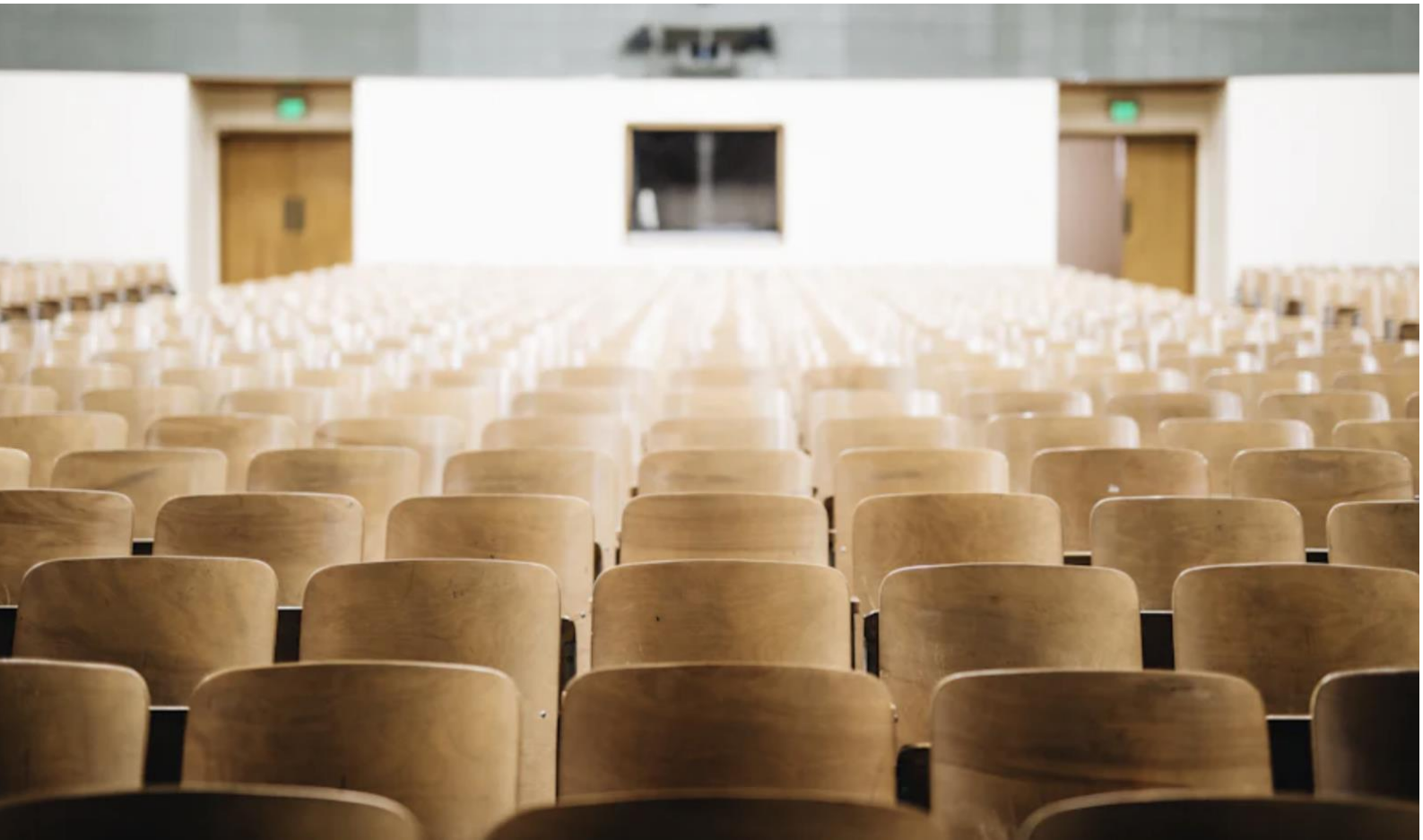


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**Education Quarterly Reviews**  
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# Digitising Education: Augmenting the Learning Experience with Digital Tools and AI

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## Abstract

This paper explores how advanced technologies like Artificial Intelligence can be seamlessly integrated with contemporary pedagogical methodologies to generate multimedia-based interactive learning content. Through a blend of AI-powered applications, self-assessment tools and interactive video platforms, the research initiative is working to develop and refine an agile e-book for high schools and more specifically for the course of biology. The integration of these technologies has led to more immersive and engaging learning environments, where students can interact with content in ways that improve comprehension and memorisation of the fundamental concepts. Teachers, who reviewed the e-book, reported that it is pedagogically sound, highly practical and therefore has great potential for adoption in high schools' classrooms on a wider scale. The findings also stress the absolute necessity for teacher training to incorporate these technologies into daily teaching practice. As educators, there is a need to learn both how the tools work and where these resources fit in the curriculum delivery. According to the research, educators are upskilled almost immediately through this integration of technologies and digital tools that significantly aids student engagement with personalised adaptive learning experiences, leading to better educational outcomes and resulting in a more innovative future.

**Keywords:** Educational Technology, AI in Education, Interactive Videos, Text-to-Speech, Digital Storytelling, Self-Assessment Tools, QR Codes

## 1. Introduction

The accelerated pace of technology is revolutionising avenues used for education, not only through the provision of tools, but most significantly, through learning as well. New technologies, such as artificial intelligence (AI),

interactive multimedia and self-assessment systems are transforming the traditional teacher-centered approach to a more dynamic student-centered system. These improvements could be transformative for personalised learning (Mayer, 2021), accessibility and the adaptability of instruction, among a variety of other uses focused on increasing student engagement (Holmes et al., 2019).

A major benefit of AI in education is that it can enable personalized feedback and differentiated instruction, so students get to learn at their own pace. AI can analyse mass student levels of data, match the gaps in learning and adapt content individually to suit all learners (Zawacki-Richter et al., 2019). Videos or interactive multimedia platforms increase knowledge retention by tapping into visual, auditory and kinesthetic learning styles to facilitate more connected cognitive processing (Mayer 2021). As such, self-assessment tools may promote greater autonomy and responsibility for learning, taking root among the students as part of their thought process while playing.

Even with a clearly advantageous use of these technologies in educational practice, the appropriateness will only prove itself if teachers are ready to present them. It has been shown that teacher competence in using educational technology is a main condition for realising its full potential (Holmes et al., 2019, Zawacki-Richter et al., 2015). Unfortunately, lack of educator training is a significant barrier; often teachers are not adequately trained and supported to use advanced tools as part of their teaching effort. Studies point to the fact that technology can remain underused in classrooms due to its lack of impact on what teachers do with students, because they still lean towards traditional practices (Trust et al., 2017) and there are several pedagogical factors behind low integration level from teacher side, apart from their techno-phobia.

This paper contributes to addressing these two issues by reporting the design of a digital learning tool in the form of an interactive e-book for secondary biology education. Featuring AI-powered interactive videos, self-assessment exercises and QR codes the e-book provides a complete digital resource for students, as well as educators. Following a review by the best teachers in the field, they concluded that this content was classroom-ready and could be easily consumed by students. Nonetheless, it also pointed out that a good teacher professional development would be necessary to allow the integration of these kinds of technologies in everyday lessons. This paper seeks to evaluate the efficacy of our e-book and highlight how professional development for teachers is critical in their ability to learn new pedagogical tools.

## **2. Literature Review**

### *2.1. AI in Education: Current Applications and Impacts*

The face of education has been completely reshaped by unlocking personalized learning experiences through enhanced instructional delivery, and this is all thanks to one thing: Artificial Intelligence. This NextGen smart education is branched from intelligent tutoring systems (ITS) through adaptive learning platforms, which analyse the student data and provide customised ways of learning. As Zawacki-Richter et al. (2019) pointed out, AI-based systems can reflect on the development of an individual learner in real-time and allow teachers to respond with personalised instruction accordingly. Holmes et al. (2019) focus on how AI can support the creation of personalised learner experiences, with a specific emphasis on adaptive algorithms that adjust content difficulty to match student proficiency. Educators can use AI to generate custom teaching materials based on their criteria (Mavropoulou, Koutsoukos & Oikonomou, 2023). Another study, conducted by Mavropoulou (2023), shows good-quality of artificial intelligence responses to questions with less time-consuming preparation for teaching materials and exercises. Educators can customise chatbots that cater to the diverse requirements of students. Educators should accept the fact that chatbots are only an adjunct and not an alternative to the traditional method (Mavropoulou & Arvanitis, 2023).

Additionally, AI has taken over the mundane work of doing administrative duties. This frees up teachers to provide their students with quality instruction and more contact hours as a whole. AI-driven grading tools, the best and most popular instantiation of this use case, help to reduce time that teachers spend assessing vast amounts of student work with consistent fairness (Luckin et al., 2016). Still, even with all the rewards, there are still pitfalls that remain. In addition, concerns about data privacy and algorithmic bias present implications that AI has been



overly relied upon for teaching (West 2018). However, for better or worse, AI is inevitably going to change the way educators teach and learn as it becomes more ingrained in our educational practices into the foreseeable future.

### *2.2. Interactive Learning Tools: Engaging Students through Multimedia*

The use of multimedia learning tools has become essential in enhancing student engagement and increasing educational content retention. The cognitive theory of multimedia learning (Mayer, 2021) states that when students are simultaneously presented with sounds and pictures or words (either digital, or printed on paper), they will be able to acquire the information. Interactive learning platforms, e.g., videos, games and simulation tools also offer an active student-centered approach allowing the students to develop critical thinking and problem-solving skills through meaningful engagement with these materials (Schindler et al., 2017).

This could include adopting platforms (Kahoot, Wordwall etc.) already widely used in classrooms to gamify learning and provide more interesting, interactive lessons for learners. Quizzes and games that provide instantaneous feedback are especially popular among students, as they permit active learning and self-paced delivery of content (Plump & LaRosa, 2017). In addition, the use of digital storytelling reinforces students' connections with the content by immersing them in it at a more personal level, allowing for higher levels of emotional and cognitive engagement (Robin 2016). Interactive multimedia affects learning and supports various educational objectives (Clark & Mayer, 2016).

### *2.3. Self-Assessment Platforms: Enhancing Student Autonomy and Feedback*

Self-assessment tools enable students to realize their learning and therefore let them take control of their education. Google Forms, Quizlet, and Kahoot are just a few platforms that make it easier for teachers to develop self-assessment exercises where they can provide direct feedback allowing students to know how well or poor they performed. Self-assessment helps learners develop autonomy by reflecting on how well they have worked towards their own strengths and areas for improvement. This process is part of a greater metacognitive transformation that enhances student awareness regarding their learning processes and strategies.

In other words, using formative assessment tools to provide students with constant feedback improves learning outcomes far more effectively than merely relying on summative assessments. Feedback should be ongoing and self-assessment formative (Nicol & Macfarlane-Dick, 2006) to help students identify gaps in understanding, but also because it encourages a growth mindset: mistakes are learning opportunities. Research has shown that students who receive frequent feedback through self-assessment platforms are motivated and perform academically better. Another reason why digital assistance is expected to improve performance is because, if the system itself allows for personalized quizzes and assessments, it could be used to facilitate differentiated instruction that caters more directly towards individual learning requirements.

### *2.4. The Role of QR Codes in Education: Bridging Digital and Physical Learning*

QR (Quick Response) codes in education have made it possible to bridge classroom materials and digital content in a frictionless manner. QR codes are one of the most efficient ways of adding links to online video resources, videos or, for example, quiz assessments and so forth, that can be integrated into traditional learning releases. Students can be directed to additional resources or interactive elements in order to round out the learning experience further, while also making use of content available just-in-time via QR codes. Research results indicated a positive attitude among students about QR Codes in that using them in courses can make the presentation more interesting, interactive, understandable, flexible, creative and meaningful (Mavropoulou & Galani, 2022).

Wu and Huang (2017) conducted research on QR codes in China, showing that they promoted quick access to learning content without the need of searching through different digital platforms. The days of being constrained by a fixed curriculum are over: teachers can create QR codes independently, taking students to individual lessons or topics, helping them dip in and out as they like. QR codes were also very popular in the m-learning literature, as it leverages the current trend of students using their smartphones and tablets for learning (Gikas & Grant, 2013).

This sort of integration between mobile technology and classroom activities works in conjunction with the idea that students can receive educational content anywhere, promoting ubiquitous learning.

### **3. Methodology**

#### *3.1. Research Design and Approach*

The research design for this study was qualitative, using a comprehensive literature review and semi-structured interviews with secondary education teachers. This was done as it allowed for a detailed examination of digital technology integration, while capturing the rich and nuanced experiences that educators undertake. They were asked to evaluate the potential benefits and hurdles of utilising interactive videos, Artificial Intelligence content, and self-assessment platforms within the classroom.

First, a literature review grounded the project in existing research on digital tools for education and focused particularly on engagement approaches that support learning. It further identified deficiencies in teacher preparation and a necessity for instructional technology staff development.

Semi-structured interviews with secondary education teachers who reviewed and used digital learning tools. These interviews covered the qualitative data around how they view interactive video, AI content creation or self-assessment platforms in terms of usability and effectiveness for student learning.

The data collection centered on collecting rich, qualitative accounts from teachers of their perceived impact that the digital tools had in teaching practice, student engagement and learning in general. Interviews also delved into the barriers to adoption and use and provided suggestions on how integration could be made more effective.

The qualitative approach yielded in-depth contextual insight on teacher perceptions of how digital tools shape their educational practices, and highlighted professional development as a crucial support to implementation.

#### *3.2. Selection of Educational Tools and Technologies*

The selection of digital tools for this study was guided by their proven effectiveness in fostering student engagement, interactivity, and personalised learning. The primary tools used include:

- AI-driven platforms for content creation – interactive video applications, Optical Character Recognition (OCR) software. The tools were included because they can be used in the creation of multimedia learning materials and increase accessibility with minimal need for automation (Holmes et al., 2019).
- The interactivity of the assessment platforms also allowed for immediate grading and student performance measurements in real time, important aspects of both formative feedback (Reiser & Wollman, 2019) and self-evaluation.
- QR Code integration to additional digital resources for students through printed material, making a link from physical learning environment to virtual.

The tools were chosen for their ease of use, accessibility for both teacher and student, as well as how they integrate seamlessly to what is already expected within the classroom. According to previous research, the selected tools meet on how powerful they might be as a channel of learning outcomes (Schindler et al., 2017).

#### *3.3. Data Collection: Teacher and Student Interaction with Digital Tools*

All data collection was designed to capture teacher and student interactions with the digital tools studied. There were a number of ways we measured student engagement:

- Completion rates of interactive quizzes and assignments,
- Participation in interactive videos through embedded questions and activities, and
- Frequency of QR code usage to access additional learning resources.

This information was auto-recorded within the aforementioned digital platforms (Kahoot, Google Forms), therefore analyses were made real-time as students engaged with these activities. In addition to this, analytics from

such platforms provided insights into how well students were doing things like their quiz scores and time spent on a particular activity, which could be used for gauging learning outcomes. In conjunction with these numerical measures, qualitative data was collected through semi-structured interviews with teachers and student focus groups. The interviews were conducted with the purpose of discovering their experiences with the use of these digital tools, what difficulties they faced, and how they perceived the impact of such a new technology on learning. Reporters investigated teachers as to how they incorporated the technologies into their classes and perceived student involvement, while students reported on how engaging as well as useful these tools were in supporting them (Flick, 2018).

#### **4. Practical Implementation of Digital Tools in Education**

The process of digitisation in education has brought about considerable changes, introducing several tools to all teaching practices that are intended for greater involvement and entertainment through multimedia activities. Many different types of tools were used in this study, the point being to provide greater stimulation and a more diversified perspective, which relates specifically to secondary-level education. Driven by recent education and learning research, such tools have been shown to improve student engagement, comprehension & retention of knowledge.

##### *4.1. Creation of Interactive Lessons Using AI and Multimedia Tools*

It all started with the development of lesson materials using Artificial Intelligence (AI). The influence of AI as a revolutionary tool in education has been recognized — that makes the content creation automatic (Watson & Clemens, 2018) and unique learning pathways can be set up based on personalisation and positioning altogether (Zawacki-Richter et al., 2019). The driving point of this project is to use an AI application, which passed through some teaching material that already existed and generated processes with Optical Character Recognition (OCR) in static content, creating a much more dynamic interactive presentation. The role of technologies such as Optical Character Recognition (OCR) software in transforming educational resources to be more accessible has been substantiated with evidence when used along other technologies like text-to-speech.

This AI platform was responsible for curating these slides as relevant, cohesive content that not only supplied titles and text but also narrated them throughout each section. Ultimately, this allowed to easily implement digital storytelling — a method of teaching, which has shown positive results in the increase of cognitive and emotional engagement among students (Robin 2016). Digital storytelling reinforces motivation and engagement due to its playful character (Arvanitis & Krystalli, 2021).

##### *4.2. Utilizing Interactive Platforms for Real-Time Engagement*

Wordwall and Kahoot are purchased platforms that also linked to the live version mentioned in lessons. Such platforms are well-known for turning the learning process into a game, they show instant results and give students an opportunity to complete self-paced exercises. Other studies have indicated that tools such as Kahoot can increase motivation and engagement, making learning more enjoyable while also becoming a significant resource for effective teaching (Plump & LaRosa, 2017).

Google Forms was his go-to tool for daily formative quick-fires and to gauge student understanding. In google forms moreover, is very easy to determine in real-time how the class had done and prepare feedback against it as fast as you can making your lesson plan more agile. Formative assessment is considered a key factor in the development of self-regulation by enabling students to monitor their learning and adapt strategies.

##### *4.3. Enhancing Accessibility and Learning Continuity with QR Codes*

In order to make the connection between in-class learning and solo study, QR codes were integrated into different types of educational materials. Due to this reason, QR codes are widely used for education purposes such as accessing additional study materials, Quiz and or sometimes video content. In the study, QR codes were affixed to selected chapters of an e-book that allowed students push a button and gain access to interactive videos. The

students would then scan these codes, which in turn allowed them to interact with material at anytime and anyplace away from the classroom (Gikas & Grant, 2013).

Made using AI and video-editing software, these videos were interactive in a way that the lessons had highlights with questions integrated within them as engagement works better than passive learning. Quizzes embedded in videos are a way to support learning as it requires them to think about and interact with the content “on-the-spot” (Mayer, 2021). In addition, the videos were accessible to students with different learning needs such as vision and reading difficulties, this was done by utilizing text-to-speech technology and AI-generated narrations.

#### *4.4. Self-Assessment and Feedback through AI and Digital Tools*

A particular emphasis of this pragmatic approach was on the development and deployment self-assessment tools that have been shown to be central in student autonomy (Nicol & Macfarlane-Dick, 2006) or learning outcomes. AI was utilized to create practice exercises, including multiple-choice questions that could be answered by the students for instant feedback. Google Forms and Kahoots as self-assessment opportunities that make it easy for students to receive feedback on where they are in the learning process. QR codes were also used to provide students with around-the-clock access to self-assessment quizzes out of classroom times.

#### *4.5. Interactive video Theory*

This research is impactful in that, the theory presentation was developed using cutting-edge technologies incorporating artificial intelligence (AI) and this work aims to lay foundation for numerous future works. So, firstly the learning material in second class was put through Optical Character Recognition (OCR) technology which is a reading machine that can read printed or digital text using Hardware Enhancements. With that data, the AI then auto analyzed and structured the material so it could be turned in to slides — providing slide titles and content for each given type of class. The output material was scrutinized, approved and the next stage in process is to produce slides for each of these features.

The images were then organized in order of presentation, and the slide titles — to scaffold coherence and comprehension for learning purposes – were later added by a video editor. Intro narration is added with a Text-to-speech voice over of the article, to make it more watchable. But to make it as more human-like and personal telling the story was simulated with a talking image technology that could represent virtual appearance of the teacher, just for an introduction to concept. This was important especially for their first exposure to the content and teacher. After aligning all the components including pictorial, textual and narrative Direct-to-Timeline of a video and final edits, export was done for uploading it on popular YouTube. Multiple-choice and fill-in-the-blank exercises were also developed using an interactive video creation tool to reinforce some of the key content points at those junctures during the videos when new ideas or information was introduced. These exercises were seamlessly integrated into the interactive segments of the video where students could verify their comprehension as they watched.

QR code technology was used to allow students to scan the QR and go directly. These QR codes were embedded in an e-book that came with the course, essentially fusing two disparate realms of education into one learning experience.

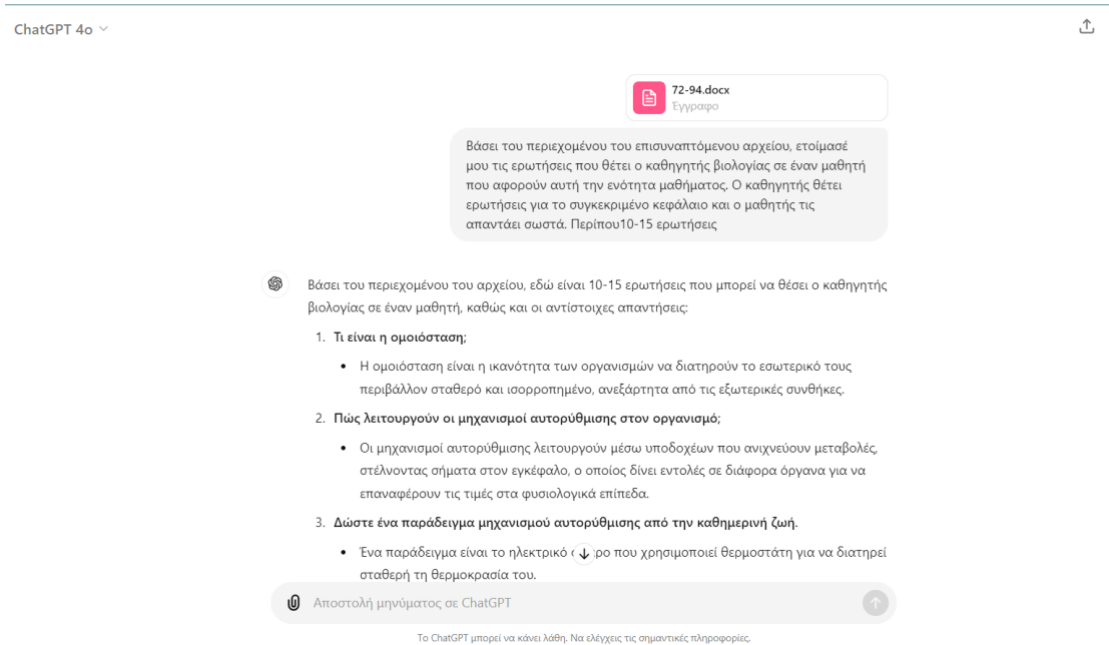


Image 1: use of artificial intelligence

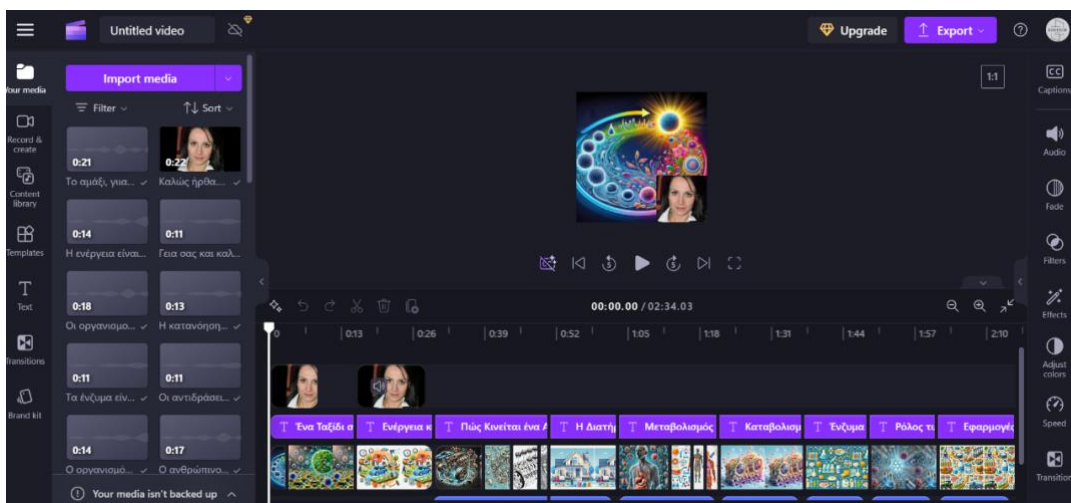


Image 2: video editing – digital narration

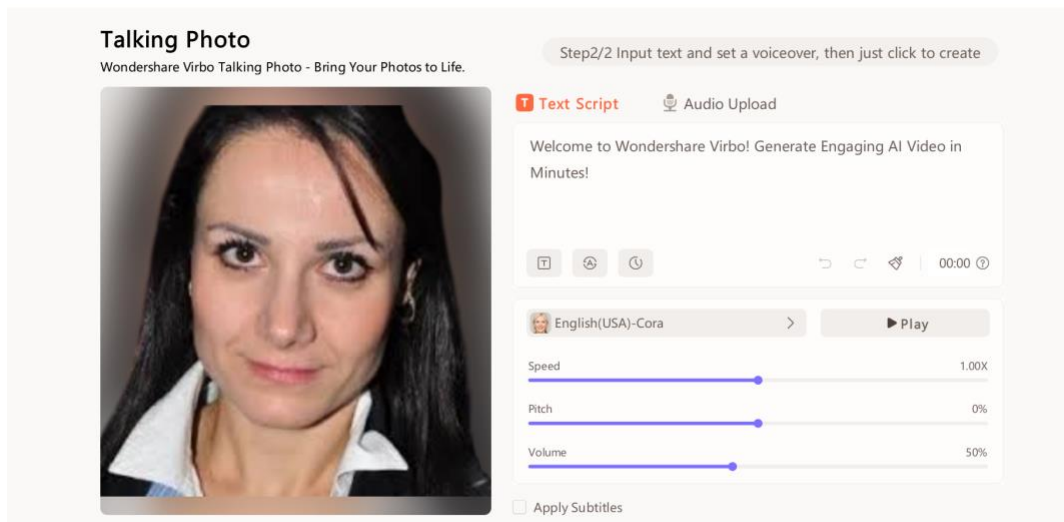


Image 3: talking image

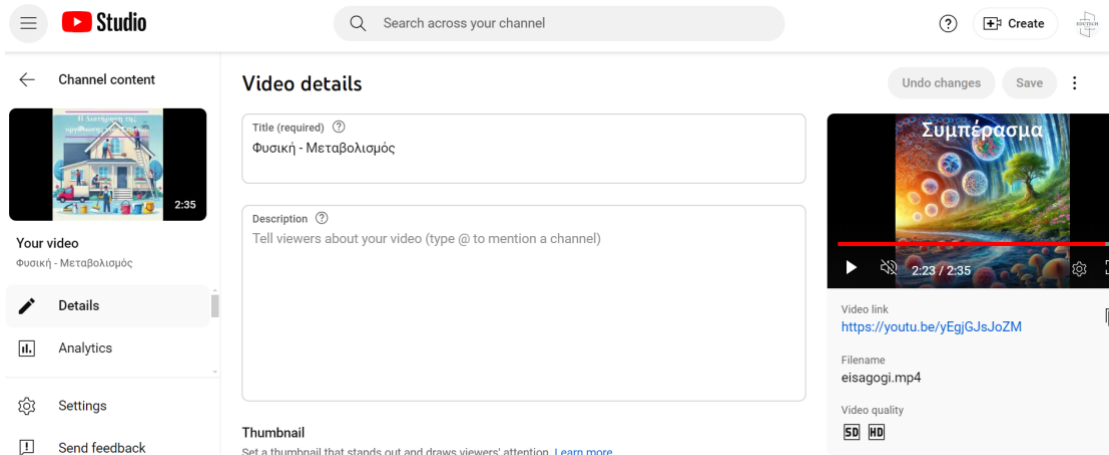


Image 4: Use of the platform YouTube

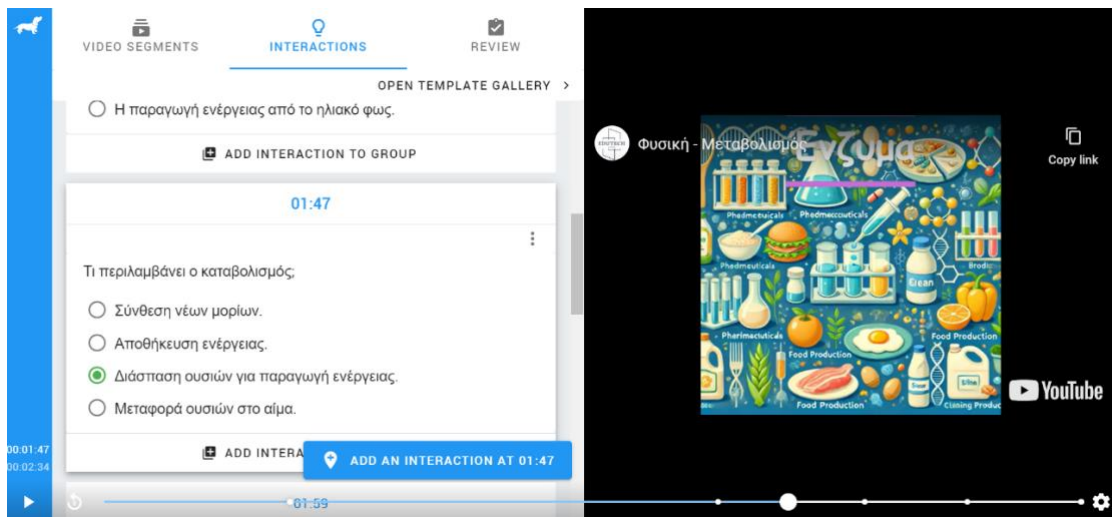


Image 5: Interactive video

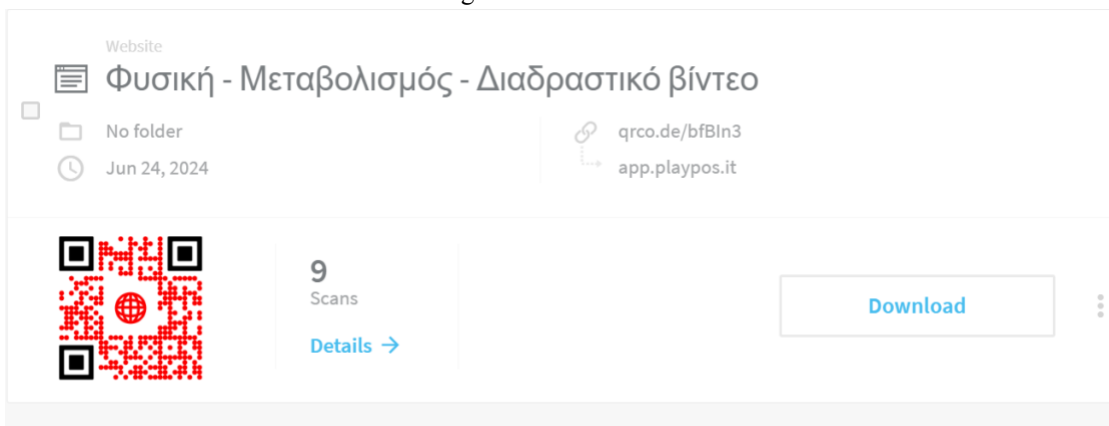


Image 6: QR Code generator 1

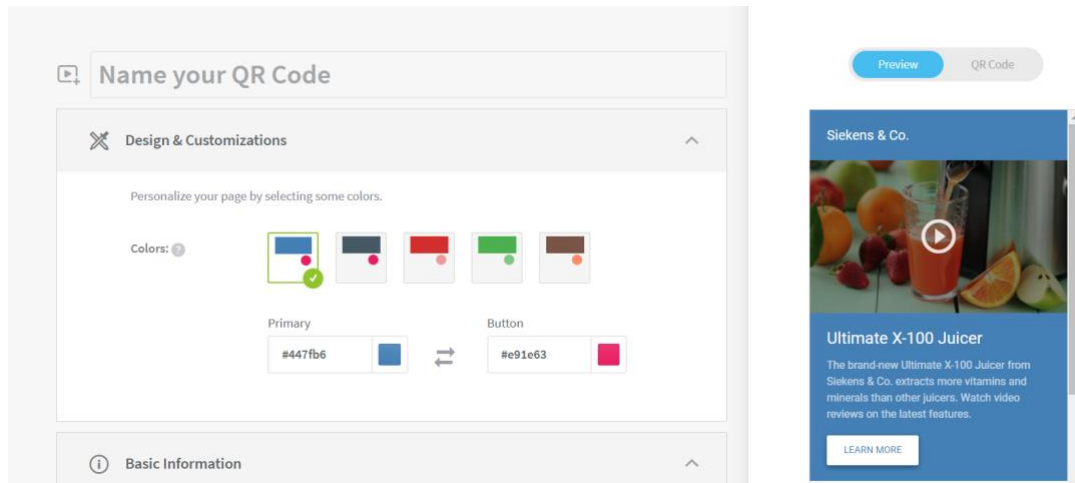


Image 7: QR Code generator 2



Image 8: QR Code generator 3

#### 4.6. Questions and Answers

Then an artificial intelligence (AI) dialogue was prepared between Teacher-Student to enforce the module concepts. The function of the AI was to provide a conversation script with questions about the learning material, and its right answers. The dialogue was constructed to invoke critical thinking and involve the learner with more direct contact between them concerning what they were learning. This way, students delve deep into the concepts and this helps them in a better understanding of the topics.

This scenario was then re-cast to a digital learning environment using digital storytelling software. Digital storytelling is a great way to incorporate text, audio and images for better engagement in learning. As Screen Dialogue detects different audio formats at the level of dialogue lines as we go frame by frame and takes note conformity to its best guesses, this became a two-step process: converting dialogue scenes into video massaging using specialized video editing software; then text-to-speech-based narrator treatment. The technology provided the form of natural sound to produce dialogue, keep it accessible and make viewing an enjoyable experience for students.

The video is stored on an accessible, cloud platform to grant students instant access at any time without the hassle of downloading and it makes learning easy. This QR code was also generated through a specialist platform, which seamlessly uploaded into the learning materials.



Image 9: Digital storytelling

#### 4.7. Practice - assessment exercises

Artificial Intelligence (AI) technologies were asked to generate multiple-choice exercises on the content that had been developed for a course. The AI then provided questions that whoever had to train but also gave the answers (by this creating, censuring and assuring exercises). For this exercise, various online self-assessment platforms such as Google Forms and Kahoot were used to keep track of them and incorporate it with course structure (e.g., immediate feedback which was available in google form responses also instant analysis about student performance).

These platforms are useful in that they also serve as repositories for information on student performance. Thus, they can offer more personalized feedback on a timely basis, providing differentiated instruction. The exercises were then made into QR codes so students could easily and immediately access them. All the students had to do was scan this code using their mobile phone or any other device, which would direct them straight to exercises.



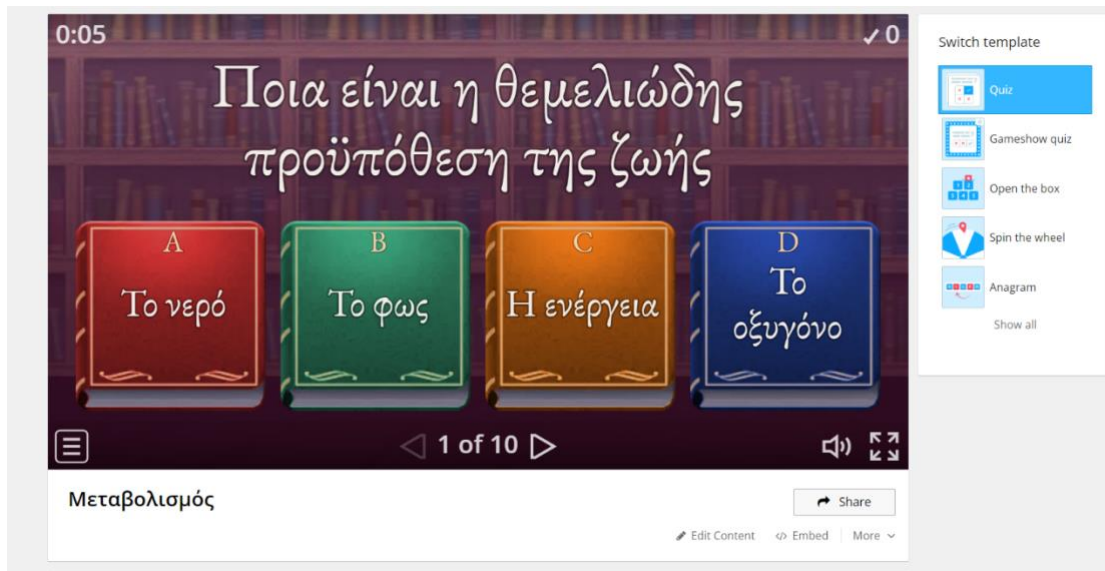


Image 10: questions multiple choice 1

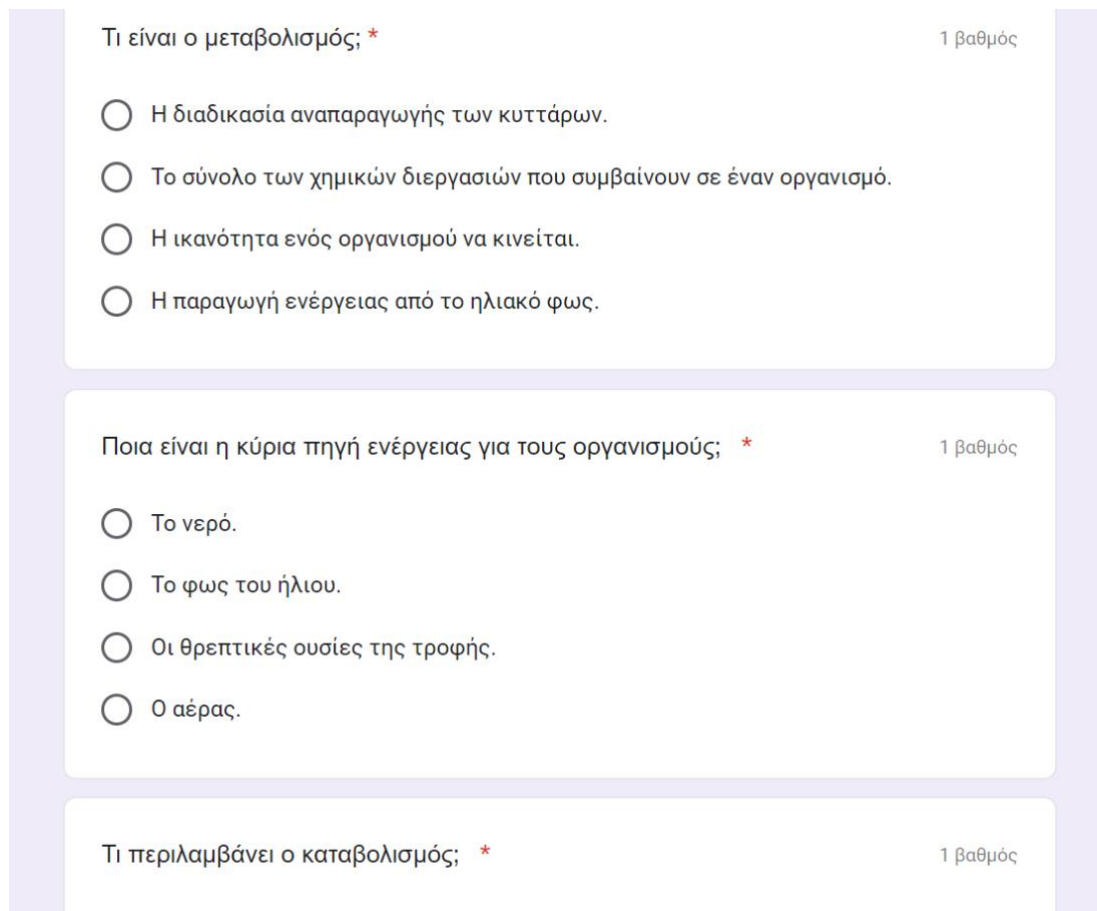


Image 11: Questions multiple choice 2

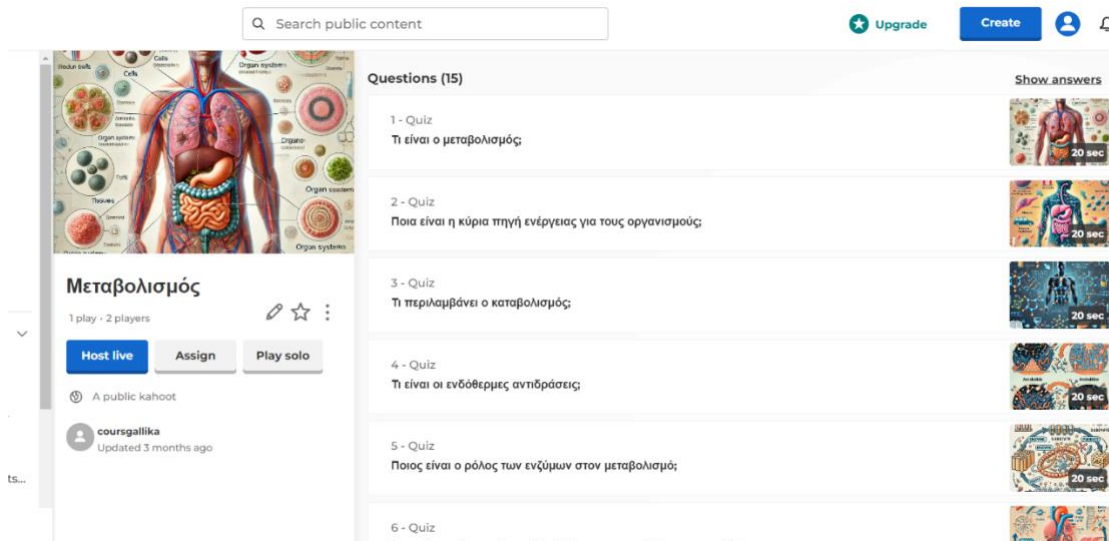


Image 11: Questions multiple choice 3

#### 4.8. E-book creation

All the created learning materials adapted to new technology tools embedded in an e-book creating platform. The cover of the e-book was developed using artificial intelligence. Next, we added its corresponding QR code for every learning object.



Image 12: e-book

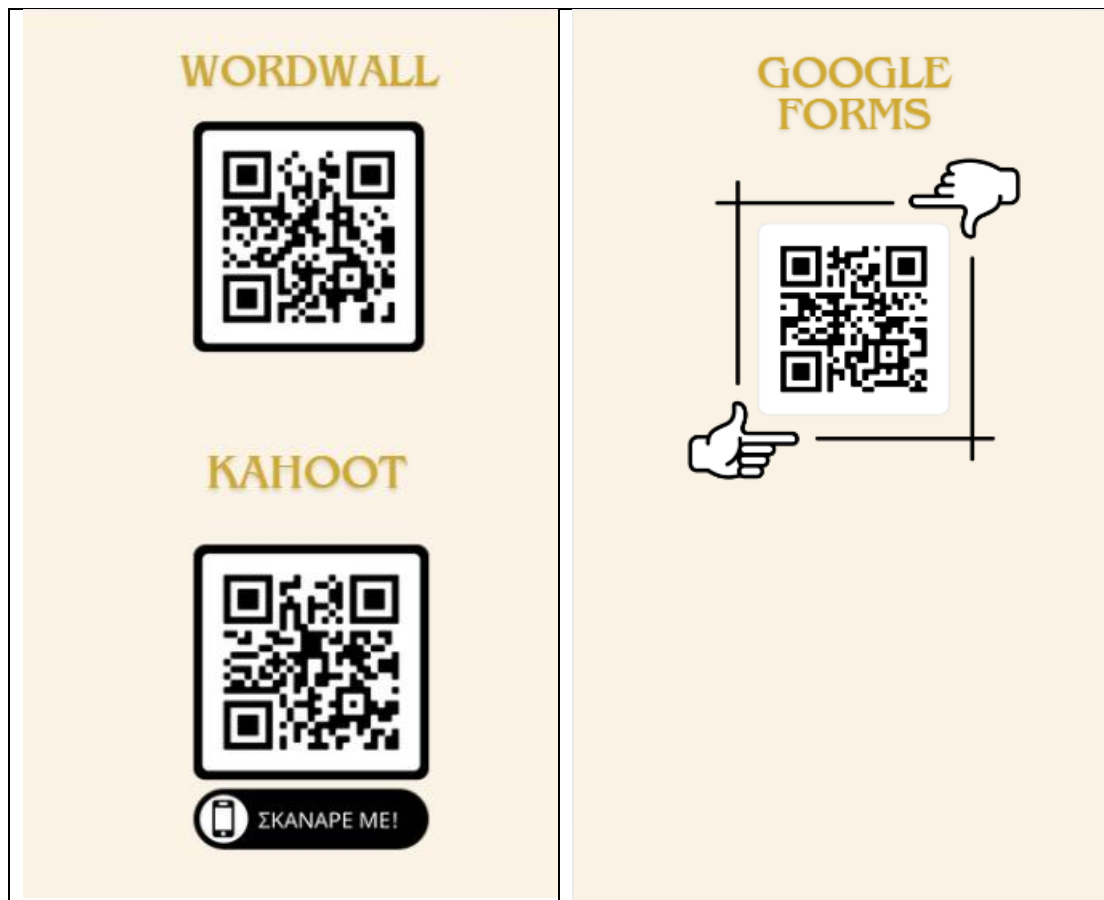


Image 13: e-book 2

## 5. Discussion

Two key insights emerged from the comments of teachers who reviewed this e-book. The learning content was suitable and effective for secondary school students, highlighting the e-books potential to engage and provide understanding about complex scientific concepts. The AI-generated content, Interactive Video and Self-assessment tools reflect what recent research supports: transformation in educational practices towards technology-enhanced learning is recommended ways to promote deeper cognitive processing, build digital literacy & cater varying learning style (Mayer 2021). The personalized nature of these tools enables students to interact with content in a way that works for them (Holmes, et al., 2019).

For example, interactive videos can provide the opportunity to enhance student engagement and motivation via in-lesson feedback or real-time elements (Schindler et al., 2017). Self-assessment platforms also facilitate self-regulating learning by promoting students to monitor their own performance and differentiate the areas where they may need additional work. These results are supported by the very strong e-book embrace from teachers and they see that it is an addition to classroom dynamics in ways such as making better use of multimedia, interactivity.

Although present iterations of these technologies have been favorably received, comprehensive teacher preparation is still required to support teachers as they further integrate emerging learning tools into their day-to-day instructional practice. For a long time, research has emphasized that the success of (particularly) educational technologies depends on whether or not teachers are able to use them appropriately (Zawacki-Richter et al., 2019; Trust et al., 2017). Digital tools are designed to be in service of learning (Passey et al., 2018) but the efficacy only emerges if teachers have adequate confidence and competency with their use (Davis & Niederhauser 2007). Without quality training, facilitating these types of learning tools is a challenge for educators and this can only slow down the impact.

Teachers who participated in the study indicated that they were unfamiliar with many of these digital tools, such as interactive video platforms and QR code integration, resulting in a need for targeted professional development to successfully infuse them within their existing instruction. Teachers with lower professional development may not be aware of the potential for use, or misuse, and underutilization /misapplication could stifle their usefulness (Zawacki-Richter et al., 2019).

This results in one of the main recommendations made by this study: structured professional development workshops. Curricula for these programs must need to address the use of each digital tool and provide good practices for incorporating them into lesson plans, automating instruction, assessment techniques as well as real-time data analysis (Nicol & Macfarlane-Dick, 2006). With help of these fundamental skills, we need to impart the same to teachers so that institutions can ensure new introductions will lead to real benefits in terms of teaching and learning. Moreover, teachers need continuous and up-to-date professional education to stay informed about the changing technologies and proven methods (Trust et al., 2017).

## 6. Conclusion

The presented study contributes to the possible integration of novel technologies in didactic work via an AI-based interactive e-book. What the teachers thought about teaching material was that it's good to go and both educators and students will appreciate this outcome. However, these digital tools are only as effective as the proficiency of those delivering instruction who will use them.

However, the teachers all stated that professional development is needed to be able to apply an e-book and comparable devices correctly based on instructional material. Teacher professional development programs that emphasize on strategies for utilizing AI, interactive videos teaching tools and self-assessment platforms together with various others like QR codes, etc. will be essential in promoting a cultural shift towards the integration of these technologies into routine instructional practices in schools.

As a wrap-up, these digital tools brought in the study have shown tremendous promise for increasing student engagement and learning outcomes; however, their success is invariably contingent upon the readiness or competency of those educators tasked with delivery. This implies for future research to investigate enduring impacts of teacher training programs in sustainable implementation processes with educational technology and their effects on student achievement.

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# Leveraging Artificial Intelligence to Enhance Oral Communicative Skills in French Language Education

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## Abstract

As part of the current study, artificial intelligence (AI), specifically the "spoken conversation" function, will be examined in relation to teaching French as a foreign language, emphasizing oral reception, production, interaction and mediation. The authors examine the use of artificial intelligence (AI) to improve oral communicative language skills by creating individualized and interactive learning environments based on the Common Framework of Reference for Languages (CEFR). Through real-time speaking, learners can improve their pronunciation, rhythm, and accuracy as well as gain knowledge of various language structures and phonetic patterns. When artificial intelligence and spoken conversation are integrated into language learning in a manner that meets the needs and proficiency levels of students, their oral skills are enhanced.

**Keywords:** Artificial Intelligence, Spoken Conversation, French Language Teaching, Foreign Language, Communicative Language Competences

## 1. Introduction

Several aspects of life, including education, have been profoundly affected by rapid technological advances. As a result of the COVID-19 pandemic, which forced educational institutions worldwide to close for an extended period of time (Krystalli, Mavropoulou, & Arvanitis, 2021), distance education, particularly vocational training, has seen significant growth. The shift towards e-learning has highlighted the importance of effective digital tools for maintaining educational continuity and supporting language learning. It has been shown that artificial intelligence (AI) is one of the most innovative technologies in the field of education, particularly when it comes to language learning (Mavropoulou & Arvanitis, 2023; Mavropoulou, 2023). By providing learners with personalized, interactive learning opportunities, artificial intelligence can greatly enhance their language skills (Mavropoulou & Arvanitis, 2023). As a result of AI applications, including chatbots and spoken conversation platforms (Mavropoulou & Arvanitis, 2023; Jeon, 2024), improve students' oral skills, students become more engaged, and

more autonomous (Mavropoulou & Arvanitis, 2023). As well as providing immediate feedback, interactive and personalized instruction, artificial intelligence facilitates learning in an effective manner. As a result of its advanced capabilities, artificial intelligence enables the creation of rich and diverse learning environments in which students can practice their language skills in real or simulated communication situations (Zou et al., 2023). Additionally, these technologies provide support for autonomous learning in addition to enhancing motivation and self-regulation.

Chatbots can be customised to meet the different needs of students by teachers (who play an important role in the learning process). It is important for teachers to adopt chatbots as aids and not as replacements for traditional teaching methods in order to achieve effective learning. Chatbots allow learners to take control of their language acquisition. The use of a chatbot with artificial intelligence combined with human experience is an attractive, autonomous and effective way of learning foreign languages. To date, these tools remain useful and are constantly being improved (Haristiani et al., 2019).

Chatbots are not intended to replace professionals in language learning. Compared to the more sophisticated artificial intelligence (AI) algorithms available today, linguistic experts have knowledge and experience. To be effective and efficient, technology-assisted language learning requires humans and chatbots to work in synergy, and this is a significant research challenge (Hwang & Chang, 2023).

There is a lot of research on chatbots in language education, which proves that the demand in this area is greater and more immediate. According to the study, the field of research on educational chatbots is still in its infancy and is expected to grow rapidly in the future. (Mavropoulou & Arvanitis, 2023).

## **2. Theoretical Framework**

### *2.1. Overview of Artificial Intelligence*

Artificial Intelligence refers to the development of computer systems that can perform tasks that traditionally require human intelligence, such as learning, problem-solving and decision-making (Russell & Norvig, 2020). Among the subfields of artificial intelligence are computer vision, robotics, machine learning, and natural language processing.

### *2.2. Subsectors of Artificial Intelligence*

Some subsectors of Artificial Intelligence are: Machine learning, Natural processing systems, Robotic systems and Computer vision. A fundamental component of artificial intelligence is the development of algorithms and models capable of learning from data and making predictions and decisions without explicit programming instructions (Goodfellow, Bengio, & Courville, 2016). In machine learning, there are three types: supervised, unsupervised, and reinforcement learning. Natural language processing systems can and do interpret, understand, and produce human speech as a technology (Jurafsky & Martin, 2023). A robotic system that uses artificial intelligence in conjunction with an operating system can and will perform tasks in the real world by sensing its surroundings and making real-time decisions (Siciliano & Khatib, 2016). Computer vision allows us to interpret and analyse images and videos gathered from the environment. Facial recognition and image analysis applications rely heavily on this technology (Szeliski, 2021).

### *2.3. Applications of Artificial Intelligence*

Artificial intelligence is a valuable tool that can enhance numerous aspects of our lives, including healthcare, education, autonomous vehicles, financial analysis, and customer service (Mavropoulou et al., 2023). Artificial intelligence is the future of language learning. It improves efficiency and effectiveness by developing personalized training programmes that provide immediate feedback to learners (Woolf, 2010). To get the most out of artificial intelligence and to exploit its benefits in education, what is needed is to grasp its core principles and potential.

### 2.3.1. Spoken conversation

This technology is also known as spoken dialogue or spoken interaction. It uses artificial intelligence to enable users to communicate naturally with computers. The system uses both natural language processing and voice recognition software to understand and respond to user commands.

### 2.3.2. Voice recognition

This technology is the process by which a computer system recognises the words spoken by a speaker. It uses artificial intelligence to enable users to converse naturally with computers. Voice recognition technology uses advanced machine learning algorithms and neural networks to improve the accuracy and speed of recognition (Hinton et al., 2012). During the understanding and response to user commands, the system utilizes both natural language processing and voice recognition software.

### 2.3.3. Natural Language Processing (NLP)

Natural language processing (NLP) as a field of artificial intelligence, involves computer interaction with human languages. NLP systems analyse, understand, and produce human language in ways that are natural to users (Jurafsky & Martin, 2019). These technologies are used to process and understand users' spoken commands and produce appropriate and understandable responses.

### 2.3.4. Applications in Language Teaching

In foreign language teaching, spoken conversation can be used to practice not only the pronunciation, but it enhances oral reception, oral production and oral interaction communicative language activities. At this point, artificial intelligence comes to answer previous research gaps by researchers working on portable learning and language learning/teaching.

In a study that focused on the use and effectiveness of MALL in second and foreign language (L2) education and the potential of mobile devices as effective tools for providing language learning materials to students in terms of acquired language knowledge and skills, it showed that there is a huge potential in the field of MALL applications, but there is also inconsistency with the standards proposed by the Common European Framework, and that there is a greater need for empirical research in order to understand the potential of MALL in foreign language learning.

In a more recent comparative study about Duolingo and Babbel, Arvanitis (2019, p. 21), points out that although learners found the language learning process very interesting and enjoyable, and consider the enjoyable features of the applications (quality of sound, graphics, audio and written rewards) to be factors of learning motivation, looking further at the communicative language skills and activities developed specifically by the Duolingo and Babbel platforms under the CEFR, we observe that they do not develop oral and written mediation, nor oral and written interaction, activities that are difficult to implement in digital environments". It also highlights the fact that "stand-alone online language learning platforms and digital applications with their pleasant nature seem to be suitable for use at low levels of language proficiency and can function as complementary and combinatorial tools in a foreign language teaching/learning process" (Arvanitis, 2019).

In a recent study (Mavropoulou & Arvanitis, 2023) researchers concluded that it is proven that chatbots can improve language learning. Through personalized, interactive and accessible language practice, learners can improve their proficiency and motivation. In order for chatbots to be effective, several factors such as their design, their integration into the curriculum and teachers' attitudes toward them need to be taken into account. The researchers pointed out that it is possible to adapt chatbots to meet the different needs of students from teachers, who play an important role in facilitating learning. It is important for teachers to adopt chatbots as aids and not as replacements for traditional teaching methods in order to achieve a harmonious and effective learning environment (Mavropoulou & Arvanitis, 2023).



Integrating spoken conversation bots into MALL applications or using them independently can significantly improve learners' language skills. It comes to complement stand-alone foreign language learning applications, as the development of spoken language production is something that is missing in conjunction with the CEFR specifications. The possibility of automated recording of the conversation that will be achieved is another strong stone that comes to contribute to foreign language learning and teaching as well.

#### 2.3.5. Examples of Voice Conversation Technologies

Examples of spoken conversation technologies include digital assistants. Amazon Alexa which is Amazon's voice artificial intelligence that resides in the cloud, assists users from anywhere there is internet access and a device that can connect to it. Alexa can play a song, read the latest headlines, dim the lights in the living room and more. Google Assistant which is a voice of artificial intelligence available on many devices like Google Home and Google Pixel can do things like answer questions, play games, remind upcoming events, manage a calendar and more. Apple Siri, is designed to work on Apple's system, which includes iOS, WatchOS, macOS and tvOS devices. This OS integration allows users to use Siri with a similar experience across different devices. Google Assistant and Apple Siri use voice recognition and NLP technologies to interact with users (Hoy, 2018). In language teaching, platforms such as Duolingo and Rosetta Stone have incorporated spoken conversation features to provide students with real-time practice and feedback opportunities.

#### 2.3.6. The European Common Frame of Reference for Languages (CEFR)

The European Common Framework of Reference for Languages (CEFR) is an important tool for language teaching and learning, providing a common system for assessing and describing language competences. The Council of Europe is establishing this organisation to guarantee transparency and consistency in language education across Europe.

The CEFR definitively sets out language proficiency levels, ranging from A1 (Beginner) to C2 (Proficient). The CEFR is made up of language activities, language skills and proficiency levels. Learners at each level of the Council of Europe (Council of Europe, 2022; Council of Europe, 2001) must demonstrate the skills that define their ability to use language effectively in a range of communicative contexts.

The CEFR is the definitive guide for developing and assessing French language curricula. Furthermore, CEFR standardization guarantees seamless collaboration and mobility of learners across Europe. The CEFR allows teachers to set clear learning objectives and adapt their teaching methods to suit their students' language proficiency levels (Little, 2006).

Oral communication is a crucial element of KEPIA. The CEFR levels provide a comprehensive description of oral production and comprehension skills, and they make it clear that learners must be able to interact effectively in a variety of language contexts (Council of Europe, 2022). Students will improve their skills in an interactive and personalized learning environment by using spoken conversation tools with the help of artificial intelligence.

The European Common Framework of Reference for Languages provides clear, definitive guidelines and standards for evaluating and developing language skills. The implementation of the KEPIA must be made more effective by incorporating artificial intelligence and voice communication into the educational process, which will enhance learners' oral skills.

### 3. Methods and Materials

#### 3.1. Research Methodology

This study will provide a comprehensive analysis of the existing literature regarding the use of artificial intelligence for oral skills in French language instruction. It will employ a rigorous literature-based approach to achieve this. This research has been conducted by collecting, analysing and synthesising previous studies, articles

and reports in a systematic manner. A literature review will establish how existing technologies impact the learning of French.

### *3.2. Spoken Conversation Tools and Platforms*

The most effective platforms for language learning are Duolingo, Babbel and Rosetta Stone. Babbel is the best language-learning platform on the market, period. Von Ahn (2013) designed it to use artificial intelligence in order to deliver personalized lessons. It offers language courses using the latest interactive technology and voice recognition. Babbel has been proven to improve pronunciation and comprehension in numerous studies (Nushi & Eqbali, 2018; Bajorek, 2017). Rosetta Stone is a long-term language learning platform on the market. It also improves pronunciation and comprehension through voice recognition technology. Rosetta Stone is highly effective, as numerous studies have shown it (Faradilla & Daulay, 2023; Firdaus, 2019; Kirova, 2011).

### *3.3. Sample and Participants*

This study is a bibliographic endeavour. The sample will therefore include academic articles, books and technical reports related to artificial intelligence as a language instruction tool. To identify studies examining the impact of spoken French conversation on learning, research and scientific journals were consulted. Using the findings of the selected sources, a data analysis compared and contrasted the findings.

## **4. Enhancement of pronunciation and rhythm in the production of spoken language**

Artificial intelligence is an effective tool for improving students' pronunciation and rhythm when learning French. To communicate effectively in a foreign language, you must master pronunciation and rhythm through extensive practice and direct feedback (Thomson & Derwing, 2015; Derwing & Munro, 2015; Saito, 2012; Celce-Murcia, M., Brinton & Goodwin, 2010; Levis, 2005).

### *4.1. Artificial Intelligence and Pronunciation Correction*

Artificial intelligence technologies, such as spoken conversation applications, are an effective tool for pronunciation practice in real-time, which improves learning. The platform's ability to identify and correct pronunciation errors help students improve their speech accuracy. Levis (2018) supports that real-time feedback is essential for developing correct pronunciation. Students can and should correct their mistakes immediately, learning from them as a result.

### *4.2. Rhythm and Vocal Skills*

According to Derwing and Munro (2015), smooth speech flow and correct accent placement are essential for understanding spoken speech. The spoken conversation application is an indispensable tool for students. It enables them to identify and suggest improvements to rhythm anomalies.

### *4.3. Practical Examples*

A study conducted by Neri, Mich, Gerosa, and Giuliani (2008) proves that using voice recognition technology significantly improves students' pronunciation and rate. This platform allows students to hear and repeat phrases, receive feedback, and adjust their speech accordingly.

The most effective way to enhance pronunciation and rhythm is to integrate artificial intelligence and spoken conversation into French language instruction. Students will undoubtedly improve their oral production and interaction skills and be able to communicate effectively in French. They will do this by receiving direct feedback and engaging in interactive practice.

### *4.4. Development of Language Structures and Vocabulary*

Learn a foreign language by developing language structures and vocabulary is a very important aspect of learning a foreign language. The use of spoken conversation and artificial intelligence to achieve this is an innovative way in this era. The technology allows learners to interact with tailored educational programs that meet their specific needs and abilities. They also have access to a wide range of language models that help them learn the language.

#### *4.5. Training in Pronunciation and Grammar*

Advanced voice recognition algorithms enable Rosetta Stone and Duolingo to identify inconsistencies and errors in students' utterances in real time with precision.

#### *4.6. Adapting to Students' Needs*

Artificial intelligence allows us to customize educational materials based on the needs of individual students. By analysing usage data and student performance, platforms can and will adjust exercise difficulty and provide specific exercises that are tailored to strengthen specific language structures.

#### *4.7. Vocabulary enhancement*

Students must be able to repeat new words and phrases in order to learn new vocabulary. AI platforms facilitate this by presenting new words and phrases in various situations, making them easier to comprehend and retain. Furthermore, the interactive exercises and games ensure students actively utilize new vocabulary, which improves retention.

#### *4.8. Real Communication Scenarios*

Students must apply language structures and vocabulary in practical circumstances when learning them. They can apply their knowledge in practical situations by interacting with simulated conversations and creating realistic scenarios using artificial intelligence. Furthermore, this enhances comprehension and usage of natural spoken language, as well as vocabulary acquisition.

Artificial intelligence and spoken conversation are a powerful combination for teaching French. Continuous feedback, customized content and simulations of real-life communication situations are the most effective and efficient ways to help learners improve their language skills.

#### *4.9. Examples and Results of Using Voice Conversation*

It is clear from studies and applications that learning French through spoken conversation is an effective method. The following are a few examples and results.

##### *4.9.1. Example 1: Duolingo*

Using the popular language learning platform Duolingo, users can improve their oral communication skills through interactive exercises that provide immediate feedback on accuracy and rhythm as they practice. Using this platform regularly leads to significant improvements in the production of oral speech according to research (Vesselinov & Grego, 2012).

##### *4.9.2. Example 2: Rosetta Stone*

TruAccent™ allows students to compare their pronunciation with native speakers and receive immediate feedback. Rosetta Stone is another popular platform that utilizes voice technology to learn languages. Research conducted by Neri, Mich, Gerosa, and Giuliani (2008) proves the effectiveness of voice recognition technology in improving students' pronunciation.

#### 4.9.3. Example 3: Google Assistant and Alexa

The use of digital assistants, such as Google Assistant and Alexa, for language learning, allows users to interact with each other and request translations, as well as practice their pronunciation. As studies have demonstrated, digital assistants can assist students in learning languages through personalized feedback and simulations of real-life conversational situations (Ji, Han & Ko, 2023; Hsu, Chen & Yu, 2023; Huang, Hew & Fryer, 2022).

#### 4.10. Summary Results

There are a number of ways in which French language learners can benefit from voice conversation:

Improved supply: Students are able to speak more accurately and naturally (Neri et al., 2008).

Improved confidence: Students feel more comfortable and confident when speaking and when they receive direct feedback.

Repeated exposure to natural pronunciations and dialogues is the most effective way to enhance oral reception (Vesselinov & Grego, 2012).

AI technologies are being used to provide students with a more personalised learning experience (Kasneci et al., 2023, Klanja-Milievi & Ivanovi, 2021) that make it easier for students and teachers to adapt to the needs of their learning (Liu, Lomovtseva, & Korobeynikova, 2020).

### 5. Oral reception

#### 5.1. Various spoken conversation standards

Artificial intelligence is an indispensable tool for learners of a foreign language. It allows them to be exposed to different phonetic patterns during spoken conversations, which improves their auditory perception and comprehension. Students must be exposed to a variety of phonetic patterns to understand accents and dialects in the target language (Vanderplank, 2010).

Artificial intelligence technologies such as voice recognition and voice synthesis allow students to listen to and interact with a variety of phonetic patterns. Repeated exposure to various voices and speech styles will undoubtedly improve the ability to understand spoken language (Graham, 2006).

Furthermore, AI-powered spoken conversation platforms provide the best learning experiences by adapting the difficulty and complexity of speech to the learner's level. Artificial intelligence can and should be used to provide feedback and strategies for improving listening comprehension by analysing student performance (Derwing & Munro, 2005).

Multimodal data (such as audio and text) can be used to gain a deeper understanding of auditory signals and develop effective auditory strategies. AI provides real-time feedback, which is essential for this process (Field, 2008).

#### 5.2. Developing listening skills

Oral reception is essential for learning a foreign language in an educational setting. There is no question that communication and interaction are fundamental skills. Artificial intelligence technology, especially those which involve spoken conversation, is the most effective way to improve students' listening abilities.

AI is the most effective means of developing effective listening skills in language teaching. It provides students with the opportunity to be exposed to natural, authentic language input, which is essential for developing effective listening skills. Spoken conversation provides the ideal dynamic learning environment thanks to its interactive nature, which allows students to interact with voice models that simulate real-life conversations (Hsu, M. H., Chen & Yu, 2023; Ji, Han & Ko, 2023; Huang, Hew & Fryer, 2022).

Students must be exposed to a variety of phonetic patterns to identify and understand different accents and rhythms. Furthermore, students who practice listening skills with artificial intelligence platforms demonstrably improve their ability to follow fast and complex language patterns (Huang, Teo, & Zhou, 2019; Lebedeva et al., 2017). Spoken conversation technologies boost students' self-esteem and confidence by providing real-time feedback. Students are more likely to recognise and correct their mistakes if they receive immediate corrections and explanations (Tyrer, 2021; Malmberg, Järvelä & Kirschner, 2014). These technologies also lead to increased student engagement and enthusiasm. Incorporating spoken conversation into language teaching not only improves listening skills, but also promotes students' active participation and critical thinking (Richards & Rodgers, 2014; Huang, 2010; Nunan, 1999).

### 5.3. Case Studies and Data Analyses

This section presents case studies and data analyses focusing on the use of AI and spoken conversation to improve the production and comprehension of spoken language in French language teaching.

### 5.4. Case studies

#### 5.4.1. ChatGPT case study

Particular interest presents the case of spoken conversation in the ai open application of ChatGPT. With the right instructions from the foreign language teacher, this service can be exploited. The student can give instructions in the application and participate in simulated conversations by practicing vocabulary, trying to pronounce correctly and also to understand the respective interlocutor (artificial intelligence). Then, as the conversation history is saved, the student can keep the transcript and work on it with the teacher or on his/her own, improving his/her skills. Also, he can discuss in any language, ask questions, translate. Here is an example of such a use.

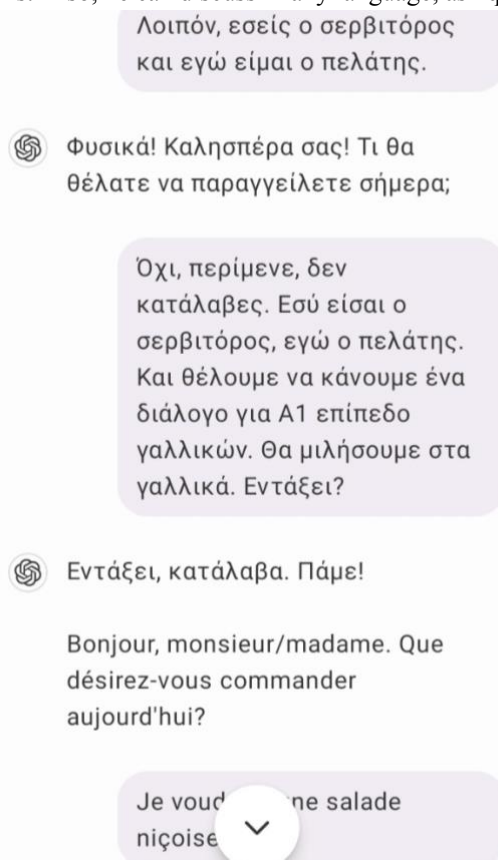


Figure 1: Example of use 1

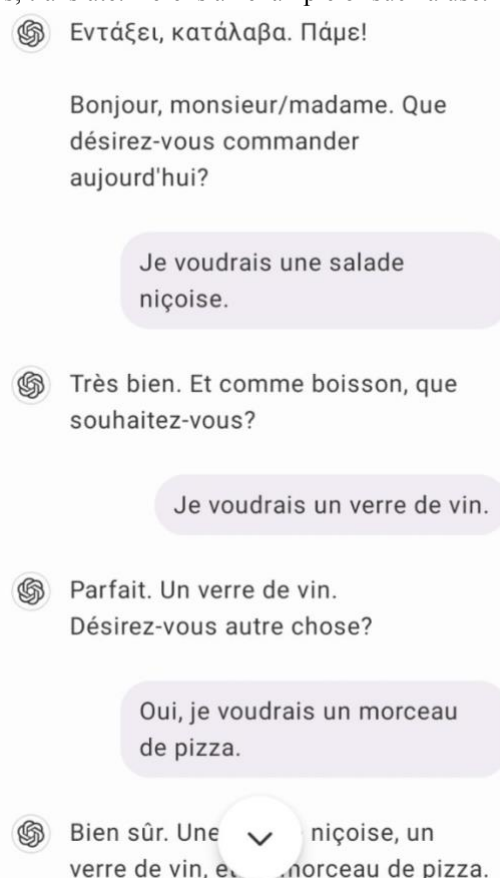


Figure 2: Example of use 2

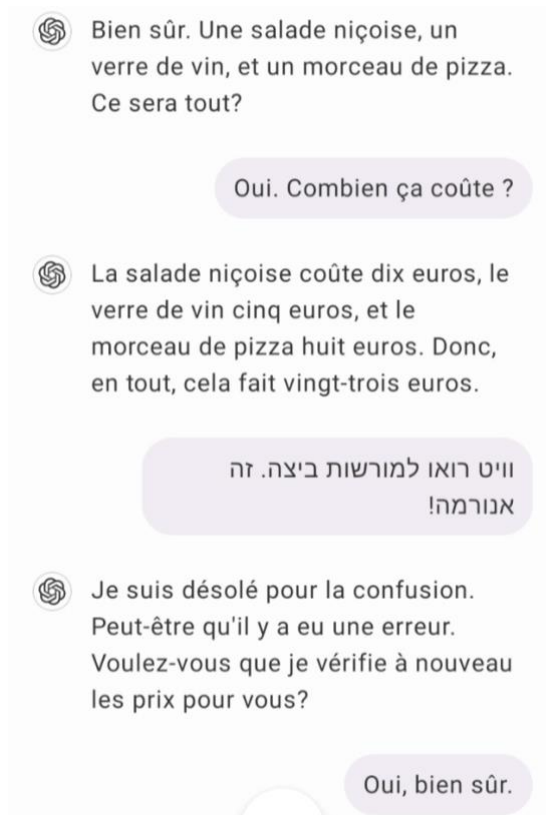


Figure 3: Example of use 3

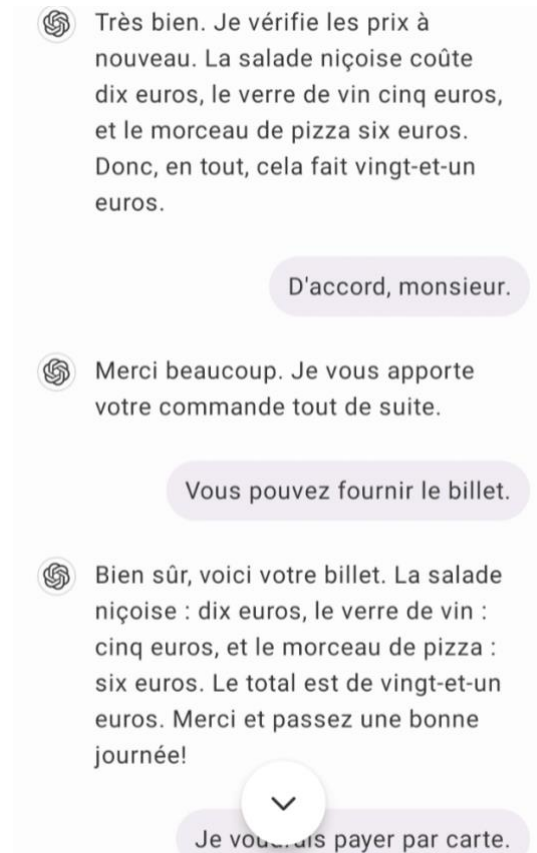


Figure 4: Example of use 4

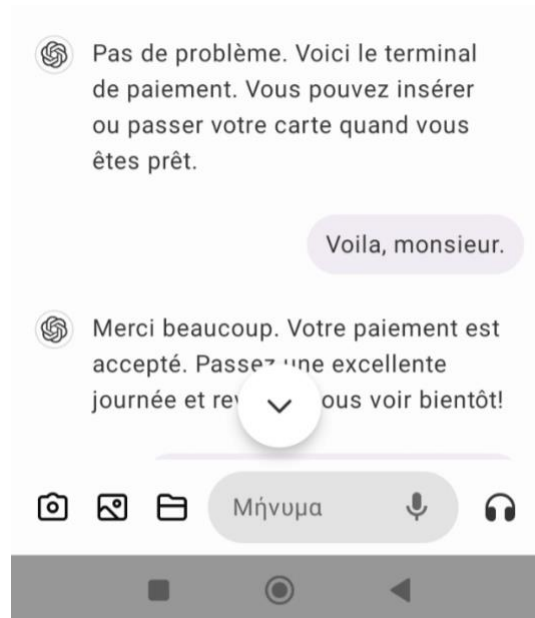


Figure 5: Example of use 5

#### 5.4.2. Case Study: Using the Duolingo Application to Improve Speech

The second case study examines the use of the Duolingo application, which incorporates artificial intelligence technologies for language learning. Research by Vesselinov and Grego (2012) showed that users of the app showed significant improvement in their language skills, particularly in pronunciation and listening comprehension, within a few months of using the app.

#### 5.4.3. Case Study: applying Rosetta Stone and developing oral skills

The third case study examines the Rosetta Stone app, which uses AI technologies to facilitate language learning. Students using the app showed undeniable improvements in oral production and comprehension, particularly when used alongside traditional teaching methods (Nst, Daulay & Dewi, 2023).

#### 5.5. *Comparative Analysis of Teaching Methods*

Studies proved that AI and traditional teaching methods are effective for teaching spoken language (González-Fernández, 2023; Lord, 2016). The results were definitive: students who used AI technologies, such as Duolingo and Rosetta Stone, demonstrated substantial gains in accuracy and fluency compared to those who adhered solely to traditional teaching methods.

### 6. Spoken conversation vs Traditional Methods

#### 6.1. *Advantages and Disadvantages of AI*

Artificial intelligence has transformed French language teaching. There is no doubt that it offers advantages over traditional methods, although there are also disadvantages. In this section, we will present a clear and objective analysis of the main points of comparison, supported by real-world reports and studies.

#### 6.2. *Benefits of Artificial Intelligence*

Personalized learning is the future. AI provides personalized lessons and tailored feedback, without a doubt ensuring each student receives the support they need to succeed. This technology allows for continuous assessment and real-time adaptation of learning content (Holmes, Bialik, & Fadel, 2019).

Students receive immediate feedback on their pronunciation, intonation, and language accuracy through spoken conversation, allowing them to correct errors immediately (Chen et al., 2021).

The best way to learn is through interaction. AI allows students to create interactive learning environments that encourage active participation and real-time practice with virtual peers (Marco-Fondevila et al., 2022).

Accessibility is guaranteed. AI platforms are accessible anytime and from anywhere, facilitating continuous practice and repetition (Johnson et al., 2019).

#### 6.3. *Disadvantages of AI*

The lack of human contact is a problem. Despite advances in technology, it is an irrefutable fact that interaction with a machine cannot fully replace human contact and the authenticity of communication with a teacher or classmate (Beerends & Aydin, 2024). Technical problems will inevitably arise. Reliance on technology can and will lead to problems due to technical errors or incompatibilities that will interrupt or hinder the learning process (Smith & Anderson, 2017). Coping with complexity is essential. AI will undoubtedly face challenges in managing the complexities and nuances of human language, especially at advanced levels or in specific communication situations (Li et al., 2022). These are two more significant barriers to AI adoption. The cost of installing and maintaining AI systems is a significant barrier to access for all educational institutions (Brown & Adler, 2021).

#### 6.4. *Effectiveness and Efficiency*

The integration of artificial intelligence (AI) and voice conversation in French language teaching is an effective and efficient method, as evidenced by multiple studies. The following reports definitively show the benefits of using AI in language education.

Pronunciation improvement is possible. L. (2019) states that the use of AI in pronunciation training will significantly improve the accuracy and clarity of students' pronunciation. Real-time vocal feedback allows students to immediately correct their mistakes, increasing the effectiveness of learning. Vocabulary and language structures are enhanced. Spoken conversation is an effective tool for developing a richer vocabulary and more complex language structures (Beck, McKeown & Kucan, 2013; Poveda, 2012). Students using AI platforms for language learning demonstrably improve their oral comprehension, as reported by Li et al. (2018). Spoken conversation provides exposure to different phonetic patterns, which enhances reception skills. Immediate feedback is key to helping students understand their errors and correct them in real time (Narciss, 2008; Shute, 2008; Hattie & Timperley, 2007). AI reduces the time required to learn new language skills. Learners who use spoken conversation for language learning complete learning programs more quickly compared to traditional methods (Sun, 2023; Zou, Reinders et al. 2023). AI tailors learning activities to the needs of each learner, allowing for a more personalised approach and increasing the efficiency of the learning process (Huang et al., 2020).

## 7. Study Conclusions

Artificial intelligence (AI) and spoken conversation are far superior to traditional teaching methods for learning the French language. Comparative studies have irrefutably shown that learners who use artificial intelligence speak their language with greater rhythm, pronunciation, and accuracy.

A number of studies have demonstrated that students who learn languages through artificial intelligence platforms perform better in oral speech production than those who learn languages using traditional methods (Shi, J., Sitthiworachart & Hong, 2024; Chang, Park, & Suh, 2024; Belda-Medina & Calvo-Ferrer, 2022; Wang & Han, 2022). The same students also showed clear signs of increased motivation and confidence during lessons. Furthermore, AI provides students with more accurate and faster feedback than human feedback. It identifies and corrects errors immediately, thus improving oral reception and oral production (AbuEl-Reesh & Abu-Naser, 2018). Spoken conversations are the best way to learn French, where oral variations can be challenging. They improve oral reception skills by exposing students to different phonetic patterns and dialects (Byrd, Huang & Edwards, 2022).

Artificial intelligence provides students with the best learning opportunities. They are interactive and flexible, and can be tailored to each student's individual needs and pace. This is a clear advantage over traditional learning methods (El-Sabagh, 2021). The best way to improve students' oral skills and make the French language instruction process more attractive and effective is to integrate artificial intelligence.

## 8. Discussion

This study proves that artificial intelligence, particularly spoken conversation, markedly enhances oral language production and reception in French language classrooms. Students taught using spoken conversation tools demonstrably outperform those taught using traditional methods in terms of pronunciation, rhythm, and accuracy (Saran, Seferoglu & Cagiltay, 2009; Lord, 2008). It is evident from numerous studies that exposure to diverse phonetic patterns through artificial intelligence significantly enhances oral reception skills and oral production skills (Ji, Han & Ko, 2023; Goh & Vandergrift, 2021, Ifenthaler, Mah & Yau, 2019).

## 9. Conclusions

### 9.1. Main Findings

This study proves that AI is an invaluable tool for learning French, particularly through spoken conversation. Spoken conversation improve pronunciation and rhythm. This is because students receive immediate feedback and corrections (Xu et al., 2019). Furthermore, familiarising students with linguistic and phonetic patterns undoubtedly enhances their oral reception skills (Li & Hegelheimer, 2013). A number of studies have demonstrated that students make significant progress when using AI tools, which allow them to advance according to their individual needs and strengths (Hwang & Tu, 2021; Chen, Chen & Lin, 2020; Holmes, Bialik & Fadel, 2019).



### 9.2. Contribution of Artificial Intelligence in Language Education

Artificial intelligence will undoubtedly facilitate a number of innovative ways to learn languages. Spoken conversations are an effective way to learn. This approach allows students to practice their language in a direct, interactive manner without the need for constant teacher attention (Nunan, 2015). This results in learners remaining engaged for longer (Chun et al., 2016). To improve understanding and communication, you must practice oral language and reception constantly (Derwing & Munro, 2015).

### 9.3. Final Thoughts and Proposals

French language learning is most effective when combined with artificial intelligence and spoken conversation. New studies must be conducted in order to examine the long-term effects in greater detail and improve existing technologies. Moreover, further research should be conducted for analysing the impact of artificial intelligence on other language skills, such as reading and writing, in order to confirm the findings in various age range and educational environments. The development and evaluation of new technologies for oral communication are being carried out in order to integrate them into existing platforms. As part of the CEFR specifications, it does not include the development of spoken language production applications, which will complement stand-alone foreign language learning programs. The possibility of automated recording of the conversation that will be achieved is another strong stone that also comes to contribute to foreign language learning and teaching. Finally, it has the potential to redefine language education, offering tools that improve language learning and comprehension in ways that were unimaginable until recently.

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# Skill Development in Teaching Ancient Greek: The Role of New Technologies

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## Abstract

Rapid technological advances in recent years together with developments in world health (COVID-19 pandemic) laid bare the necessity for changes in the structure, methods and practices of the traditional teaching process. Information society has granted unprecedented access to data, enabling rapid processing and utilization. As a result, today's students and future citizens need to obtain those skills that will allow them to process information and use it to solve real-life problems. Concurrently, the citizens of tomorrow should be able to rise to the challenges of a multicultural society. Education thus plays a decisive role, by fostering appropriate learning environments to enable students to cultivate cognitive, digital, metacognitive, social and communication skills. In this paper, a teaching scenario is proposed based on the above and according to the theory of constructivism. The scenario is meant to be implemented in the third grade of junior high school, specifically in the course on ancient Greek, in which students become acquainted with Euripides' tragedy, "Helen." This paper discusses the concept of e-learning and skills, as laid out in Binkley et al. (2012). It is noted that as part of e-learning to teach Ancient Greek, students have the opportunity both to obtain theoretical knowledge and to develop various skills, such as critical thinking, analysis and synthesis, teamwork, communication etc. Among other benefits, students will get to know ancient drama, interact with timeless concepts, develop their written and oral communication capabilities and acquire digital skills, by honing their ability to pursue independent study and work as part of a team in collaborative learning environments supported by these forms of communication. In conclusion, the prerequisites, benefits and challenges that may arise in implementing the teaching scenario in a digital environment are presented, as are means for more effective utilization of the scenario in teaching practice.

**Keywords:** E-Learning, 21st Century Skills, Teaching Scenario

## 1. Introduction

As part of ongoing efforts to develop and improve the quality of education in the 21<sup>st</sup> century, it has become crucial to identify and utilise modern, innovative teaching methods and practices aimed at helping students hone the skills necessary to adapt to a constantly changing world, where challenges abound and traditional perceptions are called into question. Skill development is a goal of educational policy both domestically and internationally. In the 21<sup>st</sup> century, the overarching objective has become to equip students with those skills that will enable them to rise

successfully to the challenges and requirements of the modern day, where technological progress, socio-political upheavals, fluidity and multiculturalism are its characteristics (GG (B/3567/2021 · GG B/3791/2021).

Sima, Gheorghe, Subic and Nancu, (2020) note that people need to exercise their creativity, experimentation, assessment and planning skills etc. to effectively rise to the changes taking place. Indeed, the use of digital tools is a vital skill in the modern day, given how we need to be ready to process information drawn from various sources, evaluate its validity and reliability and draw conclusions (Sima et al., 2020).

As part of this effort, the proposed teaching scenario makes the most of the capabilities modern e-learning provides. The scenario consists of activities aimed at strengthening student-to-student, student-teacher, and student-material interaction (Moore & Kearsley, 2012). The e-learning environment should make use of the most recent technological developments and adapt to modern teaching models, such as constructivist learning, collaborative learning and learning based on problem-solving. Studies (Al-Rahmi, Alzahrani et al. 2020) have shown that constructivist principles are fundamental to our understanding of the details of e-learning.

The scenario will be based on the theoretical principle of social constructivism. According to this principle, knowledge is “structured” together (socio-constructivism) and significant emphasis is placed on the role and contribution of a given social group in the construction of knowledge. The different ideas and opinions espoused by members of the group give rise to instability, eventually leading to the reorganisation of previous knowledge and acquisition of new knowledge within a context of communication and collaboration (Vygotsky, 1978). Collaboration especially is lent particular emphasis, as the vehicle through which members can exchange information and ideas, work out disagreements, and develop skills through common-interest tasks using new technologies. Students actively participate in e-learning, supported by a constructivist theoretical framework; it enables them both to draw information from a host of different sources and to connect it with the knowledge they have acquired previously, thus leading to new knowledge (Huang et al., 2010). Students can interact and participate in exchange of perspectives, helping along their development of a collective understanding of the concepts being studied (Kalpana, 2014).

According to the New Skills Agenda (2017), the term ‘skills’ is used to refer broadly to what a person knows, understands and can do; these skills may be further broken down into categories, such as basic skills, transferable skills, transversal skills, technical skills, horizontal skills etc. (as mentioned in Laloti, 2021:15). According to the OECD (OECD, 2019:16), skills are ‘a person’s ability to responsibly use the knowledge they acquire to achieve their goals’. This paper uses as its frame of reference the 21st-century curriculum of Binkley et al. (2012), which includes ten competences vital for citizens in the 21<sup>st</sup> century.

Table 1: The KSAVE model for 21st-century skills

<b>A. Ways of Thinking</b>
Creativity and innovation
Critical thinking, problem-solving, management and decision-making
Learning to learn: Metacognition
<b>B. Ways of Working</b>
Communication
Collaboration (teamwork)
<b>C. Tools for Working</b>
IT literacy (source research, evidence, etc.)
Technological literacy
<b>D. Living in the World</b>
Citizenship
Life and Career
Personal and Social responsibility with cultural awareness and skill

Source: Binkley et al., 2012

E-learning environments enable students to develop cognitive, metacognitive and digital skills, as well as to communicate and collaborate to achieve learning goals. To foster their cognitive skills, we encourage students to posit questions, seek information, solve problems, evaluate sources of information and effectively use the information they find. We also place emphasis on developing their written and oral communication skills. To cultivate their social and communication skills, we create opportunities for collaboration, interaction and teamwork, facilitate discussion, encourage dispute management and support interpersonal communication. To cultivate metacognitive skills, we focus on critical thinking and establishing connections between various cognitive fields; we also encourage reflective knowledge management and self-assessment (Kasimatis & Papageorgiou, 2013).

The proposed teaching scenario presents itself as an e-learning environment that enables students to cultivate all these skills. The literature has not yet reached a consensus regarding the term ‘e-learning.’ At times it is used to describe the use of Information and Communication Technologies (ICT) in teaching and learning, at others to describe hybrid approaches to education which combine face-to-face and distance e-learning, at still others exclusively to describe teaching conducted via the internet and available either asynchronously or synchronously or in a mix thereof. Thanks to the spread of the internet, the terms ‘e-learning’ and ‘online learning’ have witnessed a massive increase in use, replacing or coming to be seen as equivalent to the previously dominant term ‘distance education’ (Karalis & Lintzeris, 2022). According to Keegan (2001), the term ‘distance education’ refers to educational processes conducted “beyond the four walls” of a conventional classroom. It may be either synchronous or asynchronous, and is characterised by the physical separation of student and teacher as well as the support of the appropriate technological tools that enable the teaching process and the transmission of educational content.

E-learning or technologically-assisted learning refers to a learning process in which Information and Communication Technologies (ICT) -notably the Internet and the World Wide Web- are used to facilitate the learning and knowledge acquisition process by establishing relationships and interactions between teachers and students as well as between students, with the inclusion of the available educational material (Petropoulou, Retalis & Kasimatis, 2015). It is defined as a teaching approach that makes the most of digital technology to facilitate interaction, collaboration and exchange of knowledge between students and teachers (Garrison & Anderson, 2003). It encompasses web lessons, blended learning and massive open online courses (MOOCs) (Allen & Seaman, 2017).

## 2. Teaching Scenario

### 2.1 Target group: students in the third grade of Junior High School

The class will be sorted into groups of four to five (4-5) students.

This class will be students’ first foray into the world of tragedy as a genre of ancient Greek poetry. Through the scenario students will become acquainted with the parts of ancient drama and the structure of ancient tragedy and will attempt to interpret the terms “hubris,” “nemesis,” “tisis,” and “tragic irony”.

Course: Ancient Greek – “Helen,” by Euripides

Duration: The scenario will be implemented over a two (2) month period

Methodology – Tools: synchronous and asynchronous distance learning, MSTEAMS, padlet, rubric, concept map, quizzes, wiki

### 2.2 Goals

The goal of this teaching proposal is to demonstrate the role e-learning can play in teaching ancient Greek.

Upon completion of the teaching scenario, students are expected to be able to:

- Recognize tragedy as one of the genres of ancient Greek drama.
- Identify correspondences between the structure of tragedy and that of modern theatre genres.
- Describe the concepts of ‘hubris,’ ‘nemesis,’ ‘tisis,’ and ‘tragic irony.’

- Identify the parts of ancient theatre.
- Recognize the anti-war message of the tragedy.
- Draw conclusions, by investigating and utilising sources.
- Develop cognitive, social, communication (collaboration, team spirit, conflict management etc.) and metacognitive skills (reflection, self-regulation, learning strategies etc.).
- Develop digital skills (information-seeking, data analysis, problem-solving, digital content creation etc.).

### 2.3 Conditions

Appropriate identification of research participants is critical to the science and practice of psychology, particularly for generalizing the findings, making comparisons across replications, and using the evidence in research syntheses and secondary data analyses. If humans participated in the study, report the eligibility and exclusion criteria, including any restrictions based on demographic characteristics. E-learning (synchronous and asynchronous distance learning) may be exceptionally useful when supported by a planned, student-centric approach. Nevertheless, to ensure the effectiveness of the e-learning process, conditions associated with the learning goals, the teacher, the method, the characteristics and the interests of the students, as well as the technological equipment, should all be taken into account (Mouzakis et al., 2004). More specifically:

- Ensuring a reliable communication network
- Planning the appropriate educational material
- Teachers with appropriate knowledge and (organisational, digital, educational, social) skills
- Appropriate teacher preparation
- Organisation of lessons according to course objectives

### 2.4 Description of the teaching scenario

Describe the procedures for selecting participants, including (a) the sampling method, if a systematic sampling plan was used; (b) the percentage of the sample approached that participated; and (c) the number of participants who selected themselves into the sample. Describe the settings and locations in which the data were collected as well as any agreements and payments made to participants, agreements with the institutional review board, ethical standards met, and safety monitoring procedures. The teaching scenario is meant to be implemented following the introductory lessons, after which students will have a rough idea of the subject of ancient Greek, specifically ancient tragedy, a subject they first come into contact with in the third grade of junior high school.

Students will brainstorm ideas, taking cues from an image that shows a scene from ancient tragedy and the prompt “*what comes to mind when you think of the word tragedy?*” and noting keywords associatively on their padlets. This exercise is not assessed. The padlet will include scenes from the tragedies of Euripides with relevant information.

1. The teams will observe a video from the tragedy “Helen” on MSTEAMS via synchronous distance learning. The video aims to pique students’ interest and provoke discussion. After viewing the video, students will document their thoughts on the padlet, prompted by the question “Did you understand the change in episodes in the tragedy you just watched? How many episodes does this tragedy have?”. The goal is to introduce students to the concepts and motivate them to develop preliminary thoughts on the topic of the teaching scenario, which will be the focus for elaboration in subsequent specific activities.

Students will be divided into groups, each group represented by a member. Each group will be provided digital worksheets with learning activities. Students will be tasked with analysing information and processing data in a constructive learning context. We will ensure the appropriate learning environment and foster a positive, supportive atmosphere to ensure active involvement and interaction between participants in the learning process.

The worksheet will include the following activities:



2. Visit the website Greek Language Portal <https://www.greek-language.gr/greekLang/index.html> and find definitions for the words 'hubris,' 'nemesis,' 'tisis'. Subsequently, compare the modern meanings of these words and find the context in which they are used. This activity will help students understand the continuity of the Greek language.

3. Students will be required to find information and images regarding ancient theatre on the internet and use them to prepare a video using the AI application <https://www.idomoo.ai/> which enables quick and easy video creation. The student teams will have one week to create their videos. They will then present their videos to the other teams via screenshare on MSTEAMS. A discussion will follow after each team has shared their video.

4. Student will assess themselves and their peers through a digitally created rubric at the webpage <http://rubistar.4teachers.org/index.php?screen=NewRubric>. They will collectively assess their video based on specific criteria, as well as videos of their choice from other groups. The criteria included in the rubric will concern, indicatively, content, duration, purpose, number of applications used, maintaining interest etc. The rubric the students will create will be holistic; students will fill in their rubrics after the videos are presented and discussed. By using the holistic rubric as a self-assessment tool, students will have the opportunity to self-assess in a group context, guided by specific criteria and generating a comprehensive picture of their overall performance and final product (Kasimatis & Papageorgiou, 2019).

Research by Kasimatis, Papageorgiou & Kouloumpis (2019) has shown that rubrics enable students to assess their efforts, allowing them to understand their usefulness as assessment tools. Students will self-assess through reflection and feedback regarding the development of 21<sup>st</sup>-century skills, such as team spirit, collaboration, time management etc.

5. Students will collaborate via MSTEAMS to create a conceptual map. To create the map, they will use software available at <https://bubbl.us/>. There, students will be able to express and associate the concepts of the course. The conceptual map activity will help students develop their metacognitive skills.

6. Students will be tasked with composing texts on the subject of war. Each team will have a different subject. The tragedy has strong anti-war sentiments, with its overarching message being the futility of war as expressed with the choice of Helen's 'idol.' Indicative questions:

a. "All wars need an embellished pretext to be declared. Write down and analyse what you consider to be a pretext/excuse to start a war".

b. "Helen's monologue allows Euripides to present how war impacts the defeated. What do you believe are the consequences of war? Take into account the ongoing wars in Ukraine and Gaza in your answer".

c. In the tragedy, Helen's brothers (the Dioskouroi) provide a resolution to the plot, as a "deus ex machina". Unfortunately, this is not the case in war: the opposing sides need to sit down together and flesh out a solution. Think about how wars may be stopped.

Students will have a specific deadline to complete their answers. Students and their groups will be able to make interventions, add material and improve their texts within the wiki environment. Students will collectively shape their texts within the wiki environment and through asynchronous communication with their peers. They will also reflect on the initial structure of their text with the teacher, reworking it and gradually producing more complex texts. Students will thus become involved in an ongoing process of collective reflection to produce a final text. The wiki environment allows students to develop their writing (communication skills) and enables them to identify the degree of participation in the process.

7. Search online for paintings with anti-war content and add them to the padlet together with the corresponding content.

A possible means of extending the teaching scenario could be finding connections between the tragedy and the Iliad, more specifically in how Helen is presented in the latter. In addition, students can also compare the depictions of war between the two works. Students can be tasked with identifying anti-war messages in the epic. Using e-

learning and AI, students could form groups and search the internet for anti-war songs; they could then use these songs to create a video with Lucas AI video creator (<https://www.idomoo.ai/>), which they will present via MSTEAMS. Furthermore, the tragedy “Helen” could also be taught in an interdisciplinary context, as part of lessons on Modern Greek Literature. Students will be tasked with searching for poems referencing Helen of Troy on the internet and presenting how they depict her.

#### 2.4.1 The teacher’s role

The teacher will posit questions aimed to actively engage students and answer their questions. The teacher will also properly distribute roles to students, utilise the opportunities provided by technology and be prepared to solve any technical issues. Thanks to the opportunities provided by distance learning, teachers will be able to share educational material with students, encourage communication with them and become the link between students and learning, overseeing the distance learning process (Vogiatzaki, 2019; Amorgiannioti, 2020). Teachers working in an e-learning environment should possess communication skills, social skills, digital as well as metacognitive skills. Teachers in e-learning should organise learning activities, such as:

- Taking advantage of the opportunities provided by e-learning.
- Planning learning activities.
- Using paralinguistic and extra-linguistic elements.
- Planning educational content.
- Planning assessments and providing feedback as part of the formative and final assessment.
- Ensuring active engagement and motivating all students throughout the teaching scenario.
- Promoting dialogue and non-verbal communication between students.

#### 2.4.2 Assessment

Assessment will take the form of self-assessment and external assessment both over the course of the scenario and at its conclusion. Each team member will assess themselves and their peers. In addition, each student team will assess the other teams. Assessments over the course of the teaching scenario are formative and constitute a reflective process for both the students and the teacher. Collaborative learning environments favour external assessment, enabling students to assess each-other and provide feedback (Ndoye, 2017; Homayouni, 2022). Furthermore, collaboration between students helps hone social skills and collaborative behaviours, a demonstration in practice of Vygotsky’s concept of social constructivism, that learning takes place in a social context (Homayouni, 2022). As part of the final/summative assessment, students will answer quizzes prepared by the teacher on Classmarker: (<https://www.classmarker.com/online-testing/quiz-features>). Students will complete the quizzes online. This tool will also be used to provide students with feedback, enabling reflection on their answers. This method allows students to develop metacognitive skills.

### 2.5 Benefits of e-Learning

E-learning provides a host of new possibilities for communication and interaction between the people involved in the educational process. The advantages of e-learning may be summarised as follows:

- 1) Flexibility: better management of time.
- 2) Cost: video conferencing is an affordable, educationally expedient tool for synchronous interactive communication that enables students and teachers to participate in internet-based learning activities completely bypassing the need for specially equipped spaces and reducing transportation costs.
- 3) Access to a greater number of courses
- 4) Self-regulated learning: students themselves dictate the pace of their learning. E-learning facilitates a learning process adapted to individual student needs and time, drawing from their interaction within the e-learning context (Coursaris & Sung, 2012).
- 5) Encouragement of meaningful dialogue between those involved in the learning process.

Synchronous distance learning shifts both learning itself and the roles of student and teacher. Students actively participate in a dynamic interactive environment characterised by collective, distance knowledge-building in real time (Anastasiadis et al., 2012; Armakolas, Panagiotakopoulos & Magkaki, 2018).

In synchronous distance learning, interaction is key to engendering a social learning environment which allows students to exchange ideas and forge a sense of community, providing opportunities to develop student-to-student and student-teacher interaction (Alqurashi, 2017). Students can pose questions, work as part of a team, access sources of information and combine electronic communication tools to discuss and complete learning activities (Armakolas, Panagiotakopoulos & Vasilopoulou, 2014). Students can work on worksheets and have opportunities for discussion, exchange of opinions, disagreements and conflict management.

### *2.6 Benefits of e-Learning*

On the other hand, however, e-learning has its share of issues relating to assessment and practicable effectiveness, such as technical difficulties, lack of face-to-face interaction, limited access to resources, not to mention issues of self-motivation and keeping the motivation to study vibrant (<https://elearningindustry.com/>). Sirohi (2007) notes “the lack of personal contact” as the major drawback. E-learning does away with face-to-face interaction, which is crucial, among others, to the development of individual personality.

### **3. Conclusions - Proposals**

Through the teaching of Ancient Greek via e-learning, students can interact with ancient theatre and come into contact with timeless ideas, all while acquiring digital and social skills that are at the forefront of global educational policy in the 21<sup>st</sup> century. In addition, students are also able to learn at their own pace independently and in a group context, in collaborative learning environments supported by such forms of communication.

E-learning increases learning incentives, offers opportunities for students to develop and hone their cognitive, social and digital skills, bolsters their research capabilities and facilitates collaboration. With the appropriate planning, teaching that makes use of e-learning is more than capable of rising to the needs and expectations of a group, using methods and techniques that promote the active involvement of participants, expanding and covering any needs that may arise during the learning process.

The assessment available through the e-learning environment -specifically via MSTEAMS, but also the other web software- is associated with reflection, defined as a postcognitive activity drawn from the review of previous activities, and may assume the form of either self-review (by the person who completes the activities) or by external review by one’s peers. Compared to traditional teaching, e-learning provides students the spatial and temporal freedom to act outside the classroom. This approach improves the learning process and facilitates experiential learning.

To conclude, we propose the planning and implementation of teaching proposals to develop 21<sup>st</sup>-century skills in e-learning, with appropriate material for students and true to the principles of distance learning. These will allow students to develop the appropriate skills to rise, as active citizens, to the challenges of modern society. Finally, we propose large-scale research on the cultivation of 21<sup>st</sup>-century skills in students within e-learning environments. As for the teachers, they should have undergone the appropriate training regarding the basic e-learning principles, applications and methodology, given that they need to encapsulate organisational, social, educational and digital skills in their role as educators (Zympoulaki, Loumpaki, Konstantinou & Fragkaki, 2022).

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# Consumption of Water, Environmental Awareness and Class Consciousness: Mismatches in the Praxis

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## Abstract

If there is an inequality in the supply and consumption, would there be an equality in the duty of its preservation? That is the central issue of the paper. The objectives of this study were: i) to analyze water consumption; ii) to assess the environmental awareness of water consumption; and iii) to discuss the class consciousness regarding water supply between socioeconomic classes in the municipality of Recife, State of Pernambuco (Brazil). Households, as a sampling unit, were analyzed in this work in a census form. Per capita water consumption is unequal between socioeconomic classes. Formation for environmental awareness does not prepare individuals for environmental praxis, and to discuss inequality of rights and justice for access to primary resources, but teach them to respect equalities in duties. Class consciousness, by those least favored, should be the first step in environmental education for not only equalizing water consumption, but also eradicating the usury in its use by classes with higher purchasing power. The continuous reproduction of socioeconomic classes that have environmental awareness and do not have the environmental praxis shows that something is wrong since the formation of the subject that maintains the status quo, legislation that does not make social and environmental justice.

**Keywords:** Class Struggle, Inequality, Education, Water Resources

## 1. Introduction

The per capita consumption of water indicated by the United Nations is 110 L day<sup>-1</sup> (Un, 2016), to meet basic needs that involve hygiene, nutrition and hydration of the individual, as well as other uses inserted in the home environment (e.g. cleaning, gardening, steaming, etc.). There is a worldwide inequality in this per capita consumption, there is country, like the United States, that per capita consumption is 575 L day<sup>-1</sup>, and there is country, like Mozambique, that per capita consumption is 4 L · day<sup>-1</sup> (Data 360, 2023). The countries that are most politically and economically able to abstract, store and distribute water are the ones that consume the most, as seen by the record of consumption on a decreasing scale of developed countries, passing through the emerging ones (e.g. Brazil: 185 L day<sup>-1</sup>), until reaching the developing countries (Hoekstra & Chapagain, 2007). These inequalities are also perceptible at municipal levels, correlated mainly to the space in which the individual resides

(Hussien et al., 2016). The spaces with the highest index of urban development (availability) and with a population with higher income, consume more water, for their purchasing power of the product (water) and their services (e.g. cleaning of the environment) (Chenoweth et al., 2016).

In urban spaces, with the urbanization of capital (Harvey, 1985), real estate speculation and pressure define water supply policies not only spatially but temporally (quantitatively) and qualitatively (Willis et al., 2013). Inequality is perceptible in infrastructure and in the quality of services provided related to water supply, in different spaces marked by socioeconomic segregation (March & Sauri, 2016). Lower water pressure, turbid color, physical and chemical contamination, biological contamination, different forms of consumption measurement (upwards), and rupture in pipes were constantly recorded in regions with lower Human Development Index (HDI) (Abubakar, 2016).

Nonetheless, government advertising campaigns encourage everyone to reduce water consumption and collaborate in maintaining supply infrastructure (Brondizio & Le Tourneau, 2016). If there is an inequality in the supply and consumption (inequality in rights), would there be an equality in the duty of its preservation? That is the central issue of this work. Not only in the formation of a reproductive culture and without criticism (publicity campaigns) does equality prevail in duty when there is no right, and also in the curricula of elementary education to higher education (Giroux, 2014), which mainstream the theme of environmental education. The construction of a society of order, alienated and consuming (concept of citizenship in the present world) (Bauman, 2007) also goes through the so-called construction of environmental awareness (role of environmental education).

With the reification of nature (Marx, 2013), the so-called “ecological subject” seems to approach more of a consumer of products with a ‘green seal’ than a being integrated into nature and its holistic complexity. The “ecological subject,” epistemologically disciplined, is an object of ecological marketing, which is not interested in mitigating and eradicating local and global environmental impacts, but in a circumstantial activist appearance or in the profit of its brand (Peattie & Crane, 2005). The ecological being would be the one who through the affective and collective memory visualizes changes of scenery and situations of scarcity, and, envisions an inhospitable future, in which by taking this awareness in this articulation of time, or potentially a new lifestyle for itself, for the other and for the planet as a whole (Steil & Carvalho, 2014). However, this environmental awareness does not lead to a potent individual in a praxis (Gilg et al., 2005). The individual in question, who possesses the environmental awareness and even skills for it (e.g. diplomas), is full of the knowledge necessary to practice sustainable in the environment (holistic relations), so that it maintains a habitable planet without anthropic dystrophisms. The individual who knows and who is ‘competent’, most of the time, is distant from the one who is pleasant and commits the action: the pleasant subject (Santana, 2016).

Environmental education with the homogenization of the individual’s duty to environmental issues, and with the distance from formation to action, does not reflect and is not critical, such as for example, the so-called ‘pedagogy of the earth’ that even “avant la lettre”, its subjects focus on the practice and reduction of socioeconomic inequality rather than on the construction of a disciplinary ontos that will be accommodated to the capital system (Freire, 1983; Boff, 2004). This system, which naturally produces inequality in production, consumption and alienation (Santos, 1970). The alienation of all, and especially of the most exploited socioeconomic classes in their workforce, widens inequality in the use of primary resources (e.g. water), and expands the definition of socioeconomic superstructure (structuring of culture, institutions, political power, social role, rituals and the State, Marx, 2004) in the unequal supply of resources without questions by the socioeconomic classes.

The alienation of individuals by the commodification of the relation to nature (false consciousness as ideology, Lukacs, 1960), would make them conform to the crisis of water supply (rationing) and its unequal distribution? Would those who are deprived of water be conformed because they did not have the money to own the resource? Here the link between politics and economy for deprivation of the resource is ‘legal’ and ‘just’ (Lukacs, 1960; Agamben, 1995). The crisis in water supply is a relevant scenario to be studied, because in this scenario it is possible to observe possible imbalances in the distribution of this resource in relation to the different socioeconomically segregated spaces (Santana, 2016; 2017). Would there be a false democracy in water supply,

and in times of crisis would the value of the natural resource for selectivity in use increase? (New oppression and false bourgeois democracy, Lukacs, 1960).

Therefore, the objectives of this study were: i) to analyze water consumption; ii) to assess the environmental awareness of water consumption; and iii) to discuss the class consciousness regarding water supply between socioeconomic classes in the municipality of Recife, State of Pernambuco.

## 2. Method

The study was carried out in the municipality of Recife (8°02'S and 34°52'W – Figure 1), State of Pernambuco, Brazil, which occupies an area of 218,435 km<sup>2</sup>, with an estimated population of 1,625,583 inhabitants, and distributed in 499,183 domiciles (Ibge, 2023). The volume of water that supplies this municipality comes from the Pirapama Dam, with a maximum capacity of approximately 61 106 m<sup>3</sup>.

Households, as a sampling unit, were analyzed in this work in a census form (Ibge, 2013), in which they were divided into three sample groups defined by socioeconomic classes with minimum wage bands (Ibge, 2023): Upper Class, in which the residents of the household in their total received more than ten minimum wages, Middle Class, between four and ten minimum wages, and Lower Class below four minimum wages (Minimum Wage: 2019 = R\$ 998.00, 2020 = R\$ 1,095.00, 2021 = R\$ 1,100.00, 2022 = R\$ 1,212.00), adjusted for the years analyzed (Kamakura & Mazzon, 2016; Losurdo, 2016).

In order to determine the socioeconomic inequality and to compare the areas (neighborhoods), the Gini coefficient of household income per capita (Gini, 1921) was calculated using the model:

$$G = 1 - \sum_{k=0}^{k=n-1} (X_{k+1} - X_k)(Y_{k+1} - Y_k) \quad (1)$$

where: G = Gini coefficient; X = cumulative proportion of the variable “population”; and Y = cumulative proportion of the variable “income”. The Gini coefficient consists of a value between 0 and 1, where 0 corresponds to the complete equality (in the case of income, for example, the whole population receives the same salary) and 1 corresponds to the complete inequality (in which one person receives all income and the rest receive nothing).

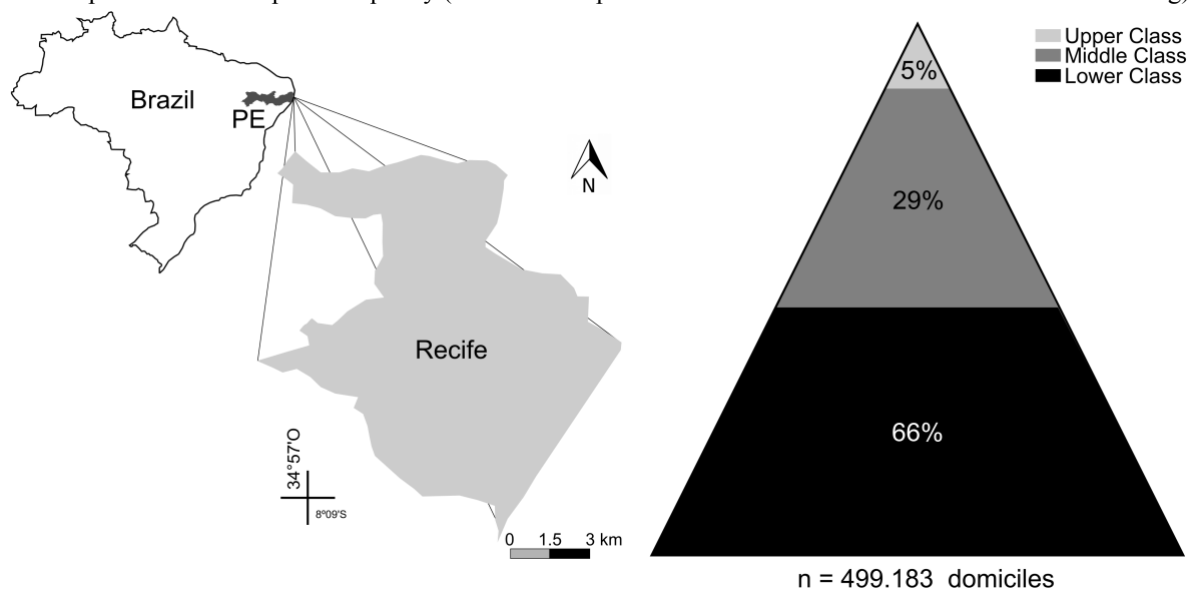


Figure 1: Distribution of socioeconomic classes per number of households in the municipality studied: Recife, State of Pernambuco.

Source: The author

From the household socioeconomic classification considered for this study, the variables collected were: i) per capita consumption of water (L day<sup>-1</sup>) and price paid for water consumed (R\$ · 10,000 L<sup>-1</sup>), evaluated by the data



in the water accounts of domiciles sampled; ii) monthly income per property (R\$ · month<sup>-1</sup>) and % schooling of residents over 25 years old per questionnaire; iii) HDI - human development index of the neighborhood in which the domicile is located (Undp, 2023); and iv) price (R\$) per m<sup>2</sup>, based on data from the real estate market for purchase and sale transactions (Vila Real, 2016) in the period studied. All variables mentioned in this study were collected over a period of three years between October 2019 and September 2022.

In the sampled households, we examined the level of knowledge about twenty-two themes and thematic axes addressed by the Brazilian Environmental Education, required for the formation of an environmental awareness thought in a given space-time context (Pritchard, 1968), namely (Cnea, 2021): i) environmental education in schools; ii) biogeography and biodiversity; iii) causes and effects of climate change; iv) geoecology of landscapes and ecosystems; v) environmental education and health; vi) environmental education in communities; vii) public policies, programs and actions; viii) challenges and innovation in the urban environment; ix) recycling of consumer goods; x) environmental law and social responsibility; xi) solidarity and creative economy; xii) environmental impacts, risks and disasters; xiii) tourism and the environment; xiv) environmental education and management in protected areas; xv) agroecology, extractivism and soil conservation; xvi) productive systems in the green economy; xxvii) management of water resources; xviii) renewable energy sources; xix) ecopedagogy and environmental perception; xx) environmental education, ethno-culture and citizenship; xxi) food security and sovereignty; and xxii) waste treatment and sanitation.

The level of knowledge was determined by a structured questionnaire, closed in response, in Likert Scale, the weight of the answer ranged from 0 to 10, in which 0 indicates the interviewee considered to have no knowledge about the theme, even had never heard about, and 10, total knowledge, that is, the individual could talk about the theme, articulate with reality and create hypothesis about it (Santana, 2014; Santana & Petrova, 2016).

Other information was also collected, such as the total volume of water available in the Pirapama Dam (Apac, 2023), and the number of days per year in which there is water supply per household (Ana, 2023), above two hours within 24 hours. Possible correlation between variables was estimated by Pearson Correlation Coefficient ( $r$ ), and possible significant differences of data between socioeconomic classes were calculated by the  $\chi^2$  Non-Parametric Test (Zar, 2010).

### 3. Results

In Recife, the majority of households (329,461) were classified as residents of socioeconomic lower class, and in descending order, with residents of middle class (144,763) and upper class (24,959) (Figure 1). On the contrary, the number of residents per household was increasing from upper class ( $4 \pm 2$  residents) to middle class ( $5 \pm 3$  residents), to lower class ( $8 \pm 3$  residents) (Figure 2).

The variable per capita consumption of water in the households studied was directly correlated ( $r > 0.800$ ) with the HDI of the neighborhoods where the households were established, with the per capita income and the educational level of the residents (higher education). Upper class consume on average  $513 \pm 79$  L day<sup>-1</sup> of water, differently from middle class ( $135 \pm 51$  L day<sup>-1</sup>) and from lower class ( $71 \pm 19$  L day<sup>-1</sup>) (Figure 2).

Per capita income classified the distribution of households into socioeconomic classes. The distance between upper class (R\$ 27,000  $\pm$  15,000) and middle class (R\$ 3,300  $\pm$  1,100) and lower class (R\$ 850  $\pm$  250) was approximately 300% higher than the mean (Figure 2). And this directly interfered with where they live (HDI: Upper Class =  $0.90 \pm 0.10$ , Middle Class =  $0.65 \pm 0.30$ , and Lower Class =  $0.45 \pm 0.25$ ), and the schooling level (higher education) of adults older than 25 years of age (Upper Class = 78% on average, Middle Class = 21% on average, and Lower Class = 2% on average). The price of water paid by each class varied. The class that paid the most for water consumption per capita was middle (R\$ 11 · 10,000 L<sup>-1</sup>), followed by upper class (R\$ 8 · 10,000 L<sup>-1</sup>) and lower class (R\$ 8 · 10,000 L<sup>-1</sup>).

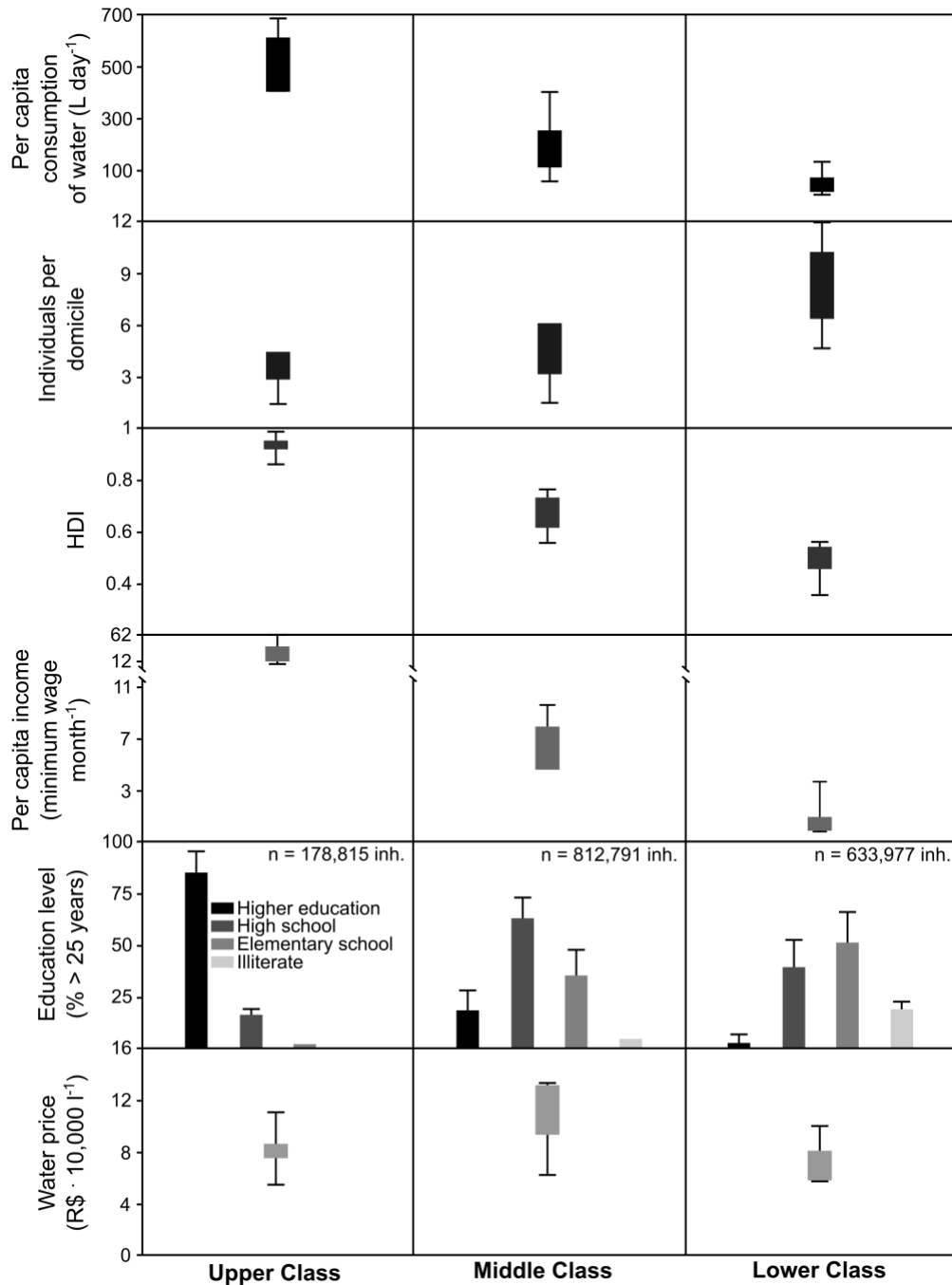


Figure 2: Results of the studied variables distributed into socioeconomic classes in Recife, State of Pernambuco.

Source: The author

When asked about the level of knowledge about twenty-two themes and thematic axes addressed by the Brazilian Environmental Education, the individuals of upper class were those who reported having more knowledge about environmental themes and knowledge (Figure 3), followed by middle class and lower class. In only three themes the middle-class individuals reported greater knowledge: solidarity and creative economy; renewable energy sources and environmental education, ethno-culture and citizenship.

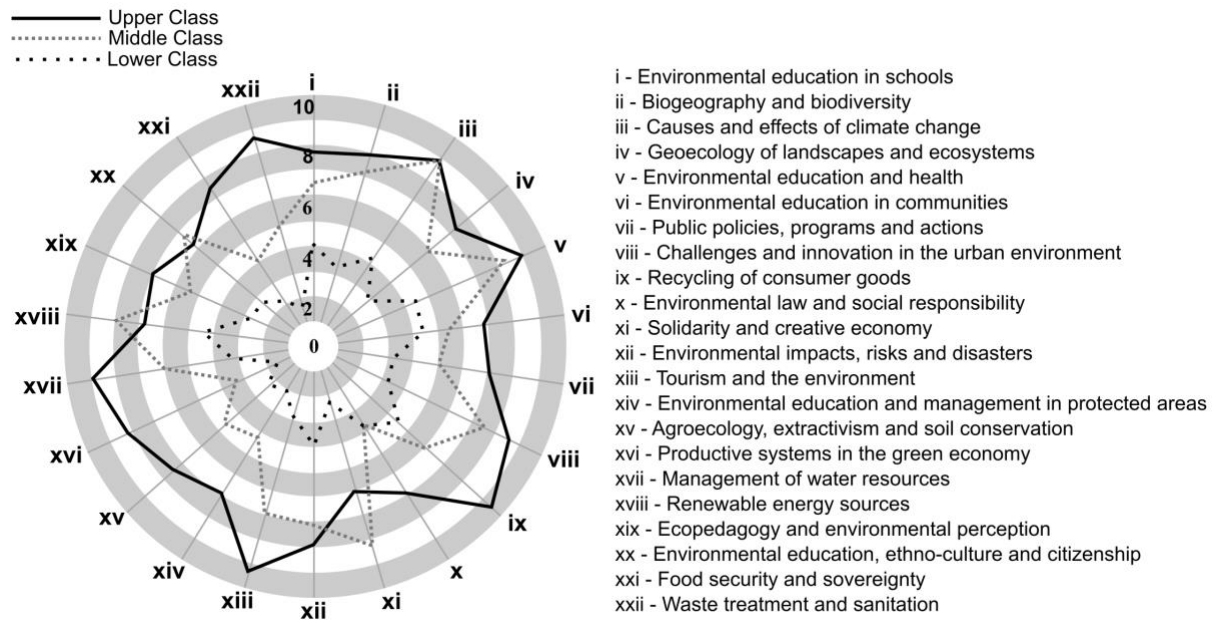


Figure 3: Likert Scale Response on the knowledge level about twenty-two themes addressed by the Environmental Education according to socioeconomic classes in Recife, State of Pernambuco. 0 = no knowledge and 10 = total knowledge.

Source: The author

The percentage of water consumed by the sampling groups defined by socioeconomic classes varies throughout the year. During the study period, 67% of the water was consumed in households of upper class, 21% by middle class, and 8% by lower class (Figure 4). In the period of greater availability of water in the year (July  $\approx 68 \cdot 10^6$  m<sup>3</sup>), there is an increase in proportional consumption by middle class (33%) and by lower class (12%), differently from periods with low availability of water in the dam (December 2006  $\approx 42 \cdot 10^6$  m<sup>3</sup>), when there is a reduction in proportional consumption by middle class (10%) and by lower class (6%). Also, throughout the year, there is a variation in the price of water supplied (from 3 to 14 R\$ · 10.000 l<sup>-1</sup>, on average). In the month with greater availability, the lower the price and vice-versa ( $r > 0.900$ , Figure 4). The frequency of water supply to households (days per year) was higher in households of upper class (360 days year<sup>-1</sup>, on average) than in households of middle class (293 days year<sup>-1</sup>, on average) and of lower class (119 days year<sup>-1</sup>, on average) (Figure 4).

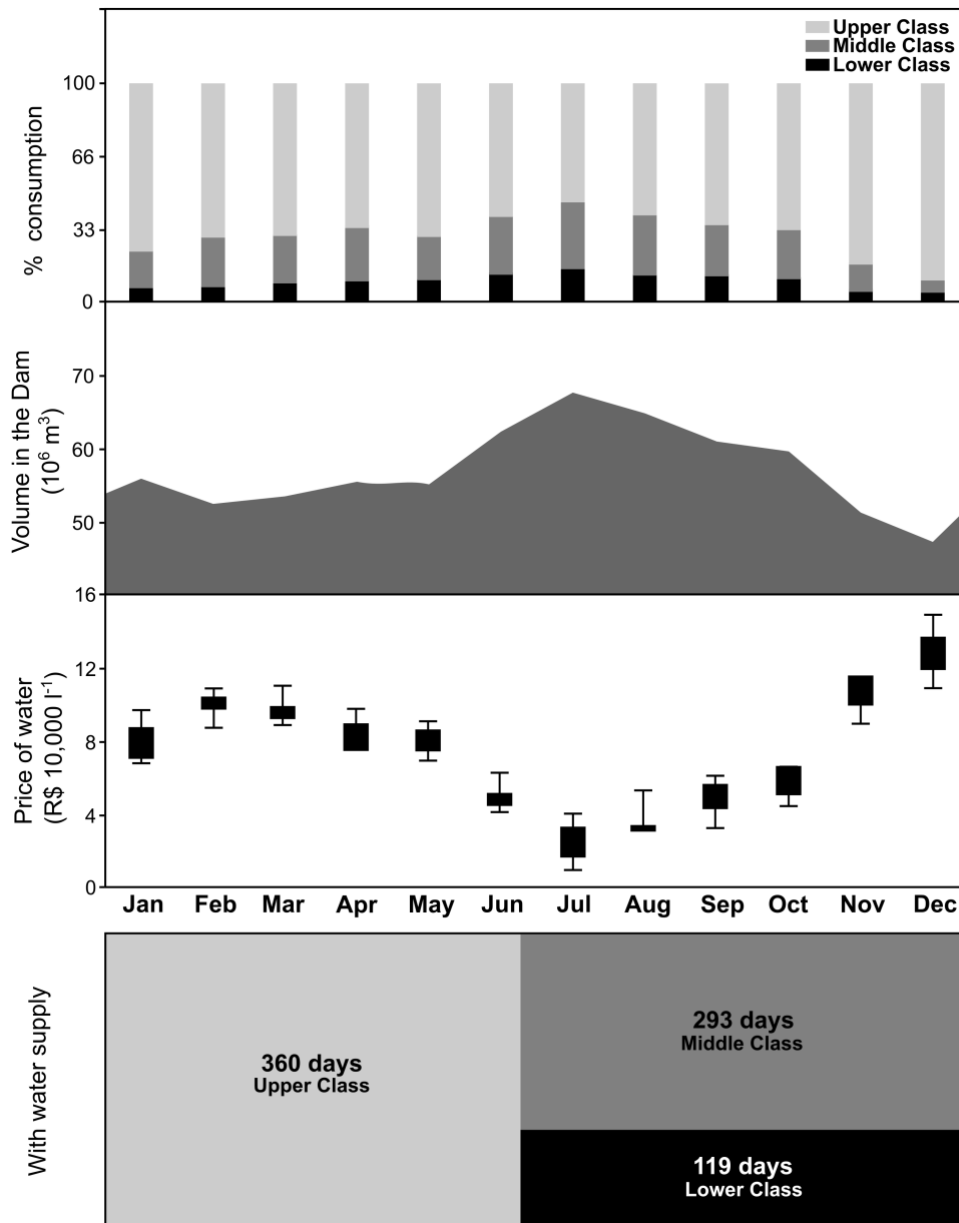


Figure 4: Percentage of per capita consumption according to socioeconomic class, volume of the Pirapama Dam, monthly water price paid by residents of households, and days with water supply, over the evaluated years: 10/2019 to 09/2022.

Source: The author

The urbanization of capital is spatially visible (Figure 5), and statistically significant ( $r > 0.935$ ), in the correlation of the variables property price, water supply days per year, and the predominance of socioeconomic class in the region.

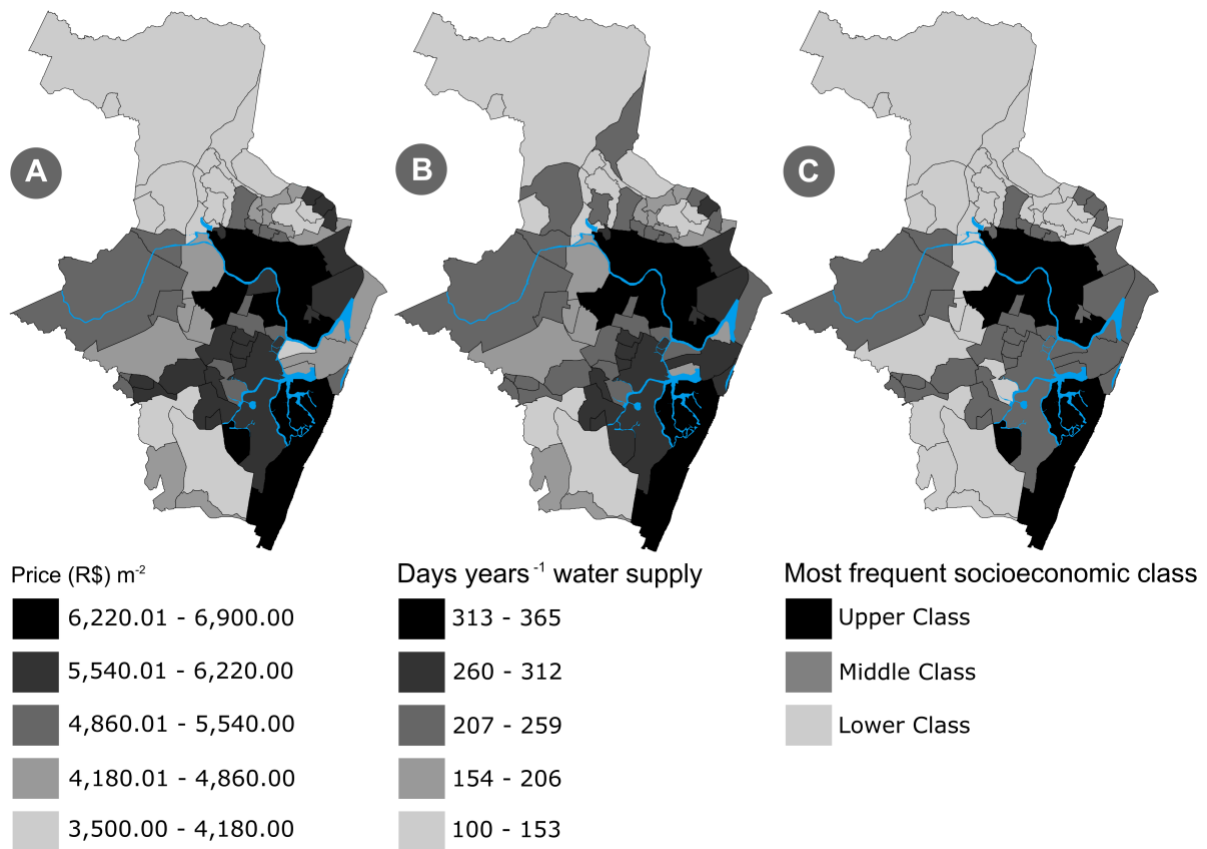


Figure 5: A) price per m<sup>2</sup> of real estate commercially purchased and sold; B) days per year of water supply to households (above two hours in 24 hours); C) socioeconomic class more frequent by neighborhood. Variation from October 2019 to September 2022, in Recife, State of Pernambuco.

Source: The author

#### 4. Discussion

Socioeconomic inequality is reflected in the inequality in the use of primary resources. As observed in the data, and presented in the literature, the income, and consequently the socioeconomic position, define the place in which the individuals will settle down (Hoekstra & Chapagain, 2007; Abubakar, 2016; Chenoweth et al., 2016; Hussien et al., 2016). This is a place where there is little relation to a region of good environmental and climatic factors, or to legally planned regions (e.g. break environmental laws and historical patrimony), but rather to regions of real estate speculation in which private companies and public policies converge for their relationships (Rolnik, 2015). In this convergence, the myth of the ideal place (advertising construction) is created, in which the infrastructure for water supply is promised in quantity and quality (public management), as well as all variables that make up the HDI, thus closing the cycle of valuation of m<sup>2</sup>, where the imputed value itself is a form of social segregation and definition of which socioeconomic profile will reside in these regions (Harvey, 1985).

Brazil is a socioeconomically unequal country (Gini coefficient 0.50, Ibge, 2023), but in Recife this inequality is still higher (Gini coefficient 0.71). This means that 71% of the income is concentrated in 5% of the population (Upper Classes). The value of the coefficient in Recife is higher than in municipalities of Botswana (0.61), Comoros (0.64), Haiti (0.61), Namibia (0.62) and South Africa (0.64) (World Bank, 2023).

Upper Class consumes more water and has the ownership of the resource (right), regardless of climatic limitations (Figure 4). Per capita consumption in these classes exceeds up to six times (> 660 L day<sup>-1</sup>) the value recommended by the UN: 110 L day<sup>-1</sup> (UN, 2016), unlike the lower class, with up to 5 L day<sup>-1</sup>. Negative extremes similar to the average observed in countries such as Nigeria (36 L day<sup>-1</sup>), Angola (15 L day<sup>-1</sup>), Cambodia (15 L day<sup>-1</sup>), Ethiopia (15 L day<sup>-1</sup>) and Mozambique (4 L day<sup>-1</sup>) (Data 360 2023).

The problem in Recife is not the amount of water available, unlike the countries mentioned above, such as Ethiopia (Arid Climate, rainfall below 550 mm), but its uneven distribution (see Figure 4). The right to water in households is observed by the number of days per year in which the supply is maintained (Figure 4). And this reinforces the hypothesis that there is an inequality in the supply and demand balance between households, established by their position in front of a privileged place (Rolnik, 2015; Hussien; Memon & Savic, 2016). Water shortages and inequality are politically constructed (Swyngedouw, 1995; 2003; 2005; 2015; Swyngedouw et al., 2002; Menga & Swyngedouw, 2018; Williams et al., 2019). Should those who consume more water (due to its availability) pay proportionately to their income for the quantitative and qualitative use of water, and be responsible for its preservation?

The right to water is also different between socioeconomic classes when the significant differences between classes ( $p > 0.050$ ) are detected in relation to the price paid for water (Figure 4). In addition, indirect taxation (consumption tax) ends up being more paid, and interferes more with purchasing power, in lower income classes (Melo & Campos, 2016). For example, two individuals, one of upper class (e.g. monthly income = R\$ 50,000) and another of lower class (e.g. monthly income = R\$ 900), who consume 110 L day<sup>-1</sup>, pay each month the same value. There would then be a false democracy in the use of the resource, in which a right (or a law) does not make justice (Lukacs, 1960; Agamben, 1995), considering water consumption? For example, in periods of water scarcity (lack of supply and climatic extremism) in neighborhoods of upper and middle classes, there is the acquisition of water through 'water trucks'. Each truck sells 10,000 liters of water for approximately R\$ 500 at the time without water rationing, and approximately R\$ 2,000 during rationing season (Santana, 2016). The value here highlights the segregation of use, the offer for a certain price (surplus value), and sometimes prices above the average price, and only those who can afford (indirect tax), and how much they can pay, will consume determined amount of resource, or will not consume.

The socioeconomic classes that most consume water are those with a higher education level and a greater environmental awareness (Figure 3), observed by the responses to the questions about the knowledge of environmental themes and the domain of environmental knowledge, and by having longer institutional contact with the theme of Environmental Education, in their education from elementary level (National Curriculum Parameters, Brasil, 2000) to higher education (National Education Plan 2014-2024, Brasil, 2014).

This awareness was not reflected in praxis. Environmental education thought by Pritchard (1968) was not a concept but an action (praxis), but in the intersection there ( $\approx 60$ s) until recently, this 'discipline' contributed and systematized knowledge and raised awareness in the human population: little practical, reflexive and engaged (Milfont & Sibley, 2012). By passing through socioeconomic classes, thinking about the finitude of primordial substances (Environmental Epistemology), listing variables and experiences (environmental practice), in which the environmental subject concomitantly becomes the object of the praxis and the research on it (Steil & Carvalho, 2014), will create this emancipated environmental subject (Environmental Ontology), educated by praxis and research (Freire, 1983; Boff, 2004), not by a conscience finished to be taught and publicized as an advertising piece (Environmental Marketing). In this fetishism of being a "green consumer" (Peattie & Crane, 2005), an individual "false consciousness" of being engaged in mitigating environmental impacts is created (critical to cultural training, Adorno, 1979). The green consumer is not a subject, but an object of the consumption system, which does not create 'guilt' or any ethical and moral imbalance (Gilg et al., 2005). The example of this is for a consumer to buy several industrialized products (e.g. canned and preserved) from several countries that do not have a desirable ethical conduct (e.g. environmental preservation, peace agreements, climate agreements, dictatorships, etc ...) and resort to using the 'plastic bag' in a supermarket, and leaving morally even (false awareness). Here, environmental education operates through the construction and denial of guilt (ideologization) (Lin, 2016).

Would the most consuming classes be willing to have the awareness to reduce their consumption and equalize them with the other classes? Would these classes be willing to equalize rights and duties? The answers to these questions could be the key to reducing and mitigating environmental impacts and adherence to a minimalist lifestyle (Georgescu-Roegen, 1979), equalized in the common right (access) and owed to all socioeconomic classes.

Taking class consciousness in relation to the water consumption (quantitative and qualitative), historically, by the classes that consume little ( $< 110 \text{ L day}^{-1}$ ), beyond the false democracy and the false awareness, one could think not only in an increase in consumption of lower class ( $= 110 \text{ L day}^{-1}$ ), but mainly in eradicating usury of consumption by the classes that commit this abuse. The way to equalization of socioeconomic classes for water consumption, if the more educated classes do not engage in environmental praxis and a minimalist lifestyle, is the per capita 'hourglass turning' of consumption (Brondizio & Le Tourneau, 2016), that is, rationing and price increase for those who have higher incomes, and, supply and reduction in price for those who have little water availability. This method of equalization causes a dialectic in the intellectual groups, but an aversion in the conservatives of the status quo (see Kehl, 2010).

The analyses developed above when read hastily seem to be a positivist line between variables (income  $>$  right  $>$  housing  $>$  consumption), but distances from a positivism when the contradictions between rights and duties between the social classes studied are concretely verified, in their experiences, in the sense that is given temporally, far from any biased translation (Lukacs, 1960). It is clear that there is no universal class spirit (Maar, 1992). There are among the most consuming classes, individuals who seek environmental praxis, and among less consuming classes, individuals who boast. What is emphasized is that with the urbanization of capital, the substantial conception of the subject of the class approaches more of a historical rather than an anthropological conception (Lukacs, 1960).

Thus, to form subjects in which their narratives represent their historical role with their class (consciousness itself), and from this, they can recognize in a non-alienating way (material and concrete) the construction of the reification of nature (here represented by water), their labor, the means of production, the desires and the means of consumption, from the logic of capital. From this, there is no procrastination of utopia (equality in right and duty), especially when it comes to primordial substances to life. Consciousness is not something outside, but the revelation of the immanent sense of the dialectical process that only occurs in the class (Lukacs, 1960). When observed the distribution of water between classes and their acceptance of it, it shows the acceptance of different rights and equal duties by the subjective nature of the masses, absorbed without resistance by social rationalization (Habermas, 1981).

## 5. Conclusion

Per capita water consumption is unequal between socioeconomic classes. Our results certified the reification of water as a product in which the purchasing power of individuals directly influences the right to its consumption. This income power establishes in which region individuals will settle down in the urban space, where public management is responsible for not lacking infrastructure and water supply in quantity and quality. Over the years analyzed, and when passing through dystrophisms (e.g. drought events), the socioeconomic classes with higher income continued to receive water in their homes, and when they did not, they acquired by other means (e.g. water truck), means that classes with lower purchasing power or cannot access or access at a lower volume.

Formation for environmental awareness does not prepare individuals for environmental praxis, and to discuss inequality of rights and justice for access to primary resources, but teaches them to respect equalities in duties (false democracy or false awareness). Class consciousness, by those least favored, should be the first step in environmental education for not only equalizing water consumption, but also eradicating the usury in its use by classes with higher purchasing power. The continuous reproduction of socioeconomic classes that have environmental awareness and do not have the environmental praxis shows that something is wrong since the formation of the subject that maintains the status quo, legislation that does not make social and environmental justice.

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# The Influence of Loan Deposit Ratio, Liquidity Reserve Requirement Ratio, Leverage, and Company Size on Window Dressing: Conventional Commercial Banks Listed on the Indonesia Stock Exchange for the Period 2018-2022

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## Abstract

This research aims to determine the effect of Loan Deposit Ratio (LDR), Liquidity Reserve Requirement Ratio (LRRR), Leverage, ROA, and Company Size on Window Dressing. The independent variables in this study are Loan Deposit Ratio (LDR), Liquidity Reserve Requirement Ratio (LRRR), Leverage, ROA, and Company Size. The dependent variable in this study is Window Dressing. This research uses secondary data obtained from annual financial statements and quarterly reports presented by companies through the IDX website. The population in this study consists of 46 conventional commercial banking companies listed on the Indonesia Stock Exchange for the period 2018-2022. The sample determination in this study uses purposive sampling based on specific criteria, resulting in a sample of 40 conventional commercial banking companies. Data analysis techniques are conducted using panel data regression. The independent variables in this study are Loan Deposit Ratio (LDR), Liquidity Reserve Requirement Ratio (LRRR), Leverage, Company Size, and ROA. The results of this study indicate that company size has an effect on Window Dressing. Meanwhile, Loan Deposit Ratio (LDR), Liquidity Reserve Requirement Ratio (LRRR), Leverage, and ROA do not have an effect on Window Dressing.

**Keywords:** Loan Deposit Ratio (LDR), Liquidity Reserve Requirement Ratio (LRRR), Leverage, ROA, Company Size, Window Dressing

## 1. Introduction

As time progresses, every company is required to be able to compete with other companies. This competition demands that each company possesses innovations and strategies and develops them so that the company can maintain the continuity of its business (Yori et al., 2022). The banking sector is no different, striving to present good financial reports at the end of the year to attract investors. One of the strategies employed is window dressing.

Window dressing is a method used by management when a company is experiencing financial difficulties (Wiratmaja, 2017).

Window dressing is manifested by stock prices on the exchange tending to rise at the end of the year, particularly in December, with the effects of window dressing marked by a rise in several stocks with an increase of 5-10% in just one trading day. With the phenomenon of window dressing, investors can gain short-term investment profits (Debataraja & Sunarya, 2023). The practice of banking window dressing is a temporary phenomenon; one of the techniques is to increase the balance of customer deposits in the fourth quarter of the ongoing period (upward window dressing) and decrease the balance of customer deposits in the first quarter of the following period (downward window dressing) (Geraldina et al., 2015). The Loan Deposit Ratio (LDR) serves as a measure aimed at determining how much a bank can recycle the sources of funds invested by customers as a form of the bank's obligation (Agustina & Wijaya, 2013). The LDR has been shown to have a significant effect on the upward window dressing of customer deposits, and the same applies to downward window dressing (Geraldina et al., 2015). However, the LDR has been found to have no effect and is not significant in relation to banking window dressing (Livera et al., 2020).

The Liquidity Reserve Requirement Ratio (LRRR) is the minimum requirement for the allocation of third-party funds that banks must hold to meet banking liquidity requirements, and the LRRR variable has been found to have no effect and is not significant in relation to banking window dressing (Livera et al., 2020). Additionally, the LRRR has a negative impact on both upward window dressing and downward window dressing (Geraldina et al., 2015).

Leverage is a tool to assess how a company can manage long-term or short-term debt to finance its assets. This leverage comes from external funding through long-term debt. Long-term interest expenses will reduce the tax burden for the company (Kurniasih, T., & Sari, 2013).

Return on Assets (ROA) is one of the indicators used to determine a company's profitability. ROA is used to measure the efficiency and effectiveness of a company in generating profits by leveraging the assets it possesses. The higher the ROA of a bank, the greater the profit level achieved, and the better the bank's position regarding asset utilization.

Company size is another factor that can influence a company's profit. The larger the company, the more strategies it is likely to employ to sustain its business, one of which is to achieve high profits supported by substantial assets, thereby addressing the company's challenges.

The increasing practice of window dressing in the banking industry is something that needs attention. Therefore, the author has chosen the title "The Influence of Loan Deposit Ratio, Liquidity Reserve Requirement Ratio, Leverage, and Company Size on Indications of Window Dressing (Conventional General Banking Companies Listed on the Indonesia Stock Exchange for the Period 2018-2022)."

## **2. Method**

The population in this study consists of 46 (forty-six) companies. The author obtained 40 (forty) suitable samples. The sampling method used in this research is purposive sampling. The data source used in this study is secondary data. Secondary data was obtained from the financial statements of conventional commercial banks listed on the Indonesia Stock Exchange for the period 2018 – 2022. The data used in this study is cross-sectional and time series data. Therefore, the data analysis technique employed in this research is panel data regression analysis.

### 3. Result

Table 1: Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.89E+14	2.53E+14	-1.535010	0.1268
LDR	-4.67E+13	1.60E+13	-2.912841	0.0041
LRRR	5.07E+12	9.72E+12	0.521646	0.6027
Leverage	-4.92E+12	6.66E+12	-0.739282	0.4609
Size	1.78E+13	8.16E+12	2.188300	0.0301
ROA	1.43E+14	2.02E+14	0.708018	0.4800

Effects Specification			
Cross-section fixed (dummy variables)			
R-squared	0.971813	Mean dependent var	1.26E+14
Adjusted R-squared	0.963811	S.D. dependent var	2.52E+14
S.E. of regression	4.80E+13	Akaike info criterion	66.03745
Sum squared resid	3.57E+29	Schwarz criterion	66.77957
Log likelihood	-6558.745	Hannan-Quinn criter.	66.33778
F-statistic	121.4523	Durbin-Watson stat	0.677930
Prob(F-statistic)	0.000000		

The results of the hypothesis testing in the above research can be described as follows:

1. The significance value of the Loan Deposit Ratio (LDR) variable above is  $0.0041 < 0.05$ . Therefore, it can be concluded that the Loan Deposit Ratio (LDR) has a significant effect on Window Dressing.
2. The significance value of the Liquidity Reserve Requirement Ratio (LRRR) variable above is  $0.6027 > 0.05$ . Therefore, it can be concluded that the Liquidity Reserve Requirement Ratio (LRRR) does not have a significant effect on Window Dressing.
3. The significance value of the Leverage variable above is  $0.4609 > 0.05$ . Therefore, it can be concluded that Leverage does not have a significant effect on Window Dressing.
4. The significance value of the Company Size variable above is  $0.0301 < 0.05$ . Therefore, it can be concluded that Company Size has a significant effect on Window Dressing.
5. The significance value of the Return on Assets (ROA) variable above is  $0.4800 > 0.05$ . Therefore, it can be concluded that the Return on Assets (ROA) variable has a significant effect on Window Dressing.
6. The calculated F-value is 121.4523 with a significance level of 0.0000. Meanwhile, the table F-value at a significance level of 0.05 with numerator degrees of freedom of 3 ( $k-1 = 4-1$ ) and denominator degrees of freedom of 196 ( $n-k = 200-4$ ) is found to be 2.65. Therefore, the calculated F-value  $>$  table F-value ( $121.4523 < 2.65$ ). The conclusion reached is that the variables Loan Deposit Ratio, Liquidity Reserve Requirement Ratio, Leverage, Company Size, and Return on Assets collectively (simultaneously) have an effect on the variable Window Dressing.
7. The Adjusted R Square value is 0.9638 or 96.38%. Therefore, the variables studied by the author provide almost all the information needed to predict the variation in the dependent variable Window Dressing by 96.38%, while the remaining 3.62% is influenced or explained by other variables outside this study.

### 4. Discussion

The research results indicate that the Loan Deposit Ratio does not have a partial effect on window dressing. This is because, according to Bank Indonesia Regulation (PBI), the safe limit for the Loan Deposit Ratio (LDR) in measuring a bank's health is regulated in the provisions of Bank Indonesia Regulation Number 17/8/PBI/2015 concerning Monetary Regulation and Supervision, which sets the minimum Loan Deposit Ratio (LDR) at 78%, while the maximum Loan Deposit Ratio (LDR) is set at 92%. This can limit some companies in distributing their loans.

The research results show that the Liquidity Reserve Requirement Ratio does not have a partial effect on window dressing. This is because the Liquidity Reserve Requirement Ratio (LRRR) must maintain third-party deposits. Based on Bank Indonesia Regulation Number 15/7/PBI/2013 regarding the Second Amendment to Bank Indonesia Regulation Number 12/19/PBI/2010 concerning the Minimum Mandatory Reserves of Commercial Banks at Bank Indonesia in Rupiah and Foreign Currency, 2013, the Minimum Mandatory Reserve (GWM) is the minimum amount that banks must maintain, set by Bank Indonesia at a certain percentage of Third-Party Funds (DPK).

The research results indicate that Leverage does not have a partial effect on window dressing. This is because Leverage is used as borrowed funds to enhance the potential return on investment. Leverage involves financing through debt to purchase assets or fund operations with the hope of generating profits greater than the cost of borrowing. Thus, leverage and window dressing are not related since they have different objectives. Leverage is used for long-term investment strategies by leveraging debt for growth and increased returns, while window dressing is used to enhance short-term financial statements.

The research results indicate that Company Size has a partial effect on window dressing. This is because Company Size can be assessed by the total assets owned by the company. With more assets owned by a company, its financial stability increases, thus reducing the likelihood of bankruptcy.

Based on the hypothesis testing results, the regression coefficient for the Return on Assets (ROA) variable ( $X_2$ ) is 0.078, meaning that if other independent variables remain constant and Return on Assets (ROA) increases by one percent, then Window Dressing ( $Y$ ) will increase by 0.078. According to the results of the partial hypothesis testing using the t-test, the significance value of the Return on Assets (ROA) variable is greater than the significance level, namely ( $0.887 > 0.05$ ). Therefore, in this case,  $H_2$  is rejected, indicating that the Return on Assets (ROA) variable has a positive but not significant effect on Window Dressing.

The findings of this study do not align with the research conducted by Owen and Wu (2011), which states that management compensation sensitivity to ROA and ROE is more likely to engage in window dressing from short-term loans. However, this study shows the same positive value as previous researchers; unfortunately, it cannot demonstrate an effect on window dressing practices in banking companies in Indonesia.

This discrepancy occurs because, first, the previous researchers were from abroad, so banking policies and regulations will be adjusted according to the position of the bank. Second, because bank management in Indonesia faces the challenge of maintaining sufficient cash reserves to meet every withdrawal by depositors, while that cash does not generate income, and interest costs must still be paid (Darmawi, 2018; 66).

Moreover, the reason behind the positive value of Return on Assets (ROA) is due to one of the marketing tricks often employed by banks towards the end of the year, which typically involves offering promotions and discounts on financial service products. According to Roychowdhury (2006), some profit manipulations can include price discounts, selling products with low-interest credit, flexible credit terms, production exceeding market demand, and reductions in discretionary costs made by companies to meet profit targets.

Based on the research results above, the coefficient between Return on Assets and Window Dressing practices is positive and not significant, with a value of  $0.887 > 0.05$ . Thus, it can be concluded that Return on Assets does not influence Window Dressing practices.

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# Needs and Guidelines for Developing Innovative Thinking Skills of Private School Administrators in Samutprakan Province

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## Abstract

This research aimed to: 1) study the current state, the desired state, and the necessary needs for developing innovative thinking skills of private school administrators in Samut Prakan Province 2) propose a guideline for developing innovative thinking skills of private school administrators in Samut Prakan Province. The sample group consisted of 96 school administrators, selected through purposive sampling, and 345 teachers, totaling 441 participants, selected through simple random sampling. The research instrument was a questionnaire with an overall reliability of .954. Data were analyzed using basic statistics such as percentage, mean, standard deviation, Cronbach's Alpha reliability coefficient, and the Modified Priority Needs Index (PNI modified) to rank the needs. An interview guide was also used to gather insights into developing innovative thinking skills. Data analysis involved frequency statistics and content analysis. The research results showed that: 1) The current state of innovative thinking skills of private school administrators in Samut Prakan Province was overall at a high level. When considering individual aspects, the highest average was in creative thinking, while the lowest was in linking to new knowledge. 2) The desired state of innovative thinking skills was overall at a high level, with the highest average in experimentation and the lowest in observation. 3) The ranking of necessary needs indicated that linking to new knowledge ranked first, followed by experimentation and observation, respectively. 4) Appropriate approaches to develop innovative thinking skills of private school administrators. Samut Prakan Province consists of linking to new knowledge organizing training and seminars, developing systematic thinking skills, practicing using digital tools, promoting the use of research processes, enhancing linking skills, and establishing monitoring and evaluation systems. observation conduct SWOT analysis, build cooperation networks, create risk management plans, develop data collection and analysis systems, organize training, hold monthly meetings, promote the use of research processes, and train systematic thinking skills. experimentation: Promote research activities, improve communication skills, provide training, and develop innovations. creative thinking: Organize training and seminars, promote the use of research processes, encourage the use of technology, support innovation management, and build networks. creative questioning: Provide training and seminars, create conducive environments, practice questioning skills, coach on techniques, and promote idea exchange.

**Keywords:** Need Assessment, Development Guidelines, Innovative Thinking Skills

## 1. Introduction

In the 21<sup>st</sup> century, the era of the knowledge-based economy, knowledge has become a core driver of economic growth and value creation within organizations. The world is shifting from resource-based development to innovation, which requires intelligence to improve and solve problems. Organizations that can leverage knowledge

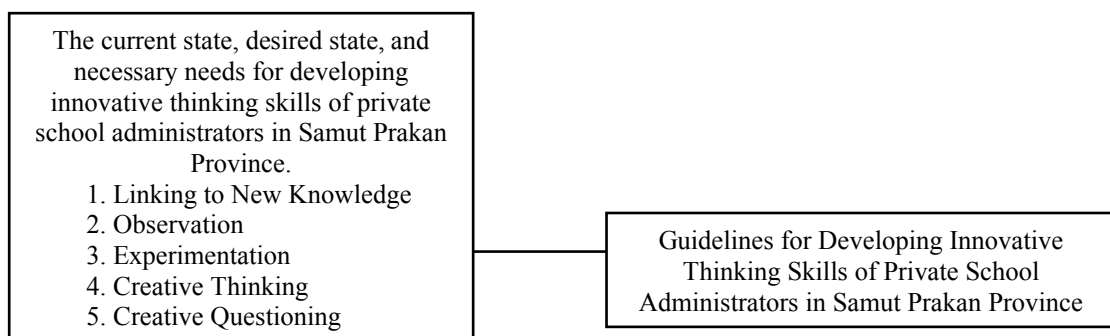
as a primary factor in production and competition will gain sustainable advantages in an era where production factors are intangible. Innovation development is, therefore, a crucial approach that strengthens organizations and enhances their competitive performance, especially in the age of globalization. Public administration, including educational management, requires professional executives and personnel to ensure smooth operations and the achievement of set goals. The success of educational management depends on having capable and expert personnel in their respective fields. (Anupong Chumwangwapi, 2018).

The global society is rapidly advancing in an era of change and innovation, particularly in the economic sector, which has shifted from resource-based production to knowledge and innovation-driven production and competition. This aligns with the principles of the 20-Year National Strategic Plan and the National Education Plan (2017-2036), which emphasize the development of creative thinking and innovation skills as key components of national education. This is a suitable path for managing the country's education system, especially in developing the innovative thinking skills of school administrators, who play a crucial role in the nation's educational development. (National Education Plan 2017-2036, 2017).

Improving the quality of education in educational institutions requires leaders or administrators to play a crucial role in promoting and utilizing innovations to develop organizations effectively. They must possess innovative thinking skills that enable them to generate new ideas or improve existing concepts to meet the needs of the organization appropriately. Therefore, equipping students and personnel with innovative thinking skills is essential, as educational management requires strong collaboration from all parties to achieve positive outcomes in knowledge management and transform educational institutions into "innovation organizations." The result of this endeavor is the development of students' quality as innovative products that add value to the educational organization as a whole. (Sukanya Chaemchoi, 2012).

Based on the aforementioned context and significance, the researcher aims to study the needs and guidelines for developing innovative thinking skills among private school administrators in Samut Prakan Province. These skills are essential for effective leadership within organizations, as they stimulate creativity and inspire personnel to align their efforts with the organization's vision. Additionally, fostering these skills benefits the organization by strategically determining its direction in an innovative way, thereby gaining competitive advantages and enhancing the quality of outputs. The ability to solve problems creatively and strategically, along with cultivating an innovative organizational culture, is crucial. This research will provide valuable insights for developing the innovative thinking skills of private school administrators in Samut Prakan Province, ultimately leading to more effective and productive operations.

## 2. Research Paradigm



## 3. Research Questions

1. What are the current state, desired state, and necessary needs for developing innovative thinking skills of private school administrators in Samut Prakan Province?
2. What are the guidelines for developing innovative thinking skills of private school administrators in Samut Prakan Province?

#### 4. Research objectives

1. To study the current state, desired state, and necessary needs for developing innovative thinking skills among private school administrators in Samut Prakan Province.
2. To propose guidelines for developing innovative thinking skills among private school administrators in Samut Prakan Province.

#### 5. Research methodology

In this study, the researcher focuses on examining the needs and guidelines for developing innovative thinking skills among private school administrators in Samut Prakan Province. The research employs a mixed methods design and collects relevant data using questionnaires.

##### 5.1. Population Scope

The population includes administrators and teachers in private schools in Samut Prakan Province, totaling 96 schools with a population of 3,447 individuals. The sample size is determined as follows: 96 school administrators are selected through purposive sampling, and 345 teachers are chosen based on Krejcie and Morgan's (1970) table of sample sizes, with a simple random sampling method applied. The total sample size is 441 individuals.

##### 5.2. Content Scope on Innovative Thinking Skills

The researcher reviews and synthesizes academic documents and research related to innovative thinking skills from both domestic and international sources, including works by Archan Prachant and Sukanya Chaemchoi (2018), Amornrat Sripo (2018), Anusorn Nampradit (2019), Channarong Wisetsat (2019), Kamnan Baipakdee (2020), Pawinee Jittsohpa (2021), Nutkrae Kiatikarn (2021), Natthaporn Thaem-yim (2021), Sirikamon Mongkolyos (2022), Piyapan Kanrai (2022), Rungnarong Duangdi-kaew (2022), Jeff Dyer (2011), Dyer and Gregersen (2011), Ness (2011), Swallow (2012), Johnston & Bate (2013), and Horth & Buchner (2014). The criteria for synthesizing research include sources with a frequency level of 7 or more (40% or above), identifying five components of innovative thinking skills for administrators 1) Linking to new knowledge 2) Observation 3) Experimentation skills 4) Creative thinking and 5) Creative questioning

#### 6. Research instrument

##### 6.1. Set 1: Research instrument: Questionnaire

Part 1: General Information of Respondents This section includes information on position status, gender, age, school size, educational level, and work experience. It is in the form of a checklist.

Part 2: Current State and Desired State for Developing Innovative Thinking Skills This section assesses the current state and desired state of innovative thinking skills among private school administrators in Samut Prakan Province. It uses a 5-point rating scale.

Part 3: Additional Suggestions for Developing Innovative Thinking Skills This section collects additional suggestions for enhancing the innovative thinking skills of private school administrators in Samut Prakan Province.

##### 6.2. Set 2: Interview Questionnaire: Guidelines for Developing Innovative Thinking Skills of Private School Administrators in Samut Prakan Province

Part 1: General Information of Interviewees This section includes details such as name, position, interview date, and interview location.

Part 2: Expert Opinions This section gathers expert opinions on the guidelines for developing innovative thinking skills among private school administrators in Samut Prakan Province.

## 7. Making and testing the instrument

1. Review Literature and Research Study relevant documents, concepts, theories, and research related to the development of innovative thinking skills to define the issues for question creation.
2. Create Questionnaire Develop a questionnaire to assess the current state, desired state, and needs for developing innovative thinking skills among private school administrators in Samut Prakan Province.
3. Consult Advisor Submit the developed questionnaire to the advisor for review of language accuracy and content coverage.
4. Expert Review Present the revised questionnaire to 5 experts for content validity and calculate the Index of Item Objective Congruence (IOC). Items with IOC values of 0.50 or higher were accepted, with final IOC values ranging from 0.60 to 1.00 across all 5 areas. Revise the questionnaire based on expert feedback and resubmit it to the advisor for final verification.
5. Pilot Testing Test the revised questionnaire with a sample of 30 individuals similar to the target population but not part of the sample group.
6. The questionnaire was used to determine the item discrimination power by calculating the Pearson correlation coefficient between the scores of individual items and the total score (Item–Total Correlation). The Pearson correlation coefficient was used to assess the relationship between individual item scores and the total score (Item Total Correlation). To check reliability, the researcher calculated the reliability of the entire questionnaire using Cronbach's  $\alpha$  (Alpha) Coefficient, focusing on items with adequate discrimination power according to the established criteria.

## 8. Data analysis

The analysis results are presented procedurally as per the following details:

Part 1 presents the results of the analysis of the current state, desired state, and necessary needs for developing innovative thinking skills among private school administrators in Samut Prakan Province. The population consists of administrators and teachers in private schools in Samut Prakan Province, with a sample size of 441 people. The analysis includes calculating the mean, standard deviation, and levels of the current state, desired state, and the needs analysis for developing innovative thinking skills among private school administrators in Samut Prakan Province. The needs analysis was conducted using the Modified Priority Needs Index (PNI modified) to prioritize various aspects for designing the development of innovative thinking skills among private school administrators in Samut Prakan Province.

Table 1: Results of the analysis of the current state, desired state, and the prioritization of needs for the development of innovative thinking skills among private school administrators in Samut Prakan Province, overall.

Innovative thinking skills	Current status			Desirable status			PNI	Priority needs
	$\bar{x}$	S.D.	Interpret results	$\bar{x}$	S.D.	Interpret results		
1. Connecting to New Knowledge	3.81	0.60	High	4.26	0.69	High	0.118	1
2. Observation	3.82	0.65	High	4.23	0.70	High	0.107	3
3. Experimentation	3.90	0.78	High	4.34	0.71	High	0.112	2
4. Creative Thinking	3.92	0.72	High	4.30	0.69	High	0.096	5
5. Creative Questioning	3.90	0.66	High	4.31	0.72	High	0.105	4
<b>Total</b>	<b>3.87</b>	<b>0.68</b>	<b>High</b>	<b>4.29</b>	<b>0.70</b>	<b>High</b>	<b>0.108</b>	

Table 1 shows that the current state of innovative thinking skills among private school administrators in Samut Prakan Province is generally at a high level ( $\bar{x}$ = 3.87, S.D. = 0.68). When considering each aspect, the highest mean is in the area of Creative Thinking ( $\bar{x}$  = 3.92, S.D. = 0.72), followed by Experimentation ( $\bar{x}$ = 3.90, S.D.= 0.78), and the lowest mean is in Connecting to New Knowledge ( $\bar{x}$  = 3.81, S.D. = 0.60).

The desired state of innovative thinking skills among private school administrators in Samut Prakan Province is generally at a high level ( $\bar{x}$  = 4.29, S.D. = 0.70). The highest mean is in the area of Experimentation ( $\bar{x}$  = 4.34, S.D. = 0.71), followed by Creative Questioning ( $\bar{x}$  = 4.31, S.D. = 0.72), and the lowest mean is in Observation ( $\bar{x}$  = 4.23, S.D. = 0.70).

The analysis of needs indicates that Connecting to New Knowledge has the highest priority index (0.118), followed by Experimentation (0.112), and Creative Thinking (0.096).

In summary, there is a need to develop innovative thinking skills among private school administrators. Samut Prakan Province In each area with the top 2 highest needs, the researcher summarized them as follows:

#### 1. Innovative Thinking Skills Include:

1.1 Linkage to New Knowledge: It is essential for administrators to integrate knowledge from diverse disciplines to find answers by connecting existing knowledge with new knowledge. They should be able to analyze data from various sources, both existing and new, to make informed decisions and solve problems effectively.

1.2 Observation Skills: Administrators need to assess risks and analyze potential impacts on school management effectively. They should be able to analyze the environment systematically to make efficient managerial decisions.

1.3 Experimentation Skills: Administrators should engage in hands-on practice to test innovations and investigate uncertain facts. They should also develop systematic plans and methods for creating innovations.

1.4 Creative Thinking Skills: Administrators need to be capable of creating innovative ideas that are distinct, valuable, and beneficial to the institution. They should demonstrate flexible thinking, think outside the box, and generate new and unique ideas.

1.5 Creative Questioning Skills: Administrators should have the ability to pose questions that build trust and confidence among staff. They should use questioning techniques that promote analytical thinking and facilitate the search for answers.

#### Part 2 Studying Approaches to Developing Innovative Thinking Skills Among Private School Administrators in Samut Prakan Province.

The researcher used the results of the Modified Priority Needs Index (PNI modified) to rank the needs from highest to lowest and selected the top two areas with the highest needs for each aspect. These areas are: 1) Linking skills to new knowledge, 2) Experimentation skills, 3) Observation skills, 4) Creative questioning skills, and 5) Creative thinking skills. From the above information, the researcher has used all 5 aspects of information to create It's an interview. Arranged in order of needs and necessities.

### 9. Conclusion

1. Results of the analysis of the current state, desired state, and the priority index of needs for developing innovative thinking skills among private school administrators in Samut Prakan Province are as follows:

The current state of innovative thinking skills among private school administrators in Samut Prakan Province is generally at a high level. When considering each aspect, the highest mean is in Creative Thinking, followed by Experimentation, and the lowest mean is in Connecting to New Knowledge.

The desired state of innovative thinking skills among private school administrators in Samut Prakan Province is generally at a high level. When considering each aspect, the highest mean is in Experimentation, followed by Creative Questioning, and the lowest mean is in Observation.

The priority index of needs shows that Connecting to New Knowledge has the highest priority index, followed by Experimentation. The aspect with the lowest priority is Creative Thinking.

2. Study the guidelines for developing innovative thinking skills of private school administrators in Samut Prakan Province. The researcher used the results of the study on the necessity index to develop an

interview form, ranking the necessity from highest to lowest as follows: 1) Linking to new knowledge, 2) Experimentation, 3) Observation, 4) Creative questioning, and 5) Creative thinking. Based on this information, the researcher created an interview form based on these five areas, ordered by the level of necessity, to develop guidelines for enhancing innovative thinking skills among private school administrators in Samut Prakan Province. The target group for this interview included one policy-level education manager in Samut Prakan Province, two higher education lecturers, two educational supervisors, and two private school directors, totaling seven informants. The purposive sampling method was used, and the findings were summarized into guidelines for developing innovative thinking skills for private school administrators in Samut Prakan Province.

3. **Linking to New Knowledge:** The administrators are able to integrate knowledge from different fields to find answers by connecting existing knowledge with new knowledge. Based on the interview results about developing innovative thinking skills of administrators in the area of linking to new knowledge, it was suggested that training and seminars should include activities that integrate knowledge from various disciplines, develop systems thinking skills, practice using digital tools to create mind maps, and manage data using research processes.
4. **Linking to New Knowledge:** Administrators can analyze knowledge from various sources, both existing and new, to make decisions and solve problems. The interviews suggested that skills in linking knowledge from multiple sources should be practiced, research processes should be promoted for developing innovations that meet school needs, technology and data analysis software should be used, and systems for monitoring and evaluating should be established to improve future processes efficiently.
5. **Observation:** Administrators can assess risks and analyze potential impacts on school management effectively. The interviews suggested that SWOT analysis should be used to create risk management plans, networks with parents, communities, and academic networks should be built, data collection and analysis systems should be established to evaluate situations and risks, and training in data analysis and risk assessment should be provided. Additionally, technology and data analysis tools should be utilized, and meetings should be held to discuss situations, risks, and changes in the education system.
6. **Observation:** Administrators can systematically analyze the environment to make effective managerial decisions. The interviews suggested that system analysis using SWOT models should be promoted, research processes should be used for designing work and innovations, systems and creative thinking should be practiced, openness to problems and obstacles should be encouraged, and training in data analysis and monitoring social, economic, and political changes should be provided.
7. **Experimentation:** Administrators engage in practical activities to test innovations in investigating doubtful facts. The interviews suggested that training in preliminary research processes should be provided, skills in communication and sharing visions with teachers and teams should be developed, and management training programs should be organized to increase confidence in developing innovations.
8. **Experimentation:** Administrators establish procedures and methods for creating innovations. The interviews suggested that research linked to practical applications should be used for innovation development, communication and teamwork skills should be enhanced to align everyone with a common goal, innovations should be tested and improved based on feedback to increase effectiveness, and training for administrators and teams in creating and developing innovations should be conducted.
9. **Creative Thinking:** Administrators can develop innovative ideas that are distinct, valuable, and beneficial to the institution. The interviews suggested that research processes should be practiced to identify problems and develop innovations, skills in communication and fostering a creative culture should be trained, seminars and forums for exchanging ideas should be organized, and training in creative thinking and innovation management should be provided.

10. Creative Thinking: Administrators demonstrate flexible thinking, think outside the box, and come up with novel ideas that are different from others. The interviews suggested that training in creative thinking, out-of-the-box thinking, and problem-solving should be organized, new technologies should be utilized, seminars and activities for exchanging ideas to create new perspectives should be held, and networks with administrators from other organizations should be established for exchanging ideas and experiences.
11. Creative Questioning: Administrators have skills in asking questions that build trust and confidence in organizational management. The interviews suggested that training in questioning skills and effective communication should be organized, opportunities for two-way communication should be created, a safe environment for expressing opinions without fear of criticism should be established, and academic approaches to questioning should be used to stimulate thinking and enhance learning.
12. Creative Questioning: Administrators use questioning methods that encourage analytical thinking to find answers. The interviews suggested that training in questioning skills, powerful techniques, and in-depth analysis to stimulate analytical thinking should be provided, questioning techniques that help listeners analyze and find answers themselves should be used, idea exchange and trust-building in teams should be promoted, and questions related to real situations and organizational contexts should be practiced to stimulate the search for new methods.

## 10. Discussion of research results

From the analysis of guidelines for developing innovative thinking skills of private school administrators in Samut Prakan Province, the key points for discussion are as follows:

*10.1. The current state of guidelines for developing innovative thinking skills of private school administrators in Samut Prakan Province is generally at a high level.*

This may be because private school administrators in Samut Prakan have skills in adapting quickly to changes, such as new technologies and educational systems. They create a culture that promotes innovation within the organization, provides opportunities for teachers and staff to participate in developing new ideas, and supports the necessary resources. Additionally, administrators are committed to continuous self-development to meet the needs of parents and students and to build cooperation with external networks for knowledge exchange and school development. This is consistent with the research by Kamolphon Wuttiorn (2019), which studied the innovative thinking skills of administrators and the effectiveness of schools under the Secondary Education Service Area Office 1, finding that all aspects were at a high level. It is also in line with the work of Orncharee Prajan and Sukanya Chamschoi (2018), who developed a management model to enhance innovative thinking skills among teachers in basic education institutions, finding that the innovative thinking skills of teachers, including communication, observation, questioning, experimentation, networking, linking, critique, synthesis, application, and creativity, were at a high level after development.

*10.2. The Necessity of Innovative Thinking Skills for Private School Administrators in Samut Prakan Province:*

10.2.1 Regarding Linking to New Knowledge: It was found that, overall, this aspect is at a high level. This may be because administrators have the ability to gather and analyze data from various sources, and their capability to link knowledge helps them develop new innovations and improve school management processes effectively. Linking knowledge allows administrators to make better decisions by providing diverse information and approaches to choose the most appropriate methods. Studying new trends in both management and educational development helps them connect existing knowledge with new ideas efficiently. Additionally, having skills in analyzing situations and applying knowledge from various fields helps develop new solutions to problems and enhance organizational efficiency. This is consistent with the research by Roengnarong Duangdeekaeo (2022), who studied the assessment of the necessity to develop innovative thinking skills of small secondary school administrators in Nakhon Phanom Province. The study found that the current promotion of innovative thinking skills among administrators was at a high level, and there was a primary need to develop linking skills. Administrators focused on developing innovative thinking skills by emphasizing the analysis of the ability to link

new knowledge with organizational development approaches to improve educational management efficiency in the digital age. This research reflects the importance of promoting innovation and adaptability of administrators in the context of rapidly changing education today. It is also aligned with the research of Orncharee Prajan (2017), which found that problem analysis linking questions, issues, or ideas from unrelated fields through questioning, observation, networking, and experimentation—using analogy, inductive and deductive reasoning, changing perspectives, expanding views, and restructuring—based on beliefs, experiences, and individual expertise acts as a catalyst for innovative thinking. This includes the application and adaptation to create new knowledge. Prajan (2017) also notes that linking new knowledge with existing knowledge, or connecting knowledge from different disciplines, results in more comprehensive information, and the detailed understanding of data and linking is one component of innovative thinking skills that leads to innovation development.

10.2.2 Regarding Observation: It was found that, overall, this aspect is at a high level. This may be because experienced and skilled administrators in educational management likely possess good observation skills due to their exposure to various situations and problems. Effective communication and collaboration with their team can help administrators observe problems and opportunities in a detailed and comprehensive manner. Administrators may also have received continuous training and skill development, which enhances their ability to observe and analyze problems effectively. Observation leads to the development of new ideas or products and fosters innovative creativity. This is consistent with the research by Orncharee Prajan (2017), which studied management models to develop innovative thinking skills among teachers in basic education institutions. The study found that observation skills play a significant role in management and can significantly enhance administrators' effectiveness. Using these skills to improve work processes and decision-making can result in better outcomes within the organization.

10.2.3 Regarding Experimentation: It was found that, overall, this aspect is at a high level. This may be because schools may foster a culture that encourages administrators to experiment with new approaches and learn from mistakes without fearing unfavorable outcomes. School administrators have skills in managing risks associated with experimentation, allowing them to experiment or find new solutions effectively and safely. If past experiments have been successful, administrators may be motivated and confident to conduct further experiments. Providing necessary resources and tools, such as budgets, technology, and personnel, supports experimentation and evaluation. This is consistent with the research by Orncharee Prajan (2018), which indicates that experimentation leads to innovation and creativity. It involves the ability to quickly identify problems of interest, formulate hypotheses using existing knowledge to predict answers, plan problem-solving strategies, and choose appropriate methods for finding new answers systematically to resolve issues accurately and effectively.

10.2.4 Regarding Creativity: It was found that, overall, this aspect is at a high level. This may be because administrators play a crucial role in setting the direction and planning the development of educational institutions. If administrators have the ability to think creatively, it will help ensure that changes are implemented effectively, drive progress, and better meet the needs of the institution. Schools may foster a culture that supports creativity, such as encouraging administrators to propose new ideas and experiment with new management methods. Supporting resources and tools for creative thinking, such as new technologies or budget allocations for testing new ideas, can be beneficial. Administrators may gain insights from learning and studying case studies related to innovation, which helps them develop better creative thinking approaches. This aligns with the research by Kamnit Baipakdee (2020), who studied methods for developing innovative thinking skills among teachers under the Office of Vocational Education Commission in Phra Nakhon Si Ayutthaya Province. The study found that the overall level of creative thinking skills is high, with an emphasis on courage to think and act imaginatively, creating new innovations by thinking outside the box, and fostering an environment conducive to creative thinking. It also aligns with the research by Kamolpan Wuttipakdee (2019), who studied the innovative thinking skills of administrators and their effectiveness in secondary education institutions under the Office of Secondary Education Service Area. The study found that the overall level of innovative thinking skills among administrators is high, with the mean scores ranked from highest to lowest in brainstorming and research, imagination transmission, detailed observation, synthesis, understanding individual differences, and transforming work into a playful activity. This is consistent with the research by Orncharee Prajan and Sukanya Chaemchoi (2018), who developed a management model to enhance innovative thinking skills among teachers in basic education institutions. They found that the



skills of innovative thinking among teachers, including communication, observation, questioning, experimentation, networking, linking, critique, synthesis, application, and creativity, were all at a high level after development.

10.2.5 Regarding Creative Questioning: It was found that, overall, this aspect is at a high level. This may be because schools may have a culture that encourages administrators to ask questions and challenge the current status quo, which stimulates creative thinking and innovative problem-solving. There may be training programs focusing on critical thinking or techniques for questioning to generate new ideas. Support for administrators to learn from experiences and experiment with new approaches helps develop valuable and beneficial questioning skills. Working with diverse teams and exchanging opinions contribute to creating creative and innovative questions. This is consistent with the research by Kamnit Baipakdee (2020), who studied methods for developing innovative thinking skills among teachers under the Office of Vocational Education Commission in Phra Nakhon Si Ayutthaya Province. The study found that creative questioning techniques emphasized PBL (Problem-Based Learning) and 5W, 1H methods to encourage analytical thinking and problem-solving. It also aligns with the research by Orcharee Prajan (2018), who studied management models to enhance innovative thinking skills among teachers in basic education institutions. The research found that innovative thinking skills among teachers include communication, observation, questioning, experimentation, networking, linking, critique, synthesis, application, and creativity. The evaluation of the draft model revealed that experts agreed with the three components: management, methods for developing innovative thinking skills among teachers, and innovative thinking skills.

*10.3. Guidelines for Developing Innovative Thinking Skills of Private School Administrators in Samut Prakan Province can be explained in detail as follows:*

10.3.1. Regarding the linkage to new knowledge, the development guidelines include: organizing training and seminars, supporting participation in activities that emphasize the exchange and integration of knowledge from multiple disciplines, developing systems thinking skills, using system analysis and mind mapping to link knowledge across different fields, practicing the use of digital tools, creating mind maps and using data management tools to enhance efficiency, supporting research, promoting research that uses knowledge from various fields to develop innovations, linking knowledge, practicing the integration of knowledge from multiple sources to solve problems in the school context and meet the school's needs, training in the use of technology and software for data analysis to efficiently collect and analyze data, and establishing a monitoring and evaluation system to improve and develop future processes. This aligns with the research of Nuntida Tipyasuwan (2022), which studied the development of teachers in creating innovative learning management at Maharat Bansang Arun School, under the Surathani Primary Educational Service Area Office 2. The research found that innovation development was conducted through workshops, knowledge exchange meetings, practical training in creating innovative learning management, and aligns with the research of Roengnarong DuangdiKaew (2022), who studied the assessment of the need for developing innovative thinking skills of small secondary school administrators in Nakhon Phanom Province. This study involved developing linkage skills through integrating problems from multiple sources to collaboratively solve issues, setting visions to improve work methods for greater efficiency, organizing workshops to address and solve diverse problems together, and practicing problem-solving to continuously develop linkage thinking skills. It is also consistent with the research of Kamonit Baiphakdee (2020), which states that guidelines for developing knowledge linkage to create new knowledge include: developing systems thinking, practicing digital tool use, promoting lifelong learning, creating learning networks, practicing creative questioning, encouraging questioning and observation to stimulate innovative thinking and search for new knowledge, and studying case studies related to knowledge linkage to understand methods and techniques used in applying new knowledge.

10.3.2. Regarding observation, the development guidelines include: conducting a SWOT analysis to assess the organization's strengths, weaknesses, opportunities, and threats, including creating contingency plans for risk situations and evaluating the impact of external factors. Establishing collaboration networks with parents, the community, and academic networks to enhance support and information exchange. Developing a system for collecting and analyzing data from various sources to effectively assess situations and risks. Organizing training

on data analysis and risk assessment to enhance decision-making capabilities. Practicing the use of technology and data analysis tools to improve the accuracy and speed of situation assessments. Holding monthly meetings to discuss current situations, risk assessments, and potential changes in the education system. This aligns with the research of Onchar Prathanchan (2017), who studied management models for developing innovative thinking skills among teachers in basic education institutions. The study involved practicing observation in diverse contexts, creating systematic observation activities, practicing the use of technology and tools for observation, developing reflective observation skills, organizing workshops to practice observation skills, and creating spaces for teachers to exchange quality observation experiences for continuous skill development. It also included creating observation networks: encouraging teachers to build networks for exchanging useful information and observation methods to enhance teaching and innovation in educational institutions.

10.3.3. Regarding experimentation, the development guidelines include: focusing on having administrators engage in hands-on practice to discover truths through innovation. Recommendations include conducting preliminary research, developing communication skills, sharing visions with the team, organizing training to build confidence in innovation development, experimenting and improving based on feedback, and training in creating and developing innovations with the team. This aligns with the research of Onchar Prathanchan (2018), who studied management in basic education institutions to develop innovative thinking skills among teachers. The study recommended that administrators should promote experimentation and testing new innovations in teaching by giving teachers opportunities to try new ideas and methods, as well as organizing training and supporting classroom research to build teachers' confidence in applying new knowledge to continuously improve teaching and learning.

10.3.4. Regarding creativity, the development guidelines include: administrators should practice research to identify problems and develop innovations through experimentation and refining work approaches. Organize training to develop communication skills and create a culture that fosters creativity and idea exchange. Hold seminars and discussion forums to allow administrators to share new perspectives, think outside the box, solve problems, and use new technologies to promote creative thinking. Encourage the creation of networks with administrators from other organizations to exchange ideas and experiences in organizational development. This aligns with the research of Kamonit Baiphakdee (2020), who studied ways to develop innovative thinking skills among teachers in the Office of the Vocational Education Commission in Phra Nakhon Si Ayutthaya Province. The study suggested that creativity development involves inspiring teachers to generate new ideas by learning from successful peers and providing training in creative thinking from experts. Encouraging extensive experimentation, including trial and error, fosters creativity and development of new ideas. Recognize and reward creative achievements to motivate teachers to be innovative thinkers and practitioners.

10.3.5. Regarding creative questioning, the development guidelines include: organizing training to develop questioning and communication skills with a focus on effective questioning to stimulate analytical thinking, and developing two-way communication skills to enable open exchange of opinions. Create a safe environment for expressing opinions, fostering an atmosphere where employees feel safe to voice their views without fear of criticism. Promote trust within the team, practice using academic approaches to questioning, and employ coaching techniques that help respondents think analytically and find answers independently. This encourages employees to participate in problem-solving and creative thinking. Link questions to real situations, practice asking questions relevant to the organization's context to stimulate the search for new ways to improve work and solve problems. This aligns with the research of Onchar Prathanchan (2018), who studied management models to develop innovative thinking skills among teachers in basic education institutions. The study proposed developing teachers' questioning skills by focusing on effective questioning to stimulate analytical thinking and creativity, using questioning as a tool and encouraging self-derived answers, creating a supportive environment for questioning, and linking questions to real situations. It also aligns with the research of Kamonit Baiphakdee (2020), who studied ways to develop innovative thinking skills among teachers in the Office of the Vocational Education Commission in Phra Nakhon Si Ayutthaya Province. The study recommended creative questioning development using Problem-Based Learning (PBL), starting with problems to generate questions that lead to finding answers and developing analytical thinking. Techniques like the 5W, 1H questioning methods (Who, What, When, Where, Why, and How) help in systematic questioning and deep analysis. Practice questioning that leads to analysis,

starting with familiar problems and using trial and error to find answers. PBL connects existing knowledge with new knowledge, helping teachers link various knowledge areas and find quality answers. Learning to connect knowledge from multiple sources through observation, questioning, and repeated trials helps in finding the true answers. Practice linking answers from small starting points, which helps in creating connections and finding comprehensive answers. Aim to ask questions that generate diverse answers and stimulate analytical thinking.

## 11. Recommendations

### 11.1. Recommendations for Applying Research Findings

Based on the research findings and the discussion above regarding the guidelines for developing innovative thinking skills among private school administrators in Samut Prakan Province, it was found that the current state, desired state, and necessary skills for innovative thinking of private school administrators are ranked in order of necessity as follows: linkage to new knowledge, experimentation, observation, creative questioning, and creative thinking. The researcher offers the following recommendations for applying the research findings to achieve the goal of developing innovative thinking skills among school administrators in Samut Prakan Province:

1. Linkage to New Knowledge: The research results indicate that this area has the lowest average score. Therefore, the educational service area office should organize workshops for administrators that integrate knowledge from various disciplines and apply research processes to improve work efficiency. This will serve as a guideline for developing the quality and sustainability of educational institutions.
2. Promoting Innovative Thinking Skills: The educational service area office can apply strategies to promote innovative thinking skills, including organizing learning methods and knowledge organization strategies that enable administrators to acquire necessary 21st-century skills. This will enhance their performance and advance the development of educational institutions.
3. Developing Thinking Processes: The educational service area office in Samut Prakan Province should establish guidelines for developing the thinking processes of school administrators under its jurisdiction. This should focus on clearly developing innovative and creative thinking skills as a principle and guideline in the province's human resource development system.

### 11.2. Recommendations for Future Research

1. Developing Innovative Thinking Skills: Future research should explore ways to develop innovative thinking skills among private school administrators in Samut Prakan Province, potentially through the use of specialized training programs.
2. Factors Affecting Innovative Thinking Skills: Investigate factors that impact the innovative thinking skills of administrators in pilot educational innovation areas.
3. Additional Factors: Study other factors that could contribute to the development of innovative thinking skills.

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# Exploring the Role of Educational Videos in Teacher Training: Usability, Satisfaction, and Pedagogical Intentions

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## Abstract

The rapid evolution of technology in the digital age has led to its widespread adoption in daily life, which has significantly influenced many sectors, including education. A total of 145 students were enrolled in this study conducted in The Higher School of Pedagogical and Technological Education's (ASPETE) Educational Technology and Multimedia course. The course included both theoretical and practical components, with students creating and utilising digital videos. A structured questionnaire with multiple evaluative variables was used to collect data on students' experiences and perceptions regarding the creation and use of educational videos. The findings clearly demonstrate that future educators intend to incorporate educational videos into their teaching practices. This highlights the necessity for teacher training programs to incorporate digital literacy and multimedia tools into their curriculum. The analysis conducted using Jamovi 2.3.18 revealed a significant positive correlation between usability, satisfaction, and the intention to use videos. This study will highlight the satisfaction of the future educators who participated in this process concerning of educational videos in enhancing learning experiences and provide insight into their effectiveness in modern pedagogical practices. It will advocate their inclusion in teacher education programs.

**Keywords:** Educational Videos, Teacher Training, Digital Literacy, Multimodal Learning, Video-Based Learning (VBL)

## 1. Introduction

As a result of the influx of digital tools into education, since the COVID-19 pandemic, educators have been challenged to adopt innovative teaching methods to engage students. Among these methods, educational video has emerged as a powerful and creative tool capable of transforming the learning experience by making it more interactive, accessible and engaging.

Any educational content that is freely available for use by teachers and/or students free of charge is called an "open educational resource" (OER) (Kanwar et al., 2011; UNESCO, 2012). Their educational value has to do

with their use as an integral part of the curriculum - thus adopting resource-based learning. These resources, when in digital form, can be shared over the internet. The key difference between an AEP and any other educational resource is the license. Looking back in history, we can observe a transformation in the field of education due to the evolution of technology and distance learning. Until the end of the 20th century, digital content was not yet expanded nor open to users. The possibility that was later given to create a digital resource and to share and store it opened new horizons in education. In 2002, the term OER (open educational resources) was first used, which refers to educational, learning and research resources that are public and freely available or produced with the right of free use and reuse by all (UNESCO, 2002). Open educational resources also include videos.

Given the evolution of technology and the availability of digital resources, although video is not a new concept in education, its importance is growing. The combination of audiovisual stimuli, enhances comprehension (Mayer, 2003), while appealing to more learning styles. The video combines not only sound and image but also text. Its multimodal nature is consistent with the principles of multimodal learning. Studies highlight its importance since multimodality facilitates better understanding and engagement when information is presented in more formats (Guichon & Cohen, 2016; Kress & Van Leeuwen, 2001).

Studying the effectiveness of video learning which has been continuously researched in recent years, it appears that the use of video can significantly improve students' understanding and retention of complex science and technology concepts (Guo, Kim & Rubin, 2014; Zhang et al., 2006). In addition to multimodality, video has interactive elements, such as quizzes, interactive videos, and prompts for discussion, which further enhance learning by encouraging students' active participation and critical thinking (Yousef, Chatti & Schroeder, 2014).

This study examines the views and experiences of future educators who were asked to create instructional videos and assesses their potential and potential to transform teaching practices. In the course on new technologies in education offered by ASPETE in Thessaloniki, which aimed at the creation of videos, 145 students participated in both theoretical and practical parts. In the course, students were trained and educated on how to design and produce effective educational videos. In addition, as part of the course, they were taught the principles of digital literacy and the use of multimedia.

It is important to stress the fact that teacher training programs should include digital literacy and multimedia tools. These programs prepare teachers to meet the demands of the modern digital classroom and enhance teaching effectiveness and student engagement by preparing them to create their own and/or use ready-made educational videos in their lessons. New paragraph: Use this style when you need to begin a new paragraph.

## **2. Theoretical Framework - Importance of Video in Education**

### *2.1. Multimodal Learning and Cognitive Theory*

Educational videos are an educational tool that enhances cognitive processing by utilising the principles of multimodal learning, where information is delivered through multiple sensory channels. People learn more effectively when they are provided with both visual and auditory information (Mayer, 2002). As mentioned, it reduces cognitive load, enhances retention and comprehension of complex concepts (Mayer, 2002).

Guo, Kim, and Rubin (2014) demonstrated that videos incorporating visual aids, animations, and demonstrations significantly enhance students' understanding. In addition, Zhang et al. (2006) demonstrated that interactive video-learning environments with videos lead to greater student satisfaction and better academic performance.

### *2.2. Video-Based Learning (VBL) and Cognitive Load Theory (CLT)*

This is where Cognitive Load Theory (CLT) comes in, focusing on the amount of mental effort involved with processing information and what instructional design strategies can be used to more effectively manipulate

cognitive load so that learning takes place. CLT classifies cognitive load into the following three main types:

Intrinsic load: This is the complexity that exists within the content (Sweller, 2010).

Extraneous load: loads created by organisational failures in instructional materials (Chandler & Sweller, 1991).

Germane load: mental activity required to process, build and automate schemas (Sweller, 2010).

For instructional videos, in the realm of video-based learning, however, we can leverage them to decrease extraneous load and increase germane load by presenting technical concepts through visual and auditory information that speaks directly to how our brains process complex knowledge (Mayer, 2002). Animations, motion graphics and demonstrations deliver more abstract concepts in a simpler form that the brain will grasp faster than it would with an explanation of how everything works. Exemplar Videos: Well-organized videos that integrate interactive elements (e.g., quizzes, discussion prompts) can support active learning which enhances germane cognitive load even more (Yousef, Chatti & Schroeder, 2014).

Mayer's Cognitive Theory of Multimedia Learning (2002) suggests that by combining visual and auditory information, we leverage dual channel processing to enhance comprehension. Each of the things that you present in slides can be used to help them get information through their visual channel on demand, while still feeding info via your auditory channel as well. Particularly in video-based learning where the usage of multimodal inputs (i.e., Images, Sound and Text) can nucleate different areas of the brain resulting in increased deeper memory retention and overall better performance during assessments (Mayer, 2003).

### *2.3. Video-Based Learning Implications*

Reducing Cognitive Overload: Educational videos aren't always designed well enough to avoid overwhelming the learner by piling on cognitive load. For example, limiting the text on screen and using good visuals alongside narration helps minimize extraneous cognitive load (Mayer, 2003).

Maximizing Germane Load: As video-based learning makes it possible to illustrate using real-world examples, animations or simulations that promote deeper understanding and schema-building. For example, the visualizations of science experiments or history re-enactments are facilitated by videos over text-based descriptions (Zhang et al., 2006).

Interactivity in VBL: Similar to the study aforesaid, interaction features in videos (e.g., interactive quizzes, branching scenarios) help significantly increase cognitive engagement. These tools help in keeping learners focused and moving towards the actively consuming information rather than passively sitting through lectures. It made learning livelier and more participatory (Yousef et al., 2014).

### *2.4. Interdisciplinary Applications of Video in Education*

As part of creating an engaging, comprehensive learning experience transcending disciplinary boundaries, videos should incorporate elements from a wide range of subjects. Videos are an interdisciplinary material (Ito et al., 2013) because curricular mobility lessons can be crossed between different scenarios. Incorporating academic, social, and cultural learning into their teaching activities through video is what educators need. Video is an important tool while designing culturally responsive or socially engaging lessons.

### *2.5. Training of future educators*

Future educators must create and utilise video content effectively to integrate video into education. Future educators must be trained to acquire technical skills, pedagogical knowledge, and knowledge of multimedia principles. TPACK (Technological Pedagogical Content Knowledge) is a model developed by Koehler and Mishra (2009) that makes it clear that teachers must possess a combination of technological, pedagogical, and content skills.

It is clear from numerous studies that teachers who receive training in video production and analysis are more confident and more effective in incorporating videos into their classrooms. Furthermore, Barton and Ryan (2014) demonstrated that pre-service teachers who participated in video-making workshops developed a deeper understanding of the subject matter and improved their teaching techniques.

Video in education allows students to learn more interdisciplinary, become more effective educators and gain better comprehension. As educational technologies continue to evolve, it is crucial that teachers receive comprehensive training so they can fully utilise video as a teaching tool. Video is an effective tool for engaging, interacting, and catering to the diverse needs of all students in a learning environment.

### *2.6. Purpose of the research and specific objectives*

The purpose of this research was to diagnose the perception of future teachers towards a new educational practice introduced by the group of ASPETES' educators, which involved the creation of a virtual narrative, in the context of teaching educational technology courses. The research questions were related to the creation of an educational video and its use in pedagogical practice. More specifically, we sought answers to the questions related to video creation from script to creation. Moreover, this research is to investigate the attitudes of prospective teachers in relation to the importance of using video in the educational process. Sub-objectives are to investigate the teachers' predisposition regarding the creation of videos by themselves, as well as to investigate correlations between the factors involved in their use and creation. Finally, any significant statistical differences in the groups that make up the demographic characteristics in relation to the main factors are examined. Research questions to be researched:

What demographic characteristics (e.g. age, gender and teaching experience) moderate the effect of primary factors like utility, usability, private resources satisfaction intention to use in shaping the adoption of educational videos into pedagogical practices?

What are the attitudes of prospective teachers towards the use of video in the educational process?

What is the intention of the prospective teachers regarding the creation of videos by themselves?

How do the main factors of video creation and use correlate with each other?

Which factors have a statistically significant effect on the satisfaction factor in relation to video creation?

Which factors have a statistically significant effect on the factor 'intention' in relation to video creation?

## **3. Research design**

This was an empirical study that explored the creation and use of instructional videos in pedagogical practices. It examined the perspectives and experiences of students attending the Annual Pedagogical Training Program (EPPAIK) of ASPETE in Thessaloniki, Greece. As a result of this study, insights were captured from the training of the trainees during an academic year at different stages.

## **4. Methodology**

### *4.1. Data collection - Research instrument*

For data collection, the participating students were asked to answer the questions of a structured questionnaire. Students were asked about their familiarity with making instructional videos, the techniques and tools they used, the challenges they faced, and the perceived benefits of using instructional videos.

### *4.2. Sample*

The present empirical study has as subjects 145 students, who were attending the annual pedagogical training program of ASPETE in Thessaloniki.



#### 4.3. Narrative techniques and content analysis

Within the research, narrative techniques were used to analyse a range of textual content, including still and moving images.

#### 4.4. Collaborative video production

A video production was the culmination of the research. During the course, students created instructional videos based on the principles and techniques taught in the course theory. By putting theory into practice, they were able to gain a deeper understanding of the video-making process through this hands-on experience.

### 5. Results

The questionnaire includes as many identifying variables as possible to ensure liability and validity. The five-point Likert scale is used to minimize the effects of incorrect responses due to misunderstanding the content of a variable or selecting the wrong one. All procedures are followed to ensure the validity and reliability of the questionnaire. This includes indicators of internal consistency and relevance, as well as structural and consistency. The research instrument, and in particular the questionnaire, has been created based on the literature review and a focus group with experts in pedagogy, new technologies and video scripting.

The data from this pilot application were analysed using the statistical package Jamovi 2.3.18. Appropriate techniques are applied to ensure the validity and reliability of the research tool at the outset. Reliability of a measure Means the instrument is stable and consistent in measuring a concept, which contributes to its reliability. Specifically, we use Cronbach's alpha to calculate the reliability of the measures. This coefficient is a reliable indicator of the internal consistency of the variables that the research seeks to form a new extracted factor.

In this study, a normal distribution test was conducted. It is possible for populations, regardless of whether they have identical locations (equal Means) or equal dispersions, to differ greatly in other characteristics. Consequently, hypothesis tests on location or variability parameters (mean, percentage points, dispersion) are unable to discern differences in other population characteristics. Consequently, in order to test hypotheses regarding the unknown probability distribution of a random variable on which observations (samples) have been made, it is necessary to propose an alternative hypothesis. This approach will be more comprehensive in that it will encompass all percentage points simultaneously, rather than focusing on a single median value. Furthermore, the hypothesis should encompass all probabilities simultaneously, rather than focusing on single or select probabilities. In essence, the normality of the quantitative variable is evaluated for each value of the qualitative variable (normal distribution). A goodness-of-fit test for the normal distribution that can be used in place of the Lilliefors test is the Shapiro-Wilk normality test. Empirical studies have demonstrated that this test has high power in many cases compared to other tests of the complex normality hypothesis, including the Lilliefors test and the  $\chi^2$  test.

The lack of normality that emerges after the Shapiro-Wilk test and data analysis Means that non-parametric tests such as the Mann-Whitney test must be used. These tests test the null hypothesis that two sample distributions, relating to a quantitative variable, come from the same population. Applying these non-parametric tests ensures the reliability of the results while addressing the problem of non-normality. To investigate differences between three or more sample groups in the population, the Kruskal-Wallis test was applied as the non-parametric criterion. The Spearman coefficient is used to test the degree of correlation between two variables. The correlation coefficient is a numerical indicator of the degree of correlation between two sets of observations, which can range from -1.00 to +1.00. A positive correlation is indicated by a + sign, while a negative correlation is indicated by a - sign. The + sign indicates that as one variable increases, the other also increases. Conversely, the - sign shows that as one variable increases, the other decreases.

We examine the correlations between the independent and dependent variables by applying linear regression. The dependent variable (Y) is defined as a variable whose values depend on the values of the independent variable (X). This Means that the relationship between them is stochastic or statistical, since each value of (X) may correspond to more than one value in (Y). In the case of multiple independent variables, multiple linear regression was used to examine their effect on a dependent variable.

The following table summarizes the values of the Crombach's alpha coefficient for the main variables. The Crombach's alpha for all variables is acceptable since they have a value greater than 0.70.

Table 1: Cronbach's a

<i>Variables</i>	
Utility	0.800
Usability	0.879
Satisfaction	0.902
Private Resources	0.852
Intention	0.828
Collaboration	0.894

The relationship between the six main ones is examined using a linear correlation coefficient.

Utility shows a statistically significant medium positive correlation with Usability ( $r=0.427$ ,  $N=145$ ,  $p<0.001$ ), with Satisfaction ( $r=0.480$ ,  $N=145$ ,  $p <0.001$ ), with Private Resources ( $r=0.446$ ,  $N=145$ ,  $p<0.001$ ), with Intention ( $r=0.397$ ,  $N=145$ ,  $p<0.001$ ) and with Collaboration ( $r=0.346$ ,  $N=145$ ,  $p<0.001$ ).

In relation to Usability there is a statistically significant strong positive correlation with Satisfaction ( $r=0.773$ ,  $n=145$ ,  $p <0.001$ ), Private Resources ( $r=0.623$ ,  $N=145$ ,  $p <0.001$ ) and Intention ( $r=0.597$ ,  $N=145$ ,  $p <0.001$ ). In contrast, Collaboration shows a statistically significant low positive correlation ( $r=0.205$ ,  $N=145$ ,  $p <0.05$ ).

Satisfaction shows statistically significant strong positive correlation with Private Resources ( $r=0.675$ ,  $N=145$ ,  $p<0.001$ ) and Intention ( $r=0.572$ ,  $N=145$ ,  $p<0.001$ ). In contrast, it shows a statistically significant medium positive correlation with Collaboration ( $r=0.292$ ,  $N=145$ ,  $p<0.001$ ).

Private Resources show a statistically significant strong positive correlation with Intention ( $r=0.715$ ,  $N=145$ ,  $p<0.001$ ) and correspondingly statistically significant positive medium correlation with Collaboration ( $r=0.327$ ,  $N=145$ ,  $p<0.001$ ).

Finally, Intention shows a statistically significant medium positive correlation with Cooperation ( $r=0.279$ ,  $N=145$ ,  $p<0.001$ ).

Table 2: Correlation table

	<i>Utility</i>	<i>Usability</i>	<i>Satisfaction</i>	<i>Private Resources</i>	<i>Intention</i>
Usability	0.427 ***	—			
Satisfaction	0.480 ***	0.773 ***	—		
Private Resources	0.446 ***	0.623 ***	0.675 ***	—	
Intention	0.397 ***	0.597 ***	0.572 ***	0.715 ***	—
Cooperation	0.346 ***	0.205 *	0.292 ***	0.327 ***	0.279 ***

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

The following linear regression table clearly shows that the coefficient of the variable Usability has the largest statistically significant effect on the variable Satisfaction. The coefficient of the variable Private Resources also shows a statistically significant positive effect on the variable Satisfaction.

Table 3: Linear Regression table for dependent variable Satisfaction

<i>Independent Variables</i>	<i>Standard Estimate</i>	<i>t</i>	<i>p</i>
Utility	0.1078	1.89	0.061
Usability	0.5507	8.69	< 0.001
Private Resources	0.2652	4.06	< 0.001
Cooperation	0.0551	1.05	0.298

$R^2 = 0.673$ , the model  $R^2$  is highly responsive to the dependent variable Satisfaction.

According to the linear regression table below, the coefficient of the Private Resources Usability variable shows the largest statistically significant effect on the Intention variable. Correspondingly follows the coefficient of the variable Usability shows statistically significant positive effect on the variable Intention.

Table 4: Linear Regression table for dependent variable Intention

<i>Independent Variables</i>	<i>Standard Estimate</i>	<i>t</i>	<i>p</i>
Usability	0.2445	2.650	0.009
Satisfaction	-0.0138	-0.140	0.889
Private Resources	0.5381	6.643	< 0.001
Cooperation	0.0414	0.666	0.506

$R^2 = 0.552$ , the model  $R^2$  is highly responsive to the dependent variable Intention.

In the table below it is observed that to  $p < 0.05$  indicating that there is no normal distribution in the variables under test.

Table 5: Normal distribution test table for gender (Shapiro-Wilk)

	<i>W</i>	<i>p</i>
Utility	0.867	< 0.001
Usability	0.949	< 0.001
Satisfaction	0.905	< 0.001
Private Resources	0.953	< 0.001
Intention	0.907	< 0.001
Cooperation	0.833	< 0.001

According to the non-parametric Mann-Whitney U-test, the gender difference shows statistical significance only in terms of Intention.

Table 6: Mann-Whitney U test table with respect to gender

	<i>Statistic</i>	<i>p</i>
Utility	2147	0.839
Usability	2159	0.882
Satisfaction	2074	0.604

Private Resources	2005	0.411
Intention	1700	0.030
Cooperation	2030	0.471

According to the table below, men appear more willing (Mean=4.26 SD=0.556) than women (Mean=4.04 SD=0.710) to use video as a teaching tool.

Table 7: Table of gender groups' differentiation in relation to Intention

	<i>N</i>	<i>Mean</i>	<i>SD</i>
Male	43	4.26	0.556
Woman	102	4.04	0.710

In the table below it is observed that to  $p < 0.05$  indicating that there is no normal distribution in the variables under test.

Table 8: Normal Distribution test table for Teaching Experience (Shapiro-Wilk)

	<i>W</i>	<i>p</i>
Utility	0.868	< 0.001
Usability	0.954	< 0.001
Satisfaction	0.916	< 0.001
Private Resources	0.961	< 0.001
Intention	0.921	< 0.001
Cooperation	0.852	< 0.001

According to the non-parametric Mann-Whitney U-test, the difference between having or not having teaching experience shows statistical significance in terms of Usability and Satisfaction.

Table 9: Mann-Whitney U test table in relation to Teaching Experience

		<i>Statistic</i>	<i>p</i>
Utility	Mann-Whitney U	2501	0.881
Usability	Mann-Whitney U	1905	0.011
Satisfaction	Mann-Whitney U	1711	< 0.001
Private Resources	Mann-Whitney U	2209	0.181
Intention	Mann-Whitney U	2419	0.630
Cooperation	Mann-Whitney U	2312	0.356

According to the table below, participants with no experience in education consider the video creation application more usable (Mean=3.85 SD=0.640) than their counterparts with experience (Mean=3.55 SD=0.646). Similarly again participants with no experience in education are more satisfied with the video creation application (Mean=3.81 SD=0.707) compared to their counterparts with experience (Mean=3.40 SD=0.771).

Table 10: Table of descriptive characteristics in relation to Previous Experience in education

	<i>Groups</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>
Usability	No Experience	86	3.85	0.640
	With Experience	59	3.55	0.646
Satisfaction	No Experience	86	3.81	0.707
	With Experience	59	3.40	0.771

The table below demonstrates that there are no statistically significant differences between the groups that make up the age variable since  $p > 0.05$ .

Table 11: Age group differentiation test table (Kruskal-Wallis)

	$\chi^2$	<i>df</i>	<i>p</i>
Utility	2.518	3	0.472
Usability	2.239	3	0.524
Satisfaction	1.000	3	0.801
Private Resources	5.739	3	0.125
Intention	3.317	3	0.345
Cooperation	3.574	3	0.311

The table below demonstrates that there are no statistically significant differences between the participants' specialty groups since  $p > 0.05$ .

Table 12: Specialty differentiation test table (Kruskal-Wallis)

	$\chi^2$	<i>df</i>	<i>p</i>
Utility	5.86	5	0.212
Usability	2.32	5	0.677
Satisfaction	4.91	5	0.296
Private Resources	4.90	5	0.297
Intention	2.90	5	0.575
Cooperation	1.12	5	0.891

According to the table below, most of the participants in the questionnaire were from the Sciences. This is followed by those from Health Sciences. There was parity in the number of the sample coming from Humanities and Social Sciences. Finally 10 of the participants were from other sciences.

Table 13: Frequencies of occurrence of specialities

<i>Specialty</i>	<i>N</i>	<i>Percentage %</i>
Humanities	20	13.8 %
Social Sciences	20	13.8 %
Sciences	48	33.1 %
Health Sciences	47	32.4 %
Other	10	6.9 %

In relation to the participants' familiarity with the video-making process prior to their participation in the ASPETE EPPAIK program, the Mean is low (Mean=2.29 SD=1.21). An even lower Mean is observed in the use of another creator's video creation as a teaching tool (Mean=1.68 SD=0.977). Similarly, the mean in the use of video creation of the teacher's own video (Mean=1.36 SD=0.663).

Table 14: Table of averages

	<i>Familiarity with video creation</i>	<i>Use of another creator's video</i>	<i>Use of video of the same</i>
Mean	2.29	1.68	1.36
SD	1.21	0.98	0.66

Most of the participants in the questionnaire (61.4%) state that they have watched another author's video with educational material related to their field of expertise.

Table 15: Frequency table Other Creator's Video Watching

<i>Watch another creator's video</i>	<i>Frequency</i>	<i>Percentage %</i>
No	56	38.6 %
Yes	89	61.4 %

Of those above who watched another creator's video, 57.9% indicate that they received help with their own efforts to create an educational video.

Table 16: Frequency table for accepting self-help video creation effort

<i>Accepting assistance with your own video Creation effort</i>	<i>Frequency</i>	<i>Percentage %</i>
No	61	42.1%
Yes	84	57,9%

In all cases of the main variables, the trend of the responses is clearly positive, with the majority of participants responding in a positive manner. This is evidenced by the mean's moving discretely above the Mean value 3 of the respective scale. However, it is crucial to record the participants' intention to use video when teaching their subject matter as a Means of activating their students. It is clear that collaboration is essential for the production of digital video files if a collective result is to be achieved.

## 6. Discussion

The present study conducted at the School of Pedagogical and Technological Education (ASPETE) provides valuable insights into the role of video training in teacher education. The study enrolled 145 students in the Educational Technology and Multimedia course, which included both theoretical and practical components. This comprehensive approach allowed students to engage deeply in the creation of educational videos from conceptualisation to scripting to production and evaluation. The study found that students intend to incorporate educational videos into their future teaching practices in large numbers. More broadly, this study will contribute to the ongoing story of digitization in education by providing preliminary evidence on how video-based learning (VBL) may influence teaching effectiveness and student engagement.

1. Theoretical Framework and Literature: This study is built on a solid theoretical foundation, drawing upon multimodal learning theory and cognitive models including Mayer Cognitive Theory of Multimedia Learning. They highlight that information must be delivered through different senses to reduce cognitive load and increase retention. It conforms to existing research, showing that students learn and are more engaged with

educational videos on difficult topics such as science and technology. It could go further into what this study contributes to our knowledge overall but also how it uses these theories within the teacher-training context.

2. The study results suggest that multimodal learning resources (e.g. videos) can have positive effects on student educational outcomes by addressing varying learning styles; The relation between interactivity features and cognitive load of video lectures highly depends on individual students, whereby some especially engaged with higher levels throughout the course might benefit from Continue Watching functions while others may not do so;} Possible question/the topic that could be discussed: How do the principles of cognitive load theory work in creating and employing educational videos. For example you could evaluate the ways in which different forms of video (e.g. motion graphics, demonstrations, interactive quizzes) add or remove cognitive load. Interestingly, videos have the potential to cross disciplinary boundaries and result in learning across different fields too which is in line with an all-round integrated education.

3. Teacher Training and TPACK Model: This has been taken as a vital part of the study with focus on teacher training for which Technological Pedagogical Content Knowledge (TPACK) model is brought into context. This finding reflects that, in order to integrate videos into their teaching activities effectively, future educators need a combination of appropriate tools and materials from video making skills as technical items, pedagogical understanding needed for educational processes or methods regarding how to teach using technologies. Once again, the conversation could delve into what it means to teach educators to be more well-rounded another domain. To what extent do our current teacher education programs prepare educators for this, and where are there gaps?

4. The methodology using a structured questionnaire and applying statistical analysis with Jamovi is strong meaning the reliability of student perceptions can be obtained. But the conversation would challenge how this view is more flawed than not. For example, what type of bias could self-reported data create? The fact that the data was not normally distributed and non-parametric tests were thus used in this study, casts uncertainty on how generalizable the results are. Investigating the long-term impact of VBL on teaching practices could be expanded in future works based upon alternative or complementary methodological lines (i.e. longitudinal research and/or qualitative inquiry), for example, to further explore more nuanced ways such processes unfold over time.

5. Gender and Experience-Based Differences: The study has interesting results in terms of gender and experience. More male participants and those without prior teaching experience were more interested in using videos as a tool for facilitating instruction. This would lead to the discussion on those implications at teacher education level. Why is there a difference in these numbers. Could it be attributed to things like previous familiarity with technology, or how confident people are? This perspective might allow for defining more inclusive training programs that are able both to improve and satisfy larger slices of the educators' population.

6. Educational Practice: The study suggests that future educators will likely use educational videos in their teaching practices, but this calls for teacher training programs to incorporate digital literacy and multimedia tools. This could be expanded in the further discussion to consider what this may imply for educational practices. How will VBL impact traditional teaching and classroom experiences, as well as learning outcomes? Furthermore, research on open educational resources (OER) to enhance equitable access to high-quality educational materials is warranted.

## 7. Conclusion

The findings of the study emphasized the necessity of providing comprehensive digital literacy and multimedia training in formal education and teacher training programs, with an emphasis on the creation of effective educational videos. The research also has lessons on one of the key features that defines how good an educational video is – and it shows, almost exactly to scale, the importance of collaboration in making educative videos more effective.

The paper concludes by recommending that teacher education programs incorporate video production and analysis into their training in order to prepare educators for the demands of contemporary digital classrooms. This addition of multimedia tools in teaching methodologies is believed to be crucial for keeping students engaged and meeting the variety fidelity needs within a contemporary digital-centric world.

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# Academic Administration to Develop Proactive Learning Management for Teachers in Sarasas Affiliated Schools

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## Abstract

This research aimed to: 1) study the current state, desired state, and necessary needs in academic administration to develop proactive learning management for teachers in Sarasas affiliated schools, and 2) explore approaches to academic administration for enhancing proactive learning management among teachers in Sarasas schools. The sample group consisted of 159 Sarasas school administrators. The research tools included questionnaires, interviews, and content analysis. The reliability of the current state assessment was 0.975, and the desired state assessment was 0.959. Data was analyzed using basic statistics such as percentage, mean, and standard deviation. The assessment of necessary needs in academic administration to develop proactive learning management for teachers in Sarasas-affiliated schools was conducted using the Modified Priority Needs Index (PNI<sub>modified</sub>) to rank needs. The current state of academic administration to develop proactive learning management for teachers in Sarasas affiliated schools was generally at a high level. When considering individual aspects, the highest average score was in evaluation and assessment, while the lowest was in curriculum development. The desired state of academic administration to develop proactive learning management for teachers in Sarasas-affiliated schools was also at a high level. The aspect with the highest average score was teaching and learning management, and the lowest was curriculum development. The ranking of necessary needs for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools, from most to least needed, was curriculum development, teaching and learning management, and evaluation and assessment. The approaches to academic administration to develop proactive learning management for teachers in Sarasas affiliated schools included: for curriculum development, establishing a curriculum committee, analyzing the school context, setting goals to adjust the curriculum structure, studying theories, promoting competence development for future readiness, adding courses that align with local arts, culture, and community needs, conduct research to improve efficiency, and monitor teaching outcomes; for teaching and learning management, understand student needs, adjust teaching according to different groups, encourage diverse activities, create a confident learning environment, stimulate thinking through questions and experiments, provide feedback, and evaluate progress; for evaluation and assessment, develop assessment tools, conduct continuous evaluations, use feedback to improve transparency, and enhance teachers' skills.

**Keywords:** Academic Administration, Proactive Learning Management

## 1. Introduction

In the current era, the world is experiencing rapid changes, which have become evident after the COVID-19 pandemic. These changes affect every sector of society, raising numerous questions about the future in this new age. The concept of the BANI World, presented by Jamais Cascio (2020) in his writings for the IFTF (Institute for the Future, a think tank), attempts to explain and forecast this new world. It suggests that the world is fragile, filled with brittleness, anxiety, nonlinearity, and incomprehensibility. This fragility impacts the stability of various organizations and creates widespread effects globally. Understanding the BANI World will help people view reality more clearly, enabling them to prepare for the uncertain changes of the future. Kraaijenbrink (2022) notes that these ambiguous changes affect all aspects of society, including financial crises, environmental issues, and health concerns.

Thailand, therefore, must begin to adjust its national management according to the national strategic plan of "Creating a Knowledge Society," focusing on development within the framework of a 20-year national strategy (2018-2038). This strategy aims to create a balance between economic, social, and environmental development, as well as to comprehensively enhance human resource capabilities. "Thais in the future must be physically, mentally, and intellectually prepared, have balanced development in all areas, and maintain well-being at every age. They should possess public-mindedness, responsibility towards society and others, savings habits, generosity, discipline, moral integrity, and be good citizens. They must have the right mindset, necessary skills for the 21st century, proficiency in English and a third language, while preserving local languages, and a lifelong love of learning and self-development. This will lead them to become highly skilled individuals, innovators, thinkers, entrepreneurs, modern farmers, and more, aligning with their aptitudes," ensuring they keep pace with the current world and are prepared for future changes. Creating a new generation of teachers who act as supporters of learning and skill development essential for the 21st century is thus crucial. The shift in teachers' roles from instructors to coaches and facilitators, along with their continuous professional development, is key to enhancing educational quality and effective learning management. This aligns with the policies of the Office of the Basic Education Commission (2018) and the National Education Act of 1999.

The National Education Act of 1999, amended (4th Edition) in 2019, establishes guidelines for lifelong learning (Sections 8 and 25) and the continuous development of learners (Section 66). It aims to develop individuals holistically—mentally, physically, intellectually, emotionally, and socially—while ensuring they possess the knowledge, skills, and happy living conditions (Ministry of Education, 2004). The Basic Education Core Curriculum of 2008 focuses on developing learners to achieve balance in physical, cognitive, moral, and life skills for happiness (National Education Act, 2008). Academic administration is therefore essential in enhancing educational quality by emphasizing the curriculum and critical teaching processes necessary for contemporary and future learning.

Academic administration is a core aspect of school management, focusing on learning and academic development to improve the efficiency and quality of educational services (Sukanya Chamschoi, 2022; Pramez Charoenuch, 2022). Active Learning is a significant strategy, emphasizing student engagement in the learning process and the development of essential skills.

The Sarasas School Network, established in 1964 by Professor Phiboon and Professor Pensri Yongkamol, is an educational institution under the Office of the Private Education Commission, which uses English as a medium of instruction alongside Thai content. It aims to improve educational quality and learning according to national curricula and policies, with a focus on enhancing skills in English, mathematics, science, and technology. The Sarasas School Network is a modern learning institution that keeps pace with rapid changes, aiming to develop teachers and learners into creative thinkers, readers, presenters, problem solvers, and life planners in the context of Thai society and the global landscape moving towards the digital age. It seeks to provide more engaging learning experiences that align with societal and technological changes (Documentation of the Meeting on Planning for the 2023 Academic Year). This aims to ensure that learning management is effective and responsive to students' needs.

Given the aforementioned context, academic administration to develop proactive learning management for teachers in Sarasas-affiliated schools represents a strategy that can be applied to utilize research findings in planning and improving academic administration. This approach ensures that teachers develop their learning management in alignment with contemporary educational practices, enhancing both the efficiency and effectiveness of schools and benefiting students in the future.

## 2. Research Questions

1. What are the current conditions, desired conditions, and essential needs for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools?
2. What should be the guidelines for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools?

## 3. Research Objectives

1. To study the current conditions, desired conditions, and essential needs for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools.
2. To explore the guidelines for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools.

## 4. Research Methodology

The research on academic administration to develop proactive learning management for teachers in Sarasas affiliated schools was conducted using a mixed methods design to align with the research objectives. To study the current conditions, desired conditions, and essential needs for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools. To explore the guidelines for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools. The research process includes two main steps

Step 1: Studying the current conditions, desired conditions, and essential needs for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools. This step employs quantitative research methods.

Step 2: Exploring the guidelines for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools. This step utilizes qualitative research methods, including interviews with experts to gather data that will form the basis for the development of guidelines for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools.

## 5. Research instrument

**Step 1: Studying the current conditions, desired conditions, and essential needs for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools.**

### 5.1 Population and Sample Group

5.1.1 The population in this study consisted of 270 school administrators from 46 Sarasas affiliated schools.

5.1.2 The sample group included administrators from the 46 Sarasas affiliated schools (as documented in the meeting summary of the Sarasas School Executive Committee). The sample size was determined using Krejcie and Morgan's (1970) table, with a simple random sampling method applied per school. A total of 159 administrators were selected as the sample group.

### 5.2 Data Collection Tools

The researcher used a questionnaire to study the guidelines for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools. The questionnaire consisted of three sections

Section 1: General information about the respondents, presented in a checklist format, covering gender, age, education level, position status, and work experience.

Section 2: Current and desired conditions of academic administration to develop proactive learning management for teachers in Sarasas affiliated schools. This section used a 5-point rating scale.

Section 3: Open-ended questions for additional comments or suggestions regarding academic administration to develop proactive learning management for teachers in Sarasas affiliated schools.

### *5.3 Development and Quality of the Research Instruments*

5.3.1 The researcher reviewed literature, concepts, theories, and relevant research on academic administration and proactive learning management for teachers.

5.3.2 A conceptual framework for the research was established, and key terms were defined to guide the development of the questionnaire.

5.3.3 The draft questionnaire was reviewed by the research advisor to ensure accuracy and appropriateness, with revisions made based on feedback.

5.3.4 Content validity was assessed by presenting the questionnaire to five experts to evaluate the alignment between the questions and objectives using the Item-Objective Congruence Index (IOC).

5.3.5 The content validity analysis showed that the questions had IOC values ranging from 0.60 to 1.00, indicating that the research instrument was suitable for use in data collection.

5.3.6 After revisions based on expert feedback, the questionnaire was tested with 30 individuals from a non-sample population to evaluate its reliability and ensure clarity of language.

5.3.7 The overall reliability of the questionnaire was determined using Cronbach's Alpha Coefficient (Cronbach, 1951), with current conditions yielding 0.975 and desired conditions yielding 0.959.

5.3.8 The final version of the questionnaire was then printed and distributed to the sample group for data collection.

### *5.4 Data Collection*

5.4.1 The researcher requested a formal letter from the Graduate School of Suvarnabhumi Institute of Technology to the administrators of Sarasas affiliated schools, seeking cooperation for the data collection.

5.4.2 The researcher coordinated with 46 sample schools to gather data on the current and desired conditions of academic administration through online questionnaires using Google Forms.

5.4.3 Data on the current and desired conditions was collected from 159 administrators, representing a 100% response rate.

### *5.5 Data Analysis*

5.5.1 General information from the respondents was analyzed using SPSS for Windows to calculate frequency (f), percentage (%), mean ( $\bar{x}$ ), and standard deviation (S.D.).

5.5.2 The current and desired conditions of academic administration were interpreted using a 5-level rating scale based on the guidelines by Boonchom Srisa-ard (2013, p. 121).

5.5.3 The essential needs for academic administration were evaluated and ranked using the Modified Priority Needs Index (PNImodified) to calculate the prioritization of these needs based on the formula provided by Suwimon Wongwanich (2015).

## **Step 2: Study of Academic Administration Guidelines to Develop Proactive Learning Management for Teachers in Sarasas Affiliated Schools**

This step of the research aims to fulfill the second objective—studying the academic administration guidelines for developing proactive learning management for teachers in Sarasas affiliated schools. After analyzing the data from the first objective, the researcher reviewed related literature and research to identify relevant academic administration strategies. The researcher conducted in-depth interviews with 7 key informants selected through purposive sampling. These interviews helped form the guidelines for academic administration in Sarasas affiliated schools.

*5.2 Key Informants The in-depth interview was conducted with 7 key informants, divided into four subgroups:*

5.2.1 One senior administrator responsible for setting policies for Sarasas schools. This individual holds a doctoral degree and has over 10 years of experience.

5.2.2 Two Sarasas school administrators, each with at least 5 years of administrative experience and a master's degree or higher.

5.2.3 Two university professors with doctoral degrees or associate professor rank and knowledge of academic administration to develop proactive learning management.

5.2.4 Two learning management specialists with at least a master's degree, focusing on proactive learning strategies.

### *5.3 Data Collection Instruments*

Research Instruments for this phase was an in-depth interview guide focusing on academic administration to develop proactive learning management. The interview questions were semi-structured, designed to allow flexibility, enabling the researcher to gather in-depth information that reflects real conditions. The questions were formulated after a review of relevant literature and were presented to the 7 key informants by the researcher.

Part 1: General information about the informants, in the form of short-answer questions.

Part 2: Structured questions related to guidelines for academic administration to develop proactive learning management for teachers in Sarasas schools.

### *5.4 Instrument Development Steps*

The researcher followed these steps to develop the interview instrument

5.4.1 The researcher reviewed theories, books, documents, and related research to inform the creation of the interview guide.

5.4.2 Information from Step 1, including current and desired conditions and needs in academic administration, was used to draft the interview framework, which was reviewed by the thesis advisor.

### *5.5 Data Collection Process*

The researcher collected data through in-depth interviews with the 7 key informants, following these procedures:

5.5.1 A letter from the Graduate School of Suvarnabhumi Institute of Technology was sent to seek permission for the interviews. The researcher contacted each informant to request an interview.

5.5.2 Appointments were scheduled with the informants individually to determine the date, time, and location of the interviews.

5.5.3 The interviews were conducted according to the agreed schedule, and the interview guidelines were shared with the informants in advance to allow them to prepare.

### 5.6 Data Analysis

The researcher organized and summarized the interview data through content analysis.

## 6. Results of Data Analysis

The results were presented in two stages

*6.1. Step 1: The study of the current and desired conditions and needs for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools.*

Results of Analysis of Current and Desired Conditions in Academic Administration for Enhancing From a sample group of 159 individuals, the analysis was conducted to find the average and standard deviation of the current state, desired state, and essential needs in academic administration aimed at enhancing proactive learning management for teachers in Sarasas affiliated schools. The results of the analysis are shown in Table 1.1.

Table 1.1: Proactive Learning Management for Teachers in Sarasas Affiliated Schools (n = 159)

Academic Administration	Current State			Desired State		PNI	Rank
	$\bar{x}$	S.D.		$\bar{x}$	S.D.		
1. Curriculum Development	4.03	0.52	high	4.43	0.51	high	99
2. Teaching Management	4.14	0.56	high	4.47	0.58	high	79
3. Assessment and Evaluation	4.13	0.58	high	4.46	0.57	high	79
<b>Total</b>	<b>4.10</b>	<b>0.55</b>	high	<b>4.45</b>	<b>0.55</b>	high	<b>85</b>

From Table 1.1, it is observed that the current state of academic administration for enhancing proactive learning management for teachers in Sarasas affiliated schools is at a high level ( $\bar{x} = 4.10$ , S.D. = 0.55). When examined by area, the highest average was found in the assessment and evaluation area ( $\bar{x} = 4.13$ , S.D. = 0.58), while the lowest average was in the curriculum development area ( $\bar{x} = 4.03$ , S.D. = 0.52).

The desired state of academic administration for enhancing proactive learning management for teachers in Sarasas affiliated schools is also at a high level ( $\bar{x} = 4.45$ , S.D. = 0.55). The highest average in this category is in the teaching management area ( $\bar{x} = 4.47$ , S.D. = 0.58), while the lowest average is again in the curriculum development area ( $\bar{x} = 4.43$ , S.D. = 0.51).

The ranking of essential needs for academic administration to enhance proactive learning management for teachers in Sarasas affiliated schools, listed from highest to lowest, includes. 1. Curriculum Development. 2. Teaching Management. 3. Assessment and Evaluation. In summary, the priority of essential needs in academic administration for enhancing proactive learning management for teachers in Sarasas affiliated schools is as follows: 1) Curriculum Development, 2) Teaching Management, and 3) Assessment and Evaluation.

In summary, the essential needs for academic administration to develop proactive learning management for teachers in Sarasas affiliated schools, categorized by the highest priority areas, are as follows

### 1. Curriculum Development

The curriculum development area requires administrators to create a curriculum that aligns with proactive learning management, ensuring flexibility and adaptability based on students' needs and experiences. This approach aims to maximize the benefits of learning for students and emphasizes providing opportunities for learners to choose subjects according to their interests and aptitudes. Additionally, it is important to establish criteria for assessing students' competencies across different educational levels continuously.

### 2. Teaching Management

In the teaching management area, it is essential for administrators to enhance the effectiveness of teachers' instruction by providing ongoing training in proactive learning management. This will ensure that teachers develop expertise and create an optimal learning environment for students. Furthermore, support for teaching resources is crucial, allowing teachers to conduct experiments or simulate learning scenarios in a comprehensive and modern manner.

### 3. Assessment and Evaluation

In the assessment and evaluation area, it is necessary for administrators to encourage teachers to continuously collect and monitor students' academic performance. They should synthesize student data to identify strengths and areas needing improvement, enhance students' analytical thinking and problem-solving skills, and design activities that effectively challenge students in confronting real-world situations.

## *6.2. Step 2: Results of the Study on Academic Administration to Develop Proactive Learning Management for Teachers in Sarasas Schools*

The researcher utilized the findings from the modified Priority Needs Index (PNI) to create an interview guide, ranking the needs from highest to lowest as follows: 1) Teaching Management, 2) Curriculum Development, and 3) Assessment and Evaluation. Based on this information, the researcher developed the interview questions to guide academic administration aimed at enhancing proactive learning management for teachers in Sarasas affiliated schools. The interview participants included experts such as senior administrators, school leaders in the Sarasas network, higher education instructors, and specialists in learning management. The findings are summarized as follows.

### 6.2.1 Curriculum Development

In the area of academic administration related to curriculum development, the focus is on providing opportunities for students to select subjects according to their interests and aptitudes. It was suggested that the development of educational curricula should have clear objectives and be structured to align with current and future changes. Understanding the social and economic contexts of the community can enhance the design of a curriculum that better meets student needs. Encouraging students to choose subjects based on their interests will help develop their potential. The curriculum should emphasize future readiness by incorporating subjects aligned with student and community needs, enabling students to apply their knowledge and skills effectively in daily life.

### 6.2.2 Curriculum Development

Regarding the need for curriculum development that aligns with students' experiences, it was suggested that creating a quality curriculum responsive to students' and society's needs should begin with enhancing teachers' abilities to manage learning in accordance with students' experiences. Support for experiential learning is crucial, and involving teachers in curriculum development will lead to a more responsive curriculum. Utilizing a competency-based curriculum approach to emphasize essential life skills, alongside promoting teamwork and technology use, will increase learning effectiveness.

### 6.2.3 Curriculum Development

In the aspect of developing criteria for assessing students' competencies, it was recommended that curriculum development should rely on studying standard criteria documents, allowing teachers to participate in defining these criteria. The assessment criteria should encompass knowledge, skills, and desirable attributes. An effective evaluation may employ the STEAM Design Process, enabling teachers to observe and record students' abilities in analytical thinking, problem-solving, and creative outputs in real learning contexts.

#### 6.2.4 Teaching Management

For academic administration concerning teaching management and supporting teachers' teaching materials effectively, it was recommended that the development of teaching media and equipment should begin with thorough planning and surveying the needs of both teachers and students. This will help in procuring and providing necessary equipment. Teacher quality is also essential, and expanding the use of PLC (Professional Learning Communities) while utilizing existing media as a shared resource for learning exchange will support the development of new media or the use of technology to maximize teaching and learning effectiveness.

#### 6.2.5 Teaching Management

In the area of academic administration focused on creating a learning environment conducive to student learning, it was suggested that the upkeep of both internal and external classroom environments is crucial. Regular maintenance of necessary equipment is important to ensure a suitable learning atmosphere, considering cleanliness, safety, and a pleasant environment. Teachers and administrators should collaborate in planning effective learning environments, allowing students to learn outside the classroom to enhance their experiences and simulate conducive learning situations. Organizing classrooms in an INNOVATION format with various teaching media, using technology to enhance teaching effectiveness, and creating an enjoyable classroom atmosphere—possibly through the concept of Makerspace—can significantly foster student learning and creativity.

#### 6.2.6 Teaching Management

For academic administration aimed at continuously enhancing teachers' expertise in proactive learning management, it was suggested that teacher development should be an ongoing process through tracking systems and capacity development, such as internal supervision, PLC, and ID Plans, alongside training sessions for knowledge exchange and study visits to model schools. Supporting teachers with incentives to boost motivation, collaboratively designing lessons between teachers and administrators, and providing an accessible online training system will help elevate teaching quality and enhance teachers' experiences.

#### 6.2.7 Assessment and Evaluation

In the area of academic administration to encourage teachers to assess students' ability to handle complex situations effectively, it was suggested that administrators should support teachers in creating simulated scenarios or utilizing real situations for learning. This approach will stimulate students' analytical thinking and systematic problem-solving skills. Utilizing standard and precise assessment criteria and tools, along with collaborative analysis in the PLC process, will aid in improving teachers' evaluation methods. Modernizing and enhancing the efficiency of student assessments by examining tools like the STEAM Design Process will ensure comprehensive measurement of students' problem-solving skills, aligning assessments with the needs of skill development.

#### 6.2.8 Assessment and Evaluation

Regarding the area of academic administration to encourage teachers to analyze learning outcomes for ongoing student development, it was recommended that data analysis for instructional improvement should be a continuous process supported by administrators. Utilizing the results of such analyses not only enhances teaching effectiveness but also opens opportunities for rewards or consequences based on outcomes. Administrators should establish a clear data analysis plan and support collaboration among teachers, parents, and administrators in analyzing and sharing information to foster student development. Raising teachers' awareness of their roles in the data analysis



process and using these insights for student development is essential. Designing precise assessments using basic statistics will facilitate effective instructional improvements. Additionally, applying the STEAM Design Process in analyzing results will support the comprehensive and continuous development of students across various dimensions.

## 7. Discussion of Results

Based on the study of academic administration to develop proactive learning management for teachers in Sarasas affiliated schools, the researcher discusses the findings as follows:

### 7.1. Current Status of Academic Administration for Developing Proactive Learning Management

The current status is rated at a high level. This may be due to the commitment of school administrators in the Sarasas network to elevate the quality of education. They aim to develop all Sarasas schools to meet standards by aligning teaching activities with national development plans and the national curriculum. The goal is to create quality students who contribute positively to society, fostering their development in physical, emotional, social, and intellectual aspects. The focus is on cultivating diverse abilities, creativity, systematic thinking skills, ethics, and effective communication in English for a fulfilling life in a globalized society. The Ministry of Education (2022) emphasizes learner-centered education to help students develop essential skills for future life and work, such as critical thinking, creative problem-solving, and the ability to effectively apply knowledge. This aligns with Prameet Charoenuch (2022), who states that learner-centered and adaptable education helps students develop necessary skills for future life and work. Additionally, Sukanya Chaimchoi (2022) highlights the importance of academic administration in schools for achieving desired learning outcomes through curriculum development, teaching management, and evaluation, ensuring that education meets set standards and effectively responds to students' needs.

#### 7.1.1 Curriculum Development

The overall management status is rated high. This may be attributed to Sarasas schools recognizing the importance of continuous curriculum improvement to meet the needs of learners at all levels. Encouraging students to participate in selecting and tailoring their learning paths should be emphasized more to maximize learning effectiveness in alignment with students' needs and abilities. Effective school curriculum development helps education align with societal conditions and achieve set goals. This is consistent with Pichitpicha Janta (2020), who notes that overall school curriculum development practices are at a high level, partly due to ongoing adjustments in standards, indicators, and content in the basic education core curriculum. Jarunee Kaeian (2014) also states that academic administration plays a crucial role in defining educational directions and goals, and effective curriculum management fosters collaboration among stakeholders to create an education system that genuinely meets the needs and goals of the school.

#### 7.1.2. Teaching Management and Learning Development Processes

The overall condition is rated high. This may be due to the commitment of administrators in the Sarasas network to create a conducive learning environment. High-quality teaching management arises from a focus on all aspects of academic administration, from designing student-centered curricula to developing teachers to use teaching methods that foster confidence and encourage students to be motivated learners. Administrators' focus on creating a learning environment reflects a clear understanding that effective learning involves more than just knowledge transfer from teachers to students; it requires creating an enjoyable, motivating atmosphere for students to learn. This is a crucial factor in developing well-rounded learners in knowledge, skills, and attitudes. Supporting teachers in student-centered teaching demonstrates genuine concern for a learning management process that truly responds to students' needs, fostering their self-development and preparing them for future challenges. This aligns with Wasana Ditsapradab (2021), who emphasizes that quality learning management centered on students enables them to develop fully in thinking skills, analysis, and adaptability to diverse contexts. Additionally, Brickner and Etter (2008) state that learner-centered learning not only helps students develop necessary skills for learning and life

but also promotes self-confidence and adaptability in facing new challenges. Teaching that considers the needs and potential of each student provides opportunities for growth in alignment with personal interests and abilities, leading to deeper and sustainable learning.

### 7.1.3. Evaluation

The overall condition is rated high. This may be due to the commitment of administrators in the Sarasas network to establish a quality assessment system aligned with educational standards. Effective evaluation allows for monitoring the success of teaching and serves as a vital tool for continuous improvement and development in education. Designing suitable assessment tools ensures accurate evaluation covering all aspects, and utilizing assessment data to refine teaching management and curriculum development helps education meet students' needs and potential. Transparent and fair assessments build trust in the educational process and provide specific feedback for continuous self-improvement, enabling teachers to clearly identify individual strengths and areas needing development. This is consistent with Thanatda Khunsuk (2022), who states that effective evaluation must serve as a tool for educational improvement in measuring knowledge and skills, as well as providing specific feedback to support continuous self-development.

## 7.2. Study Results on Administrative Strategies for Developing Proactive Learning Management for Teachers in Sarasas Schools

The researcher can discuss the results in various areas as follows. Curriculum Development: There are effective strategies for developing curricula that can meet learners' needs. This begins with establishing a committee of experts, administrators, and teachers to create the curriculum. Careful planning is the essential first step, leading to the appointment of a responsible working group that aligns with the school's goals. Collaborative Professional Learning Communities (PLC) allow for the exchange of ideas and drafting guidelines, utilizing SWOT Analysis to assess the school's context, identifying strengths, weaknesses, opportunities, and threats. Once results are obtained, guidelines for curriculum development should align with educational laws, the school's vision, and goals, incorporating local culture and arts into teaching. Research processes may be employed to enhance teaching effectiveness and allow for systematic monitoring of results, consistent with the research by Phichitcha Janta, which emphasizes that curriculum development is a critical process for school improvement. This should involve planning meetings and establishing working groups, including curriculum development committees and management teams comprised of educational leaders, heads of academic departments, teachers across all subjects, and school committee members. Conducting SWOT analysis of the school's context and organizing parent meetings each semester is essential to raise awareness and accountability among parents and the community in managing the school's curriculum. The curriculum should be diverse and responsive to community needs, as noted by Anusorn Nampradit (2023), stating that school administrators should adopt management principles that vary depending on cultural contexts and situations. Importantly, the management structure and school policies must facilitate smooth operations, distributing tasks to share work experiences while consulting all stakeholders, particularly on significant issues such as curriculum quality and development policies. All parties should be informed and involved in decision-making, promoting and supporting teacher development through close observation and mentoring to reflect sustainable practices. This aligns with Kwan Khao Chumketsakulkij (2017), who asserted that managing a school curriculum is vital, involving at least one parent meeting per semester to foster community involvement in managing learning across all eight learning areas. Furthermore, incorporating project-based learning for 1-3 hours per week represents an appropriate and feasible adjustment. Collaboration among administrators, teachers, and staff in curriculum development enhances clarity and provides concrete direction in learning management. The participation of all parties in evaluation contributes to effective curriculum development and educational management that meets students' needs.

Teaching Management and Learning Development Processes: Strategies for teaching management emphasize the learner's role, beginning with understanding each learner's needs, interests, and abilities. Teachers must adjust their teaching methods and activities to suit each group of learners, encouraging active participation through various motivating activities such as project-based learning, group work, or integrating technology into teaching. Creating a classroom atmosphere that fosters confidence in sharing opinions, using questioning techniques to stimulate

thinking, and providing opportunities for learners to explore and seek knowledge independently enhances engagement and critical thinking skills. This learner-centered approach also includes providing feedback and assessments that align with individual learner needs and progress, enabling students to develop fully according to their potential. This is supported by Anusith Phanklam and colleagues (2017), who stated that learner-centered teaching must consider creating learning experiences that meet students' needs and interests. Learning designs should allow full student participation in inquiry and problem-solving while using media and technology to support diverse learning styles, thereby fostering analytical skills and lifelong learning.

The development of measurement and evaluation in education is crucial for enhancing the quality of teaching and learning. Tools must be designed to cover all aspects of learning and align with educational standards. Evaluation should be conducted continuously and diversely to reflect progress and assist teachers in improving their instruction. Information from assessments should be utilized for curriculum development and to respond to students' needs. Maintaining transparency and providing clear feedback will build trust, and developing teachers' assessment capabilities will enhance the effectiveness of teaching and learning management. This is consistent with Pongsak Pakamas and Darunee Panjaratanakorn (2023), who stated that academic performance assessment should be designed to encompass all learning objectives by using tools that can effectively evaluate students' understanding and abilities. The assessment must cover knowledge, skills, and critical thinking to obtain accurate information regarding students' progress. The design of assessments should be varied, such as tests, observations, and project evaluations, to reflect comprehensive learning outcomes and support long-term learning processes. It should encompass the learning objectives, using tools that can accurately assess students' understanding and capabilities. Questionnaires or interviews should be used to evaluate students' satisfaction and commitment to learning. The information obtained from assessments should be utilized to improve teaching methods and learning activities to enhance effectiveness and respond to students' needs. Providing students with opportunities to express their opinions and reflect on their learning experiences helps foster the development of more effective learning methods. These approaches ensure that evaluations effectively contribute to the development of teaching and learning and genuinely respond to students' needs.

## **8. Recommendations**

Based on the study of administrative strategies for developing proactive learning management for teachers in Sarasas Schools, the following suggestions are made for applying the research results:

1. The research findings indicate that managing curriculum development according to learning plans, allowing learners to choose based on their strengths and interests, has the lowest average score. Therefore, school administrators should promote and develop themselves in curriculum development to gain knowledge and expertise in seeing the overall picture of curriculum management. This is essential for creating a vision in school administration that effectively aligns with the diverse groups of learners.
2. The research shows that strategies for developing proactive learning management for teachers exhibit variety across different areas. There should be clear policies regarding planning for development in each area, setting criteria for successful development, and continuous support systems for monitoring and evaluation.
3. Teachers should receive continuous development and enhancement of proactive learning management across various aspects.

## **9. Suggestions for Future Research**

1. Future studies should investigate the factors that contribute to the success of promoting teachers' capabilities in proactive learning management by utilizing classroom studies through professional learning communities.
2. There should be further qualitative studies on the academic administration of educational institutions to facilitate ongoing research and development of proactive learning.

3. Research should be conducted periodically to assess teachers' proactive learning management to provide systematic development guidance, identifying strengths and weaknesses.
4. Factors influencing teachers' proactive learning management should be studied.

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# The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools

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## Abstract

The objectives of this research were 1) To study the use of Information technology for school administration under Sarasas affiliated area 3 schools. 2) To compare the use of Information technology for school administration under Sarasas affiliated area 3 schools, classified by educational qualifications, tenure status, school size, and varying work experiences; and 3) To examine approaches to the use of Information technology for school administration under Sarasas affiliated area 3 schools. The research method is divided into two steps Step 1 Study and compare the use of Information technology for school administration. The sample group includes 251 administrators and teachers from within Sarasas affiliated area 3 schools, selected through stratified random sampling based on the proportion of teachers in each school. The research instrument is a questionnaire on the use of Information technology for school administration, created by the researcher, and designed using a 5-level rating scale. Data are analyzed using the mean and standard deviation. Step 2 Study the approach to the use of Information technology for school administration under Sarasas affiliated area 3 schools. The informants include three experts selected by purposive sampling. The tools used for data collection include an interview form on the use of Information technology for school administration under Sarasas affiliated area 3 schools. Data were analyzed using content analysis. The research results found that: 1) the use of Information technology for school administration under Sarasas affiliated area 3 schools was at a high level overall. When considering each aspect, the area with the highest average score was general administration, also at a high level. 2) Administrators and teachers with different educational qualifications used information technology in administration differently, as classified by the educational qualification variable. 3) The results also suggest that in terms of academic administration, ICT and Hybrid Learning should be utilized to develop mobile classrooms, digital media, assessment methods, and to enhance parental participation. In budget administration, funds should be allocated for learning equipment, disease prevention, software and internet investment, and using Big Data to improve learning. For personnel administration, online work systems should be adopted, teachers' digital skills should be developed, Hybrid Learning should be promoted, and leadership should follow the Super Coach model. In general administration, online systems should be used to track students, develop websites, and create digital media archives. Additionally, equipment for online teaching should be allocated.

**Keywords:** The Use of Information Technology, School Administration, Sarasas Affiliated Area 3 Schools

## 1. Introduction

In today's rapidly evolving world of technology and communication, human behavior has shifted from an analog to a digital era. Information exchange occurs swiftly, making the 21st century an age of global society and economy that demands adaptation. Individuals must continuously develop and engage in lifelong learning to be prepared for changes and challenges brought by innovations and digital technologies (Office of the Education Council, 2017). Thailand has prioritized the use of technology in education, incorporating it into the core curriculum and promoting STEM education. Additionally, the country has implemented school-based management to enhance educational quality, aligning with global changes (Office of the Education Council, 2021).

Innovation in school management is essential for educational development, and successful strategies from countries like Singapore, Japan, and South Korea should be applied. These strategies include increasing autonomy in school management and integrating technology into teaching and administration. Educational laws and policies regarding the use of information technology (IT) in school management aim to enhance learning and administrative efficiency, reduce teachers' paperwork, and streamline complex processes (Ministry of Education, 2011). Effective implementation of these innovations depends on the collaboration between administrators, teachers, and educational personnel, leading to optimal outcomes (Usman Leesannahmad, 2017). Research on the use of IT in school management is crucial. Sarasas schools have adapted by utilizing technology to respond to the digital world's changes, improving efficiency and flexibility in school operations (Sarasas School Journal, 2017). Therefore, this research focuses on studying the use of IT in school management within Sarasas affiliated area 3 schools, aiming to assess the level of IT usage and develop guidelines for future improvements. Effective use of IT by school administrators leads to the progress of educational institutions, aligning them with the learning society of the modern age, benefitting both policy and practice in the administration of schools.

### 1.1. Research Objectives

1. To study The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools.
2. To compare The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools, differences in educational qualifications, job positions, school sizes, and work experience.
3. To explore guidelines for The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools

### 1.2. Research Hypotheses

In this study, the researcher formulated the following research hypotheses

1. The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools., is at a moderate level.
2. The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools, varies significantly based on differences in educational qualifications, job positions, school sizes, and work experience.

### Literature Review

The research on The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools, includes an examination of relevant documents, theories, and studies as follows:

Sitthichai Seemi (2023) defines school management as a collaborative process among key individuals involved in education management, aimed at enhancing the quality of schools. This is achieved through the efficient and optimal use of available resources to foster the development of students in knowledge, skills, attitudes, values, ethics, and morality. This is facilitated through organizational structure, management practices, support for operations, and ongoing process improvement to meet established educational goals.

Busara Bunta-la (2020) asserts that information technology is a crucial tool for organizational operations and educational management today. The benefits of information technology allow for the rapid and high-quality

processing of daily data into accurate and relevant information for educational administrators. Additionally, it provides organizations with a competitive advantage in both education and business sectors. The utilization of information technology should be complemented by other resources to achieve maximum efficiency. Furthermore, information technology plays a significant role in national development across various sectors, including politics, governance, society, public health, transportation, and security, particularly in education, where it enhances knowledge development and educational management.

Jitjaroon Songwiya (2018) states that school management encompasses all operations within a school to align with educational objectives or curriculum goals. This includes ensuring that students maintain good health, possess moral integrity, become responsible citizens, and apply their acquired knowledge for participation in the economy and social development. According to the National Education Act of 1999 and its amendment (No. 2) of 2002, the act emphasizes decentralizing management and decision-making to operational units, namely schools and educational service areas. Central management is tasked with setting policies, planning, budgeting, and assessing educational quality and standards, covering four key areas: 1) Academic Management, 2) Budget and Financial Management, 3) Personnel Management, and 4) General Administration.

In summary, the application of information technology in school management refers to the integration of information and communication technology, which encompasses computer technology and interconnected telecommunication networks, aimed at enhancing efficiency and speed in analyzing, processing, and storing data. This facilitates timely utilization for effective school management, categorized into four areas: 1) Academic Management, 2) Budget Management, 3) Personnel Management, and 4) General Administration.

## 2. Research Methodology

Step 1: Study and Compare The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools, Categorized by Educational Qualification, Position Status, School Size, and Varying Work Experience

Population and Sample Used in the Research

1. Population
  - The population for this research includes administrators and teachers from Sarasas affiliated area 3 schools, totaling 721 individuals.
2. Sample
  - The sample size was determined using G\*Power version 3.1.9.2. The statistical test was set to Correlation Bivariate Normal Model, with a power analysis of 0.99 and a significance level of 0.01. The effect size was set to medium (0.3) based on Cohen (1977) as cited in Niphathorn Sanitlue, Watcharaporn Satrphet, and Yada Napaarak (2018), resulting in a sample size of 251 individuals.

### 2.1. Research Instruments

The data collection tool used in this research was a questionnaire developed by the researcher, based on a review of academic documents and related research. The questionnaire consists of two parts:

1. Part 1: Respondent Demographics
  - This part includes questions in a checklist format regarding the respondent's status.
2. Part 2: Use of Information Technology in Educational Administration
  - This section contains 22 questions regarding The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools, using a 5-point Likert scale:
    - 5: Very High Usage
    - 4: High Usage
    - 3: Moderate Usage
    - 2: Low Usage
    - 1: Very Low Usage



## 2.2. Development of Research Instruments

The development process of the data collection instrument was as follows:

1. A review of theoretical concepts and frameworks relevant to The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools
2. Creation of the questionnaire addressing The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools, divided into two sections:
  - Section 1: Demographics of respondents, including position status, school size, and work experience in a checklist format.
  - Section 2: Aspects of using information technology in educational administration across four areas:
    1. Academic Management
    2. Budget Management
    3. Personnel Management
    4. General Administration
    5. This section utilizes a 5-point Likert scale (Very High, High, Moderate, Low, Very Low).
3. The completed questionnaire was presented to the advisor for review and feedback for improvements.
4. The revised questionnaire was then presented to three experts selected based on their knowledge, experience, and expertise in educational administration and technology. The experts assessed content validity and the appropriateness of the language used by calculating the Index of Item Objective Congruency (IOC).
5. The finalized questionnaire underwent a trial run (Try-Out) with teachers outside the sample group.
6. Reliability analysis was conducted using Cronbach's alpha coefficient method (Cronbach, 1990:202-204), yielding an IOC value of 0.97.
7. The finalized questionnaire was used to collect data from the sample group.

## 2.3. Data Collection

The data collection for this research was conducted as follows:

1. The researcher coordinated with the Graduate School, Faculty of Education and Liberal Arts, Suvarnabhumi Institute of Technology, to obtain permission to collect data for the research.
2. The researcher distributed the questionnaire along with a letter requesting cooperation in the research to administrators and teachers in Sarasas affiliated area 3 schools Follow-up was conducted for any outstanding questionnaires.
3. The researcher reviewed the returned questionnaires for data verification.
4. The collected questionnaires were analyzed for data.

## 2.4. Data Analysis

The researcher analyzed the data in the following manner:

1. All returned questionnaires were checked for accuracy and completeness, and those deemed complete were further analyzed.
2. Selected questionnaires were scored according to predetermined criteria.
3. Data analysis was performed using software, covering:
  - 3.1 General information about respondents, including position status, school size, and work experience, analyzed through frequency distribution and percentage calculation.
  - 3.2 The level of use of information technology in educational administration was analyzed using mean ( $\bar{X}$ ) and standard deviation (S.D.).
  - 3.3 Comparison of information technology usage in educational administration categorized by position status, school size, and work experience. If differences were detected, pairwise comparisons were conducted using Scheffé's method.

### 2.5. Statistical Analysis

The statistics used for data analysis included:

1. Quality Assessment of the Instrument: 1.1 Calculation of the Index of Item - Objective Congruence (IOC). 1.2 Reliability assessment of the questionnaire using Cronbach's alpha coefficient (Cronbach, 1990:202-204).
2. Data Analysis Statistics: 2.1 Percentage calculations. 2.2 Mean calculations. 2.3 Standard deviation calculations.
3. Hypothesis Testing Statistics: 3.1 Analysis of the level of information technology usage in educational administration, using mean ( $\bar{X}$ ) and standard deviation (S.D.). 3.2 Comparison of information technology usage in educational administration categorized by position status, school size, and work experience, using t-tests and one-way ANOVA. In cases of differences, Scheffé's method was used for pairwise comparison.

**Step 2:** Study Guidelines for The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools

### 2.6. Informants

The informants included three experts selected purposefully (Purposive Sampling) based on the following criteria:

1. Expert in Educational Administration:
  - One senior executive responsible for policy-making in educational administration under Sarasas affiliated area 3 schools, holding a doctoral degree.
2. Educational Administrators:
  - Two educational administrators with at least a master's degree or equivalent, having the position of at least Senior Director or Senior Deputy Director, with a minimum of 5 years of management experience, and expertise in information technology or educational technology.

### 2.7. Data Collection Instruments

For the study of guidelines for The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools, the researcher employed a structured interview format divided into two parts:

1. Part 1: General Information of Interviewees:
  - This part included open-ended questions.
2. Part 2: Guidelines for Using Information Technology:
  - This section addressed four areas:
    1. Academic Management
    2. Budget Management
    3. Personnel Management
    4. General Administration

### 2.8. Development and Quality Assessment of Data Collection Instruments

1. Review of literature on interview principles and question formulation to ensure comprehensive coverage of the content area.
2. Study of relevant documents and research on the use of information technology in educational administration.
3. Establishment of a research framework categorized into four areas for the development of interview questions.
4. Formulation of interview questions based on data obtained from the study of information technology usage in educational administration.
5. The interview questions were refined according to suggestions from the advisor.
6. Finalized interview questions were printed and prepared for data collection.

### 2.9. Data Collection

The researcher conducted data collection as follows:

1. Coordination with the Graduate School, Faculty of Education and Liberal Arts, Suvarnabhumi Institute of Technology, to obtain permission for interviews.
2. Submission of a request letter for cooperation to administrators of schools within Sarasas affiliated area 3 schools
3. The researcher scheduled interviews with selected experts, arranging dates, times, and locations.
4. Conducted interviews based on the predetermined guidelines in the interview format.

### 2.10. Data Analysis

The data obtained from the interviews were organized and summarized through content analysis.

## 3. Research Results

Table 1: The mean and standard deviation of the interpretation and The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools.

		Level of Implementation		Interpretation	Rank
Use of Information Technology		$\bar{x}$	S.D.		
1	Academic Administration	4.42	0.18	High	2
2	Budget Administration	4.25	0.17	High	3
3	Human Resource Administration	4.13	0.13	High	4
4	General Administration	4.61	0.13	High	1
Overall ( $X_{tot}$ )		4.35	0.05	มาก	

From Table 1, it is evident that the overall The Use of Information Technology for School Administration under Sarasas affiliated area 3 schools is at a high level ( $\bar{x} = 4.35$ , S.D. = 0.05). The rankings of the mean values from highest to lowest are as follows: General Administration is at a high level ( $\bar{x} = 4.61$ , S.D. = 0.15), Academic Administration is at a high level ( $\bar{x} = 4.42$ , S.D. = 0.18), Budget Administration is at a high level ( $\bar{x} = 4.25$ , S.D. = 0.17), and Human Resource Administration is at a high level ( $\bar{x} = 4.13$ , S.D. = 0.13).

Table 2: The use of information technology in school administration based on educational qualifications among schools in the Sarasas affiliated area 3 schools

		Bachelor's Degree (n=224)		Postgraduate Degree (n=27)		t	p
Use of Information Technology		$\bar{x}$	S.D.	$\bar{x}$	S.D.		
1	Academic Administration	4.40	0.17	4.64	0.06	-14.60	0.00
2	Budget Administration	4.27	0.17	4.09	0.10	7.74	0.00
3	Human Resource Administration	4.13	0.13	4.08	0.10	1.99	0.01
4	General Administration	4.58	0.14	4.83	0.00	-25.33	0.00

Overall ( $X_{tot}$ )	4.34	0.05	4.41	0.04	-5.85	0.00
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\*p < .05

From Table 2, it is found that the use of information technology in school administration among schools in the Sarasas affiliated area 3 schools differs significantly based on educational qualifications at the .05 level. Teachers with postgraduate degrees and those with bachelor's degrees showed differences in the use of information technology across all four areas.

Table 3: The use of information technology in school administration based on the position held.

Use of Information Technology	School Administrators (n=50)		Teacher (n=201)		t	p
	$\bar{x}$	S.D.	$\bar{x}$	S.D.		
1 Academic Administration	4.41	0.30	4.43	0.14	-0.46	0.64
2 Budget Administration	4.22	0.20	4.26	0.16	-1.15	0.24
3 Human Resource Administration	4.13	0.19	4.12	0.11	0.23	0.81
4 General Administration	4.69	0.16	4.59	0.14	3.72	0.00
Overall ( $X_{tot}$ )	4.36	0.07	4.35	0.05	1.02	0.30

\*p < .05

From Table 3, it is found that the overall use of information technology in school administration does not significantly differ based on the position held. However, when considering specific areas, school administrators and teachers showed a significant difference in the use of information technology in General Administration.

Table 4: The use of information technology in school administration based on school size.

Use of Information Technology	Source of Variation	df	ss	ms	f	p
1 Academic Administration	Between Groups	2	2.46	1.23	51.22	0.00
	Within Groups	248	5.97	0.02		
	Total	250	8.44			
2 Budget Administration	Between Groups	2	1.30	0.65	25.47	0.00
	Within Groups	248	6.34	0.02		
	Total	250	7.64			
3 Human Resource Administration	Between Groups	2	0.49	0.24	14.61	0.00
	Within Groups	248	4.18	0.01		
	Total	250	4.67			
4 General Administration	Between Groups	2	1.77	0.88	49.20	0.00
	Within Groups	248	4.47	0.01		
	Total	250	6.25			
Overall	Between Groups	2	0.09	0.04	16.05	0.00
	Within Groups	248	0.73	0.00		
	Total	250	0.83			

\*p < .05

From Table 4, it is found that the use of information technology in school administration varies significantly based on school size at the .05 level.

Table 5: The use of information technology in school administration based on work experience.

Use of Information Technology	Source of Variation	df	ss	ms	f	p
1 Academic Administration	Between Groups	2	0.65	0.32	10.36	0.00
	Within Groups	248	7.79	0.03		
	Total	250	8.44			
2 Budget Administration	Between Groups	2	0.65	0.32	11.59	0.00
	Within Groups	248	6.99	0.02		
	Total	250	7.64			
3 Human Resource Administration	Between Groups	2	0.16	0.08	4.59	0.01
	Within Groups	248	4.50	0.01		
	Total	250	4.67			
4 General Administration	Between Groups	2	0.80	0.40	18.27	0.00
	Within Groups	248	5.45	0.02		
	Total	250	6.25			
Overall	Between Groups	2	0.22	0.11	3.32	0.03
	Within Groups	248	0.80	0.03		
	Total	250	0.83			

\*p &lt; .05

From Table 5, it was found that the use of information technology in the administration of educational institutions within Sarasas affiliated area 3, categorized by work experience, shows statistically significant differences overall and in each dimension at the .05 level.

#### 4. Data Analysis Results

The analysis of data on the use of information technology in the administration of educational institutions within the Sarasas network in Education Zone 3 was synthesized from in-depth interviews with three experts. The researcher employed content analysis techniques, which yielded the following conclusions:

1. **Academic Administration:** It is recommended to utilize ICT and Hybrid Learning, develop mobile classrooms, digital media, assessment tools, and enhance parental involvement.
2. **Budget Administration:** Allocate budgets for educational equipment, disease prevention measures, invest in software and internet access, and leverage Big Data to improve learning outcomes.
3. **Human Resource Administration:** It is necessary to adjust online systems, develop teachers' digital skills, promote Hybrid Learning, and adopt the role of a Super Coach.
4. **General Administration:** Implement online systems to monitor students, develop websites and digital resource repositories, and allocate equipment for online teaching.

#### 5. Discussion of Research Findings

The research findings on the opinions of administrators and teachers from the Sarasas network in Education Zone 3 highlight several key points for discussion:

The use of information technology in the administration of educational institutions within the Sarasas network in Education Zone 3 was found to be at a high level, both overall and in each area, particularly in four main aspects: academic administration, budget administration, human resource administration, and general administration. A significant factor contributing to the widespread use of technology is the COVID-19 pandemic, which prompted all organizations to adapt and effectively implement technology in their operations. These findings align with the research conducted by Kritiphatkorn Siripathnitphokin (2021), which indicated a high level of technology use in educational administration across all four areas during the new normal era.

##### 5.1. Academic Administration

In the Sarasas network within Education Zone 3, the use of information technology in academic administration was reported at a high level. The top three applications are as follows:

1. Utilization of technology and capable programs for the development of school curricula.
2. Use of technology for the development of media, innovations, and learning resources.
3. Leveraging technology to foster collaboration in academic development with other educational institutions.

Conversely, the least applied area was the use of technology for research aimed at improving educational quality and the development of internal quality assurance systems within educational institutions. This finding is consistent with the study conducted by Phichayanee Kahlong (2017), which found that the use of information technology for academic administration in basic education institutions under the Chaiyaphum Primary Educational Service Area Office was also high.

### *5.2. Budget Administration*

The use of information technology for budget administration in the Sarasas network within Education Zone 3 was reported at a high level, with the top three applications being:

1. Employing technology or ready-made programs for budget allocation.
2. Monitoring, evaluating, and reporting on the use of funds and the performance of financial management through technology or ready-made programs.
3. Utilizing technology or ready-made programs for accounting and management of materials and assets.

The least applied area was the use of technology or ready-made programs for managing accounts, materials, and assets. This information corresponds with the research of Worawut Lamjan (2020), which found that administrators of private schools in the Phatthalung Primary Educational Service Area also utilized information technology for budget administration at a high level, highlighting the significant role of technology in enhancing efficiency and transparency in budget management.

### *5.3. Human Resource Administration*

In the Sarasas network within Education Zone 3, the use of information technology for human resource administration was also reported at a high level, with the top three applications being:

1. Use of technology for defining positions, recruitment, and appointments.
2. Implementation of technology to enhance the efficiency of administrative operations.
3. Utilizing technology for workforce planning.

The least applied area was the use of technology for storing and maintaining personnel discipline data. This information aligns with the study conducted by Phakkorn Boonpan (2020), which found that the use of information technology for administrative functions in educational institutions under the Bueng Kan Primary Educational Service Area Office was similarly high, indicating the effectiveness of technology in supporting human resource management in educational settings.

### *5.4. General Administration*

In the Sarasas network within Education Zone 3, the use of information technology for general administration was reported at a high level, with the top three applications being:

1. Use of technology or programs for administrative operations.
2. Development of information network systems through technology or programs.
3. Coordination and development of educational networks through technology to promote student affairs, educational publicity, and resource mobilization for education.

The least applied area was the use of technology for organizational development management, site organization, and environmental conditions. This information corresponds with the research of Usman Leesmahamat (2017), which found that the use of technology in general administration within secondary schools in the Secondary Educational Service Area 16 was also high.

### *5.5. Comparison of Information Technology Use in Educational Administration*

The study found significant statistical differences at the .05 level in the use of information technology in educational administration among administrators and teachers in the Sarasas network within Education Zone 3, categorized by educational qualifications, position status, school size, and work experience.

1. **Educational Qualifications:** Administrators and teachers with varying educational qualifications showed significant differences in the use of information technology at the .05 level. Higher educational qualifications likely enhance the ability to utilize technology more effectively in administration, aligning with the research of Usman Leesamhamat (2017), which found clear differences in technology use in administration among secondary schools based on educational qualifications.
2. **Position Status:** Administrators and teachers with different position statuses exhibited no significant differences in the overall use of information technology for educational administration. However, when considering individual aspects, significant differences were observed in general administration at the .05 level. This finding corresponds with the study by Kanokwan Changlom (2016), which identified significant differences in technology use in general administration among various position holders in local administrative organizations in Pathum Thani province.
3. **School Size:** Administrators and teachers in schools of different sizes demonstrated significant differences in the use of information technology at the .05 level, with larger schools being better equipped with technology compared to medium-sized schools. This finding is consistent with the research of Jarunan Phiewphang (2021), which found variations in technology use according to school size in the Nakhon Phanom educational service area.
4. **Work Experience:** Additionally, administrators and teachers with differing levels of experience displayed significant differences in their use of technology for administration, with more experienced individuals demonstrating better effectiveness in utilizing technology.

#### *5.6. Interviews on the Use of Information Technology in Educational Administration*

The results from in-depth interviews with three administrators from the Sarasas network in Education Zone 3 revealed the following conclusions based on the interview questions:

1. **Recommendations for Academic Administration:** It is suggested to use ICT and Hybrid Learning, develop mobile classrooms, digital media, assessment tools, and enhance parental involvement.
2. **Recommendations for Budget Administration:** Allocate budgets for educational equipment, disease prevention measures, invest in software and internet access, and leverage Big Data for improved learning outcomes.
3. **Recommendations for Human Resource Administration:** Adjust online systems, develop teachers' digital skills, promote Hybrid Learning, and adopt the role of a Super Coach.
4. **Recommendations for General Administration:** Implement online systems for student monitoring, develop websites and digital resource repositories, and allocate equipment for online teaching.

#### **6. Recommendations from the Research**

1. Educational institutions within the Sarasas network in Education Zone 3 should utilize technology or capable programs for research aimed at improving educational quality and internal quality assurance systems.
2. Educational administrators should adopt technology or ready-made programs for accounting, material management, and asset administration.
3. Schools should implement technology or tools for storing disciplinary records and maintaining discipline.
4. Medium-sized schools within the Sarasas network in Education Zone 3, which exhibit lower usage of information technology, should increase their adoption of technology.

#### **7. Suggestions for Future Research**

1. Future studies should evaluate the effectiveness of information technology usage in educational administration.

2. It is recommended to investigate factors influencing the utilization of information technology in educational administration.

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# Parental Occupational Factors and Academic Qualifications as Correlates of Students' Examination Integrity in Secondary Schools in South-South Nigeria

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## Abstract

This study focused on establishing the relationship among parental occupational factors, academic qualifications and students' examination integrity in secondary schools in South-South Nigeria. The study is posited on the premise of the Social Learning Theory which links education to environmental factors and role models such as parents. Survey research design was used in the study. The population of the study consisted of 283,089 final year secondary school students in the 6 States of the South-South geopolitical zone of Nigeria (Akwa-Ibom, Bayelsa, Cross-Rivers, Delta, Edo and Rivers States). The Multistage proportionate sampling technique was used to select a representative sample size of 3000 for the study. Data was collected with the aid of a Students' Examination Integrity Measurement Instrument (SEIMI) developed by the researchers. Pearson Product Moment Correlation Coefficient ( $r$ ) and multiple regression were used for data analysis as appropriate for each research question and hypothesis. Findings indicated that there is significant relationship between parental occupations and students' examination integrity. Fathers and Mothers' occupations were significantly correlated to the students' examination integrity but Mothers' occupations were more significant. It appears that students whose parents are in highly ethical occupations such as Military, Civil Service and corporate organizations have better examination integrity than those whose parents are unemployed or self-employed. Though there was no significant relationship between parental academic qualifications and students' examination integrity but Age was a significant moderator of the relationship among parental occupational factors, academic qualifications and students' examination integrity.

**Keywords:** Parental Occupations, Academic Qualifications, Students, Examination Integrity, Age, Gender

## 1. Introduction

Examination integrity is something that should be looked upon by administrators and examiners since it is crucial to the attainment of the goals of education and schooling. The understanding of how parental factors relate with examination integrity is very essential to educators, parents and school administrators in secondary schools. Dishonesty has been seen to transverse all facets of human existence which has hampered efficiency and the cultivation of integrity and transparency in the education system including conduct of examinations (Ossai et al.

2023a). The consequence of examination dishonesty on a nation's educational structures, the hub upon which a nation develops, has been calamitous. Nigeria's examination system and standards have been under attack by academic dishonesty as parents and educators are routinely observed acting suspiciously and compromising their responsibilities towards ensuring integrity of examination procedures. Formative and summative evaluations are routinely handled carelessly. Unfortunately, horrible deeds organised by students who do not take their studies seriously and parents influence teachers to break their integrity for momentary pleasure and financial gain continue to plague schools. There are reported instances of "sex for marks," "missing answer scripts," and "paying bribes to acquire high grades" (Anthony, 2024). Most parents do not want their wards to fail examinations, as such they are ready to do anything (including bribing teachers, hiring "examination mercenaries," among others) to ensure that their children pass examinations. These have attendant consequences such as lack of value for the certifications, manpower development, corruption, anti-social behaviour, loss of peace in society, among others.

Examination integrity can be perceived as the obedience to ethical laws, principles and standards during examination. Igbe et al. (2023) defined examination integrity as a part of academic integrity which calls for honesty, fairness, trustworthiness, respect for examination and responsibility in educational assessment or evaluation. While academic integrity comprised of all other forms of academic honesty, like seminars, thesis writing, carrying out ethical behaviour in the academic environment and ensuring that staff and students exhibit ethical academic behaviour, examination integrity refers to the ethical principles and practices that ensure fairness, honesty, and transparency in the conduct of assessments. This implies that when rules of ethical practices in the conduct of assessment are disregarded, examination dishonesty is perpetuated. It emphasizes the need for students to engage in honest behaviour during tests and examinations, and for institutions to uphold strong standards that prevent malpractice and promote a trustworthy educational environment. In conserving examination integrity in secondary schools, the administrators and management have to ensure that valid and reliable assessments are carried out and also embrace the culture of trust and academic excellence. However, examination integrity could be influenced by other factors outside the classroom which could include home background and parental factors that comprises of parental occupational factors and parental academic qualifications which might shape the student orientation and behaviour in integrating or adhering to honesty while taking examination or other forms of test.

Parental occupational factors are the various employments that parents are engaged. Parental occupational factors might play an important role in the life of a student as regards examination integrity and also help in shaping the student's values and attitudes towards education. Parents are seen as the first teachers of every child as well as role models. These children get the first educational values and socialization skills from the parents and family (Ajila & Olitola 2020). Parental occupation can be of different types ranging from teaching to trading among others. A parent that is a teacher or government employee may have more awareness of the value of examination integrity unlike a parent that is a trader. On the other hand, an influential parent like a governor, director, oil magnate, among others might engender situations that will create fear in the minds of examination officials to compromise examination integrity. In addition, an illiterate parent might not know the importance of examination integrity, as such, might negatively influence teachers or examination officials towards allowing their wards to get involved in examination malpractices. Parents whose occupation takes them away from home might not instill in their children the importance of examination integrity, thereby creating room for them to do whatever they can to succeed in examinations.

Parent academic qualification might also have a relationship with their children's examination honesty. A parent who has higher academic qualification, has passed through classroom situation and is aware of different forms of examination dishonesty and their consequences may be more inclined to instill in their children examination honesty. Bhandari (2022) submitted that parental occupation and educational qualification have significant relationships with their children's academic achievements. A parent who does not have a college degree but have good paying jobs might likely believe that a college degree does not worth the cost and stress because they do not place high value on education and as such, might not encourage academic integrity. On the other hand, a parent that is well-educated will provide and encourage their children in the pursuit of academic excellence and academic integrity (Lamar University, 2021). This implies, parental academic qualification might positively or negatively influence academic integrity. While parents are crucial to the success of students' learning journey, they can go beyond the point of acceptable support to where they do the homework assignment, projects, pay mercenaries to

supply answers or write examinations for their children which breaches academic integrity. Wei et al (2019) posited that such parental involvement and engagement is more prevalent in primary and secondary schools. Khan and Mulani (2020) highlighted how assessments sent to be completed at home garnered more contributions from parents while those completed at school were better tools to assess students' learning.

This research, therefore, seeks to investigate the relationship between parental occupational factors and academic qualifications and their students' examination integrity in secondary schools in south-south Nigeria, in order to curb students' unethical conduct and behaviour during examinations

## 2. Research Questions and Hypotheses

### 2.1. Research Questions

The study will answer the following research questions:

- I. What is the relationship between parental occupational factors and students' examination integrity?
- II. Is there a relationship between parental academic qualifications and students' examination integrity?
- III. Does the age of the students moderate the relationship among parental occupational factors, academic qualifications and students' examination integrity?
- IV. Does the gender of the students moderate the relationship among parental occupational factors, academic qualifications and students' examination integrity?

### 2.2. Hypotheses

- i. There is no significant relationship between parental occupational factors and students' examination integrity;
- ii. There is no significant relationship between parental academic qualifications and students' examination integrity;
- iii. There is no significant moderating impact of age of the students on the relationship among parental occupational factors, academic qualifications and students' examination integrity;
- iv. There is no significant moderating impact of gender of the students on the relationship among parental occupational factors, academic qualifications and students' examination integrity;

## 3. Literature Review

Parental influence plays an important role in shaping students' academic behaviour and integrity in schools. This review focusses on the relationship between parental occupational factors, academic qualification and students' examination integrity. Parental occupational studies have shown that parent factors, such as, educational level and occupation, influence students' academic behaviour (Baker & Leicht, 2019; Brown & Adams, 2017)). Parents with higher education levels and professional occupations tend to emphasize academic integrity. Research have also revealed that parental academic qualification is a significant predictor of students' academic performance and integrity (Martin & Marsh, 2020; Mazar & Ariely, 2017). Parents with higher academic qualifications stress higher expectations for their wards' academic achievement and integrity in examinations.

Examination integrity refers to adhering to ethical principles and maintaining honesty during the assessment process. It involves students upholding standards of honesty by not engaging in cheating, plagiarism, or misconduct during examinations. In other words, examination integrity is the ethical and honest behaviour of students during examinations, ensuring that their work is authentic and free from cheating, plagiarism, or any other forms of academic dishonesty. Maintaining examination integrity is crucial for ensuring that the results of assessments accurately reflect students' true knowledge and abilities. Thus, integrity is essential not only for the credibility of the educational institution but also for the validity of the qualifications that students receive, which can have long-lasting impacts on their future opportunities. According to McCabe et al. (2014), examination integrity is foundational to the academic process, as it ensures fairness in assessing and evaluating students. It helps maintain a level playing field where all students are evaluated based on their own merit without any unfair

advantage. When students maintain integrity during examinations, they contribute to a culture of trust within the educational environment, which is vital for the development of ethical professionals in the future. Academic dishonesty, including cheating, plagiarism, and other forms of unethical behavior during examinations, can have severe consequences for students and educational institutions. For students, the immediate consequences may include disciplinary actions such as failing the exam, suspension, or expulsion. However, the long-term consequences can be more damaging, affecting their reputation, career prospects, and ethical development. Whitley and Keith-Spiegel (2014) highlighted that academic dishonesty undermines education's value and qualifications' credibility. When students engage in dishonest practices, they not only compromise their learning but also devalue the achievements of others who have worked hard to succeed. Moreover, academic dishonesty can erode trust within the educational institution, leading to a diminished reputation and potentially impacting the institution's ability to attract students and faculty.

Several factors influence students' adherence to examination integrity, including personal, familial, and institutional factors. Rettinger and Kramer (2014) discuss that individual characteristics such as a student's moral development, self-efficacy, and motivation play a significant role in determining their likelihood of maintaining integrity during exams. Students with strong ethical values and high self-confidence are more likely to resist the temptation to cheat. Familial influences, particularly parental occupation and academic qualifications, are crucial. Parents who emphasize the importance of honesty and ethical behaviour are more likely to raise children who value examination integrity. Additionally, institutional factors such as the school's academic policies, the presence of honour codes, and the enforcement of disciplinary measures can encourage or discourage academic integrity among students. Schools that actively promote a culture of integrity and provide clear guidelines on acceptable behaviour are likelier to see higher levels of examination integrity among their students. Parental influence is a crucial determinant of students' behaviour, including their academic integrity. Parents shape their children's attitudes, beliefs, and behaviours through direct guidance and the values they model at home. The impact of parental influence on student's behaviour has been widely studied, particularly in education, where parental involvement can significantly affect a child's approach to learning and ethical conduct. Parental guidance refers to parents' active role in steering their children's development, including their educational journey and moral compass. Parents who emphasize the importance of honesty and hard work are likelier to raise children who value these traits in their academic endeavours. According to García and Weiss (2019), parental involvement in education, including reinforcing ethical values, positively correlates with students' academic performance and integrity. The study highlights that when parents are engaged in their children's education, mainly through setting expectations for honest behavior, students are less likely to engage in academic dishonesty. Another study by Rosen et al. (2021) explored the impact of parental values on children's academic integrity. The research found that children whose parents consistently emphasized the importance of integrity and ethical behaviour were more likely to resist temptations to cheat during exams. The study underscores the critical role of parental values in shaping a child's moral framework, which influences their academic behaviour.

Parental occupational factors refer to the type of employment or profession parents engage in and how this influences their children's attitudes and behaviours, particularly concerning academic integrity. The nature of a parent's occupation can shape the values and expectations they impart to their children, including the importance of honesty and ethical conduct in academic settings. Parents in professional occupations are likely to instill values of honesty and ethical behavior due to the high moral standards of their professions. Brown and Adams (2017) found that students whose parents held professional roles exhibited higher levels of academic integrity, as these parents often emphasize the importance of ethical conduct in all areas of life. Impact on academic integrity can vary depending on the specific nature of the job and the ethical standards observed. Harris and Thompson (2020) found that children of parents in administrative roles generally had mixed attitudes towards academic integrity, influenced by the level of ethical behaviour exhibited by the parents in their professional roles.

Research has shown that parental involvement in professional occupations often correlates with a higher emphasis on academic integrity in their children. Adams and Black (2019) found that students whose parents held professional positions were generally more aware of and committed to academic honesty. This was attributed to the ethical standards and attention to detail required in professional roles, which parents may transfer to their children. Conversely, Smith and Johnson (2020) observed that children of parents in non-professional occupations,

particularly those involving lower levels of formal education or less ethical oversight, might receive less emphasis on the importance of academic integrity. These parents might focus more on practical aspects of work than ethical considerations, which could translate to a more lenient attitude towards academic dishonesty among their children. The present study will verify these observations among secondary school students in south-south Nigeria where such studies have not been replicated.

The present study is posited on the premise of the Social Learning Theory, which emphasizes that learning occurs within a social context through observation, imitation, and modeling. This theory states that individuals, especially children, learn behaviours, attitudes, and values by observing the actions of others, particularly those they view as role models. In the context of academic integrity, parents serve as the primary role models whose behaviours significantly influence their children's ethical development and scholarly conduct. According to Social Learning Theory (Bandura (1977), children are likely to adopt the behaviours and values they observe in their parents. When parents consistently demonstrate ethical behaviour, such as honesty, fairness, and responsibility, children are more likely to internalize these values and apply them to their academic pursuits. Bandura (1977) argued that observational learning involves attention, retention, reproduction, and motivation, which are crucial in children learning from their parents. For instance, Gottfried et al. (2016) found that parents who displayed high levels of integrity in their professional and personal lives raised children more likely to value academic honesty. The study suggested that children who observed their parents' commitment to ethical principles were more likely to reject cheating and other forms of academic dishonesty as they internalized these behaviours as the norm. Social Learning Theory also emphasizes the role of reinforcement and punishment in shaping behaviour. When parents reinforce positive behaviours related to academic integrity, such as rewarding honesty or acknowledging hard work, children are more likely to repeat these behaviours. Conversely, when parents punish or discourage dishonest behaviours, such as cheating or plagiarism, children learn to avoid these actions. Murdock et al. (2020) explored how parental reinforcement of academic integrity influenced students' behaviour. The study found that when parents praised their children for completing their work honestly and discouraged shortcuts like cheating, children were more prone to developing a strong commitment to academic integrity. The researchers highlighted the importance of consistent reinforcement in reinforcing ethical behaviour, as inconsistent or absent reinforcement could lead to confusion about acceptable behaviours. Social Learning Theory also considers the broader social environment, including parents' occupations and educational backgrounds, which shape the values and behaviours children are exposed to. Parents in professions that require high ethical standards are more likely to model behaviours that emphasize the importance of integrity, which children then emulate. Smith and King (2018) found that children of parents in professions like law, medicine, and education were more likely to exhibit strong academic integrity, as they were frequently exposed to discussions about the importance of ethical behaviour in both professional and educational settings.

The Theory of Planned Behavior is also relevant in the Context of Academic Integrity. The Theory of Planned Behavior (TPB), developed by Ajzen (2006), is a psychological theory that explains how an individual's behaviour is influenced by their intentions, which are shaped by three key factors: attitudes toward the behaviour, subjective norms, and perceived behavioural control. In the context of academic integrity, TPB provides a framework for understanding how students' decisions to engage in or refrain from dishonest academic practices, such as cheating or plagiarism, are influenced by their beliefs, the expectations of others, and their perceived ability to act ethically. The Theory of Planned Behavior has been widely applied in research to understand various aspects of academic integrity. Researchers have used TPB to explore how factors, such as parental influence, peer pressure, and personal beliefs, shape students' intentions and behaviours related to academic honesty (Ossai et al., 2023a, b). Ston et al. (2017) applied TPB to investigate the role of parental influence in shaping students' academic behaviours. The study found that parental attitudes towards education and integrity significantly influenced students' attitudes and intentions regarding academic honesty. When parents emphasized the importance of honesty and discouraged dishonest behaviours, students were more likely to develop positive attitudes towards academic integrity, reducing their likelihood of cheating.

McCabe and Trevino (2018) also used TPB to examine the impact of school culture on students' academic integrity. They found that schools with strong ethical cultures, where academic honesty was actively promoted by teachers and administrators, had lower rates of cheating. The study highlighted the importance of aligning school

policies with academic integrity values and ensuring that students perceive these values as integral to their educational environment.

#### 4. Method

Survey research design was used in the study. The population of the study consisted of 283,089 students (133,668 male and 149,421 female final year secondary school students) in the 6 States of the South-South geopolitical zone of Nigeria (Akwa-Ibom, Bayelsa, Cross-Rivers, Delta, Edo and Rivers States) in the 2023/2024 academic session. The Multistage proportionate sampling technique was used to select a representative sample size of 3000 students for the study. In the first stage, simple random sampling was used to select 3 states (Cross Rivers, Edo and Rivers) from the 6 states in the South-South zone of Nigeria. In the second stage, 5 Local Government Areas (LGAs) were selected randomly from each of the 3 States. In the third stage, 10 secondary schools were selected randomly from each of the 5 LGAs in each State. Then stratified proportionate random sampling technique was used to select the students in each of the schools to ensure that each gender is adequately represented. The sample size distribution by State and Gender is presented in Table 1.

Table 1: Sample size by States and Gender of Students

State	Male	Female	Total
Cross Rivers	385	503	888
Edo	358	690	1048
Rivers	414	650	1064
Total	1157	1843	3000

Data was collected with the aid of a Students' Examination Integrity Measurement Instrument (SEIMI) which was adapted from Ossai et al (2023a). It consisted of Sections A and B. Section A elicited responses on the students' Age, Gender, Parents' Educational Qualifications and Occupations, School Location and Type while Section B contained items measuring the 6 segments of students' examination integrity. First segment focused on Study Habits (4 items); second segment on Examination Ethics (7) items; third on Examination Anxiety (8 items); fourth segment on Moral Background (6 items); fifth segment on Attitude towards Cheating in Examinations (8 items); and, the sixth segment on Past Experience in Cheating in Examinations (7 items). The SEIMI was subjected to face and content validity by constructing a table of test blueprint and expert evaluation by 3 specialists in the fields of educational measurement and evaluation, counselling psycho-metrics and counselling psychology. Their critiques and suggestions were used to fine tune the items and, in some cases, reconstruct certain items. Principal Component Factor Analysis and Rotated Component Matrix were used to establish the reliability and validity of SEIMI from a pilot study data. Pearson Product Moment Correlation coefficient ( $r$ ) and multiple regression were used for data analysis as appropriate for each research question and hypothesis.

#### 5. Results

Results of data analysis are presented in order of research questions and hypotheses. Table 2 addresses research question 1 and hypothesis 1 which focused on the relationship between parental occupational factors and students' examination integrity. Data in Table 2 indicate that there is significant relationship between parental occupational factors and students' examination integrity. Fathers and Mothers occupations were significantly correlated to the students' examination integrity but Mothers occupations were more significantly correlated. From the positive correlation values, it appears that students whose parents are in highly ethical occupations in the Military, Civil Service and corporate organizations have better examination integrity than those whose parents are unemployed or self-employed.

Table 2: Relationship between parental occupational factors and students' examination integrity.

		Examination Integrity	Fathers Occupation	Mothers Occupation
Examination Integrity	Pearson Correlation	1	.054**	.089**
	Sig. (2-tailed)		.003	.000
	N	3000	3000	3000
Fathers Occupation	Pearson Correlation	.054**	1	.437**
	Sig. (2-tailed)	.003		.000
	N	3000	3000	3000
Mothers Occupation	Pearson Correlation	.089**	.437**	1
	Sig. (2-tailed)	.000	.000	
	N	3000	3000	3000

\*\* . Correlation is significant at the 0.01 and 0.05 levels (2-tailed).

Research question 2 and hypothesis 2 which centres on relationship between parental academic qualifications and students' examination integrity is addressed by Table 3.

Table 3: Relationship between parental academic qualifications and students' examination integrity

		Examination Integrity	Fathers Qualification	Mothers Qualification
Examination Integrity	Pearson Correlation	1	-.031	-.017
	Sig. (2-tailed)		.087	.338
	N	3000	2997	3000
Fathers Qualification	Pearson Correlation	-.031	1	.604**
	Sig. (2-tailed)	.087		.000
	N	3000	3000	3000
Mothers Qualification	Pearson Correlation	-.017	.604**	1
	Sig. (2-tailed)	.338	.000	
	N	3000	3000	3000

\*\* . Correlation is significant at the 0.01 and 0.05 levels (2-tailed).

Data in Table 3 shows that there is no significant relationship between parental academic qualifications and students' examination integrity.

Research question 3 and hypothesis 3 focused on the moderating impact of students' age on the relationship among parental occupational factors, academic qualifications and students' examination integrity and they are addressed with Data in Table 4.

Table 4: Age as moderator of the relationship among parental occupational factors, academic qualifications and students' examination integrity.

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	Collinearity Statistics	
		B	Std. Error				Tolerance	VIF
1	(Constant)	130.539	3.655		35.711	.000		
	Age	-1.039	.206	-.093	-5.034	.000	.962	1.040
	Fathers Qualification	-.224	.140	-.036	-1.604	.109	.635	1.575
	Mothers Qualification	-.140	.144	-.022	-.973	.331	.621	1.611
	Fathers Occupation	-.167	.214	-.016	-.778	.437	.808	1.238
	Mothers Occupation	-.813	.202	-.082	-4.032	.000	.802	1.247

a. Dependent Variable: Examination Integrity

Data in Table 4 indicates that Age is a significant moderator of the relationship among parental occupational factors, academic qualifications and students' examination integrity. The t value for Age (-5.034) is significant at both the 0.01 and 0.05 levels of significance.

Research question 4 and hypothesis 4 centred on the moderating impact of students' gender on the relationship among parental occupational factors, academic qualifications and students' examination integrity. They are addressed with data in Table 5.

Table 5: Gender as moderator of relationship among parental occupational factors, academic qualifications and students' examination integrity

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error				Tolerance	VIF
1	(Constant)	111.217	1.262		88.104	.000		
	Fathers Qualification	-.214	.140	-.035	-1.524	.128	.635	1.575
	Mothers Qualification	-.031	.143	-.005	-.219	.827	.630	1.587
	Fathers Occupation	-.186	.215	-.018	-.866	.387	.808	1.238
	Mothers Occupation	-.844	.202	-.085	-4.172	.000	.802	1.246
	Gender	.783	.600	.024	1.306	.192	.995	1.005

a. Dependent Variable: Examination Integrity

Data in Table 5 shows that Gender is not a significant moderator of the relationship among parental occupational factors, academic qualifications and students' examination integrity. The t value for Gender (1.306) is not significant at both the 0.01 and 0.05 levels of significance.

## 6. Discussion of Findings

The finding in this study that students whose parents are in highly ethical occupations in the Military, Civil Service and corporate organizations have better examination integrity than those whose parents are unemployed or self-employed could be accounted for on the basis of occupational ethics. Occupational ethics refers to the moral principles and standards that guide behaviour within a specific profession. The impact of occupational ethics on children's academic integrity is significant because parents in professions that require high ethical standards are likely to instill similar values in their children. Jones et al. (2018) found that parents who work in fields like law, medicine, and academia, where ethical behaviour is critical, often emphasize the importance of honesty and integrity to their children. This influence can result in a greater commitment to maintaining academic integrity among these students. In contrast, Nguyen and Lee (2021) reported that children of parents in occupations with less stringent ethical requirements or those without formal ethical training might not receive the same level of emphasis on academic honesty. The study suggested that these parents may not have as strong a focus on the ethical implications of scholarly work, leading to higher rates of academic dishonesty among their children. Empirical research has extensively examined the influence of parental factors, such as occupation and education, on students' academic integrity. These studies provide valuable insights into how parental roles shape children's ethical behaviours and attitudes toward academic honesty. Various studies have examined how different types of parental occupations, whether professional or non-professional, and the ethical norms associated with these roles impact students' likelihood to engage in academic dishonesty. Several empirical studies have investigated the relationship between parental occupation and students' academic integrity. These studies explore how the nature of a parent's job, the ethical standards associated with it, and the socio-economic status it confers influence children's behaviour in academic settings.

Stewart and DeShon (2019) explored the link between parental occupational prestige and students' academic integrity among 1,200 high school students in the United States. Using multiple regression analysis, they found a significant positive correlation between high parental occupational prestige and higher levels of academic integrity among students. The results suggest that students whose parents hold prestigious occupations are less likely to engage in academic dishonesty, potentially due to the values and expectations associated with such professions. Kim and Cho (2016) examined how parental occupational roles influence students' academic integrity in South Korea. In their survey of 800 high school students from various regions, data analysis revealed that students with parents in managerial roles were 1.5 times more likely to exhibit academic integrity than those with non-



managerial parents. The findings highlight the impact of parents' occupational status on the ethical behaviour of their children, suggesting that the responsibilities and ethical expectations associated with managerial roles may positively influence students' attitudes toward academic honesty. Furthermore, Ahmed and Munir (2021) investigated the influence of parental occupation sectors (public vs. private) on academic integrity among 900 high school students in Pakistan. Through a two-way ANOVA, they found that students whose parents worked in the public sector exhibited significantly higher academic integrity scores than those whose parents were employed in the private sector. The study suggests that the values associated with public sector employment, such as accountability and transparency, may contribute to higher standards of academic honesty among students. In a similar study, Ward and King (2017) examined the connection between parental involvement in ethically demanding occupations and their children's academic integrity in a survey of 1,500 high school students in the United States. Using structural equation modelling (SEM), they found that parental involvement in ethically demanding professions had a strong positive impact on students' academic integrity. The results indicate that ethical discussions at home, likely stemming from parents' professional experiences, are crucial in shaping students' adherence to academic integrity. Studies among College students have also led to similar conclusions. For instance, Garcia and Carpenter (2020) assessed the impact of parental occupation in creative versus structured industries on college students' academic integrity, involving 1,000 undergraduates from three universities in the United States. A MANOVA revealed significant differences in academic integrity based on parental occupation, with students whose parents worked in structured industries showing higher integrity across multiple dimensions compared to those with parents in creative industries.

Though the present study found that parental academic qualifications are not significantly correlated to students' academic integrity, some other studies did. Parental academic qualifications refer to the highest level of education parents have attained. This factor may play a crucial role in shaping the attitudes and behaviours of children, particularly in the context of education. Higher parental education levels are often associated with a greater emphasis on the importance of education, which can directly influence students' commitment to maintaining academic integrity. This factor has been the focus of some studies, including its impact on children's development, academic performance, social behaviour, and ethical values. They found that parental educational levels can significantly impact the values and behaviours parents instill in their children, particularly concerning education and academic integrity. One of such studies is Onoyase (2021) who found that parental education significantly predicted students' attitudes towards examination integrity. The research indicated that children of highly educated parents were more aware of the ethical implications of cheating and were less likely to engage in such behaviours, owing to the values and discussions emphasized at home. The

The intersection of parental occupational factors and academic qualifications creates a complex dynamic that significantly influences students' academic behaviour, particularly their adherence to examination integrity. Depending on the specific circumstances of the parents' professional and educational backgrounds, this interplay can either reinforce positive academic values or, in some cases, contribute to the erosion of ethical standards. When parents possess both high occupational status and advanced educational qualifications, the synergistic effects on their children's academic integrity can be profound. These parents are likely to emphasize the importance of both education and ethical behavior, creating an environment that strongly supports academic honesty. Kumar and Sharma (2017) found that students whose parents held prestigious positions and had high educational qualifications showed more substantial commitment to academic integrity. The study suggested that these parents had the resources to support their children's education and instilled in them the ethical standards expected in their professions. Moreover, Davis and Rodriguez (2020) noted that parents in high-status occupations often have greater access to social and educational resources, which they can leverage to foster an environment that discourages academic dishonesty. These parents are more likely to discuss the long-term consequences of academic integrity with their children, emphasizing that success should be achieved through honest means rather than shortcuts like cheating.

## 7. Conclusion

It has been confirmed that parental occupations are significantly correlated to their children's examination integrity. Examination integrity is a subset of academic integrity which focuses on the behaviour of students

associated with academic assessments. Students whose parents are engaged in highly ethical occupations such as military, police, civil service and corporate organizations demonstrated higher levels of examination integrity than those whose parents were unemployed or self-employed. Therefore, more attention should be given to such students who come from such parental backgrounds in order to shore up their examination integrity levels. The age of the students is another factor that moderates the interplay of parental occupational factors, academic qualifications and examination integrity. It appears that examination integrity deteriorates as the age of the student increases hence the inverse relationship between the age of the students and their examination integrity. Therefore, teachers and parents should intensify efforts towards entrenching the values of examination integrity as the students advance in years.

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# Examining Self-Assessment of Student Teachers' Self-Directed Learning: A Case Study at Battambang Teacher Education College, Cambodia

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## Abstract

This case study, a collaborative investigation into the self-assessment of student teachers' self-directed learning in the Battambang Teacher Education College (BTEC) teacher education program, provides valuable insights. The study employs both quantitative and qualitative analyses. Data was collected through surveys and open-ended questions with 187 BTEC student teachers. The findings revealed that student teachers actively engaged in reflective self-assessment practices, enabling them to identify improvement areas and develop personalized learning strategies. However, limited time, lack of mentorship, and inadequate institutional support could have helped their ability to fully direct their learning. The study provides practical recommendations to BTEC program administrators on enhancing the support and resources offered to student teachers, such as increasing mentorship opportunities and improving institutional support, to promote their autonomous learning and professional development. These recommendations are designed to be actionable and can be implemented to improve the BTEC teacher education program. The collaborative research contributes to the ongoing efforts to improve teacher education and equip future educators to meet the evolving demands of the modern classroom, making the audience feel included and part of the solution.

**Keywords:** Self-Assessment, Self-Directed Learning, Independent Learner, Andragogy, Constructivism

## 1. Introduction

### *1.1. Present of the Problems*

The BTEC program, known for its innovative approach to teacher education that focuses on self-assessment and self-directed learning, is essential in addressing this global need. Student teachers in the BTEC program have a crucial role in influencing the quality of instruction and learning in the classroom, making them key figures in the future of the teaching profession. To effectively handle the challenges of this ever-changing position, student

teachers must actively participate in ongoing self-evaluation and self-guided education, cultivating a mentality focused on personal improvement that propels their professional advancement (Mezirow, 1991; Schön, 2017). Self-assessment is the process of evaluating one's performance based on predetermined criteria. It enables student teachers to critically analyze their teaching practices, identify areas that need development, and build specific plans for personal growth (Andrade & Valtcheva, 2009; Seifert & Feliks, 2019; Sejati et al., 2020; Yan et al., 2023). Reflective practice is widely recognized as an essential component of effective teacher development (Liu & Ball, 2019; Nuraeni & Heryatun, 2021; Slade et al., 2019). It enables student teachers to identify strengths and weaknesses and the impact of their learning (Rodgers, 2002; Zeichner & Liston, 2013).

Self-directed learning is the act of individuals taking the initiative to analyze their learning requirements, set goals, find resources, select and use suitable tactics, and assess the results of their learning (Dewi et al., 2019; Nasri, 2019; Van D. W., 2019). This student-centered approach is especially appropriate for student teachers since it enables them to customize their professional development according to their needs and objectives, promoting ownership and control over their advancement (Baumgartner, 2011; Hagger & McIntyre, 2006). By combining these two essential processes, student teachers can actively participate in a dynamic and transforming learning experience, fostering a profound comprehension of their teaching practice and promoting ongoing enhancement (Damianakis et al., 2019; Heilporn et al., 2021; Mezirow, 1991; Schon, 1987). This study investigates the analytical methods that student teachers can use to effectively utilize self-assessment and self-directed learning, thereby improving the quality of teaching and learning in the classroom (Arefian, 2022; Lubbe et al., 2021; Sosibo, 2019; Tlili et al., 2022). The significance of this subject cannot be exaggerated since the cultivation of proficient and thoughtful educators is not only necessary but indispensable for the triumph of educational systems globally. Student teachers may effectively traverse classroom challenges by incorporating self-assessment and self-directed learning (Brazeo, 2024; Papanthymou & Darra, 2023; Vareberg, 2021). This approach empowers them to control their learning and become catalysts for positive change. It also promotes a culture of ongoing development, leading to improved outcomes for their students (Johnson et al., 2023; Mahoney et al., 2021).

The self-assessment of self-directed learning among student teachers is crucial for identifying gaps in their perceived and actual learning capabilities, helping to inform the development of more effective teacher training programs (Malcolm Shepherd, 1975; Philip C., 1991). Exploring how student teachers evaluate their self-directed learning can reveal insights into their learning processes and self-perceptions, which are essential for personal and professional growth (Zimmerman, 2002). Additionally, understanding the factors that either support or impede self-directed learning, such as intrinsic motivation, prior experiences, and institutional support, is vital for creating a conducive learning environment (Deci & Ryan, 2000; Garrison, 1997). By analyzing these dimensions, educational institutions can implement targeted strategies that enhance self-directed learning among student teachers, ultimately leading to significantly improved academic outcomes (Brockett & Hiemstra, 2018). This prospect should inspire hope and motivation in all of us.

The current corpus of research on self-assessment and self-directed learning among student teachers establishes a solid basis for this study. Multiple studies have investigated the influence of reflective practices on the professional growth of preservice and inexperienced teachers (Choy et al., 2019; Dumlao & Pinatacan, 2019; Kulgemeyer et al., 2021). Korthagen and Vasalos (2005) and Özüdogru (2021) investigated the application of "core reflection," a comprehensive method of self-evaluation that prompts student teachers to examine their beliefs, emotions, and actions in the classroom. Their research indicates that engaging in this reflective process can substantially impact teaching effectiveness and foster a more profound sense of professional identity. Zeichner and Liston (2013) have also highlighted the significance of cultivating reflective teaching habits. They argue that this practice allows student teachers to adjust their instructional methods to suit the specific requirements of their pupils (Beninghof, 2020; Fischer & Hänze, 2019; Roberts & Inman, 2023).

Moreover, studies by Mezirow (1997) and Baumgartner (2011) have emphasized the profound capacity of self-directed learning to bring about transformation. These studies have shown how this student-centered approach can enable aspiring teachers to assume responsibility for their professional development and participate in significant, situation-specific learning (Caulfield, 2023; Drotar, 2019; Pan et al., 2024). This study project explores the

analytical tools that student teachers might use to optimize the combined advantages of self-assessment and self-directed learning based on existing theories and empirical data.

The findings of this research were shared with the BTEC program administrators, together with precise suggestions for improving the assistance and resources provided to student teachers to promote their autonomous learning and professional growth. This study links the research objectives with the requirements of the BTEC program to contribute to the continuous efforts to enhance the standard of teacher education and effectively equip future educators to tackle the demands of the modern classroom. There were two main research questions were asked to verify the research objective of the study:

1. How can we examine the self-assessment of student teachers' self-directed learning in the program?
2. What factors either support or impede the self-directed learning process among student teachers?

In the survey results, we aim to provide practical recommendations to BTEC program managers to enhance the support provided for student teachers' independent study. These recommendations will be based on student teachers' authentic experiences and needs, making them highly relevant and actionable.

## *1.2. Literature Review*

### *1.2.1. Foundations of Andragogy and Constructivism*

In the 1970s, Malcolm Knowles introduced andragogy, which is how adults learn. This is different from pedagogy, which focuses on teaching children. Principles of andragogy include: first, adult learners prefer to self-identify their learning requirements, create goals, and evaluate their progress (Boggs, 2021; Housel, 2020; Scholtz, 2024). With their life experiences, adults improve the learning environment and deepen comprehension. When the knowledge is relevant to their personal or professional lives, they are more driven to learn, displaying a practical readiness (Manasia et al., 2019; Morris, 2019; Rusilowati & Wahyudi, 2020). Adult learners also focus on real-world problems rather than abstract principles (Fenwick & Tennant, 2020; Rothwell, 2020). In conclusion, andragogy stresses mutual respect and autonomy since adults want their prior knowledge acknowledged and to participate in their learning actively. Andragogy promotes a collaborative and flexible learning environment that meets adult learners' requirements and incentives (Coley, 2022; Lewis & Bryan, 2021; Rahmawati & Hiryanto, 2023).

While it is not to say that children do not possess these attributes, they are typically more pronounced in adults. The terms 'pedagogy' and 'andragogy' correspondingly highlight the specific methodologies required for instructing children and adults (Cormack, 2021; Loeng, 2023; Subba, 2019; Tezcan, 2022). The core principle of andragogy is that adult learners are autonomous and responsible for their Education (Wilcox, 1996). They achieve this by identifying their learning needs, setting educational goals, creating a study plan, selecting appropriate learning resources, implementing their plan, and evaluating their progress. Adult learners often choose self-assessment to gauge their development (Sosibo, 2019; Van Loon, 2019; Z. C., 2019), and they highly value the ability to control their learning pace (Carter Jr et al., 2020; El-Sabagh, 2021).

Adult learners are generally self-reliant and can control, observe, and enhance themselves. This sets them apart from youngsters, who usually depend more on their teachers for direction and instruction (Kallick, 2004). Moreover, constructivism and andragogy have a significant association since both frameworks prioritize and highlight the need for active engagement in teaching and learning (Khadimally, 2021; Loudenback, 2019; Smith, 2023). Both techniques involve learners actively constructing and generating knowledge rather than simply absorbing it passively (Ma, 2023; Roe, 2023). This principle also applies to self-evaluations. Du Toit-Brits (2019) and Ahammad (2023) explained that self-directed learning (SDL) is a crucial element of constructivism and andragogy, underscoring its fundamental importance in this topic. Hence, this article employs SDL as its analytical unit, highlighting its significance in educational frameworks (Glassman, 2001). This examination demonstrates the distinct qualities of adult learners and the correlation between andragogy and constructivism, emphasizing the significance of self-directed learning (SDL) in promoting compelling learning experiences for adults.

### 1.2.2. Conceptualizing Self-Assessments

According to Brown and Harris (2014), self-assessment is how students describe and evaluate their work and academic ability. This concept goes beyond giving grades or scores; it includes a thorough assessment of an individual's learning process (Boud, 1995). The primary purpose of self-evaluation is to enhance learning and promote personal development and growth (McNamara et al., 2022; Vera et al., 2019; Z. C, 2019). Traditional evaluation focuses on outcomes, while self-assessments allow students to take control of their educational journey and establish their voices in the teaching-learning process (Alghanmi, 2023; Bourke, 2016; Taras & Wong, 2023). Self-assessment utilizes techniques and approaches that allow students to analyze and assess their learning experiences and outcomes (Ernesto Panadero, 2016; Ifenthaler et al., 2023; Karaman, 2021; Tashiro et al., 2021; Yan, 2020).

Knowles (1975). Vergara et al. (2020) and Lavrentieva et al. (2019) emphasize a process in which learners recognize their requirements, establish educational objectives, actively search for resources, select efficient learning methods, and independently or collectively assess their outcomes. He proposes that portfolios are crucial in cultivating self-directed learning (SDL) abilities, enabling students to record and substantiate their educational advancement. Schumacher et al. (2019), Mauck (2022), and Dreisiebner and Slepcevic-Zach (2019) mentioned that portfolios can have different forms and purposes, including electronic and non-electronic collections. Showcase portfolios emphasize the presentation of completed work to an audience while learning portfolios capture the process of acquiring knowledge and skills (Kihwele et al., 2024; Nuryanto et al., 2024). The significance of SDL in adult education is notable, especially in its focus on how individuals acquire knowledge and skills in different life roles, such as being a parent, employee, or citizen (Roy, 2019; Šatienė, 2021; Vithayaporn et al., 2021).

Remote learning environments and suggested learning advisory networks also augment this form of learning by offering essential assistance (Bouchev et al., 2021). Heidi Andrade (2014) demonstrates that students are prompted to critically evaluate their work and explore options for development through hands-on experiences and self- and peer assessment, emphasizing the crucial role of reflection in self-evaluation. Furthermore, the literature suggests that self-directed learning fosters the development of critical thinking, introspection, and the ability to continue learning throughout one's life (Avsec & Jagiełło-Kowalczyk, 2021; Charokar & Dulloo, 2022). The connection between self-assessment and self-directed learning (SDL) is strengthened by their shared emphasis on a student-centered approach, enabling students to assume responsibility for their Education (Len & Tieme, 2022; Rui et al., 2024; Warnick, 2018). This thorough research highlights the significance of self-evaluation and self-directed learning (SDL) in promoting active, independent learners who can navigate their educational journeys (Kharroubi & ElMediouni, 2024; Perera, 2022).

### 1.2.3. Reflecting on Self-Assessment and Self-Directed Learning

Supporting students' learning is a crucial objective of self-assessment. This is especially crucial if and when formatively using self-assessment as a learning method (Taras, 2010). Self-assessment has three objectives: to measure the material or subject matter mastery, to show that learning objectives and results have been met, and to encourage learners' personal growth (Andrade, 2019; Chung et al., 2021; Sosibo, 2019). Out of the three, we believe that personal development—which is a critical component of SDL—is the ultimate aim of self-assessment (Groen et al., 2020; Lyonga, 2022; Taylor et al., 2023; Wride, 2017).

Self-Directed Learning (SDL) is a foundational concept in adult education, emphasizing the autonomy and initiative of learners in managing their educational processes (Gharti, 2019; Morris, 2019; Supe et al., 2024). Knowles (1975) defines SDL as a process where individuals take responsibility for their learning by diagnosing their needs, setting goals, and evaluating their progress. Candy (1991) expands on this notion, highlighting that SDL is not just about learning but about empowerment for lifelong learning, enabling individuals to adapt their learning strategies over time. Owen (2002) offers a critical perspective, arguing that while SDL is empowering, learners must also navigate the challenges of self-directedness within societal constraints. Garrison (1997) supports the importance of a learning environment that fosters critical reflection and collaborative discourse, which is

essential for enhancing learners' SDL capacities. Sarkın and Seçkin (2023) highlight the necessity of creating conditions supporting SDL to facilitate effective independent learning.

Moreover, Zimmerman (2002) discusses self-regulation as integral to SDL, emphasizing the need for effective goal-setting and self-evaluation. Usher and Schunk (2017) further explore how self-efficacy beliefs influence learners' SDL by affecting their motivation and persistence. Grow (1991) introduces a developmental model of SDL, outlining how educators can guide learners through varying levels of self-direction. In addition, Merriam and Brockett (2011) emphasize the practicality of SDL in adult education contexts, noting that it aligns with the practical needs of adult learners. Finally, Davis et al. (2010) provide empirical evidence of SDL's prevalence among adults, showcasing various informal learning strategies. Together, these studies illustrate that SDL is a critical component of adult learning theory and essential for fostering independent, lifelong learners.

## **2. Method**

### *2.1. Research Design*

Based on the findings, the survey aims to examine student instructors' self-directed learning and offer recommendations to BTEC administrators. For this study, 200 student teachers from Battambang Teacher Education College are expected to participate. The survey was designed to comprehensively investigate student teachers' self-directed learning behaviors and develop a study methodology to evaluate the impact of self-assessment and self-directed learning on their professional development. This thorough approach ensures the validity and reliability of our research findings. The study utilized a research approach involving surveys to investigate the self-directed learning practices of student teachers enrolled in the BTEC program.

### *2.2. Participant*

The study focuses on 250 student teachers studying in the BTEC program as the target group. The recruitment of participants utilized a convenience sample method, whereby the survey was given to all student teachers via the Google form. At least 200 student teachers are anticipated to participate in the survey, yielding a substantial and comprehensive dataset for analysis. The data collection method involved 187 student instructors, slightly less than the expected number of 200 participants. However, the high participation percentage of 93.5% ensures that this sample size is more than adequate for statistical analysis. Therefore, the analyst can proceed with the study, confident that the results will provide significant insights into the larger population of student instructors.

### *2.3. Research tool*

The researcher developed a comprehensive survey to assess self-directed learning among student teachers, adapting items from the Self-Directed Learning Readiness Scale (Guglielmino, 1977) and the Self-Directed Learning Measurement Scale (Cheng et al., 2010). The survey includes questions based on established frameworks, such as Garrison's self-directed learning model (1997). It consists of three sections: demographic information (including gender, specialization, and teaching background), self-assessments of self-directed learning experiences, and perspectives on factors influencing the self-directed learning process. The assessment measures the participants' abilities to identify educational needs, set objectives, select appropriate learning methods, and evaluate their progress. A total of twenty items were adapted, and three experts evaluated their validity, resulting in the elimination of two unacceptable items. The Cronbach's Alpha, which measures internal consistency, was calculated at 0.91 based on responses from 116 participants, indicating excellent reliability among the remaining 18 items. This high value suggests a strong positive relationship among the items, effectively measuring the same underlying construct.

### *2.4. Data analysis*



The survey data were analyzed using both quantitative and qualitative methods. A comprehensive examination of descriptive statistics, including frequencies, means, and standard deviations, described the student teachers' self-directed learning behaviors and perspectives. The open-ended responses from the last section of the survey were analyzed thematically. This analysis enables the researchers to discover significant themes and patterns in the ideas made by student teachers to improve the program. The qualitative insights add context and depth to the quantitative findings, resulting in a thorough knowledge of the self-directed learning experiences in the BTEC program.

### 3. Results

The survey revealed significant findings regarding the research objective—the quantitative and qualitative findings are presented in the following section.

#### 3.1. Demographics of the respondents

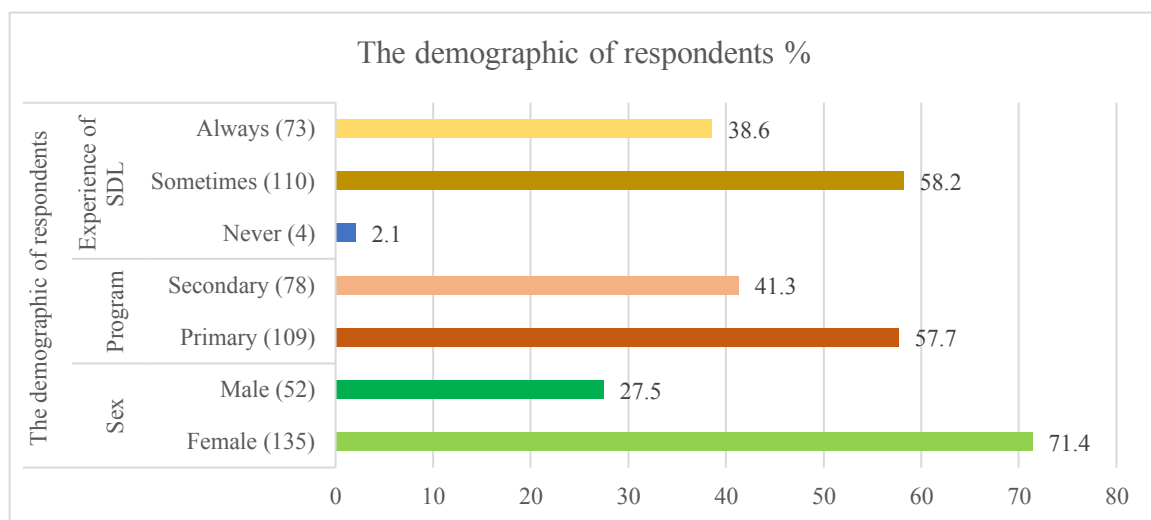


Figure 1: The demographic of respondents as a percentage

Figure 1 demonstrates that the analysis reveals significant insights into the participants' experiences and backgrounds regarding self-directed learning (SDL). A majority, comprising 58.2%, indicated that they engage in SDL "sometimes," while 38.6% reported "always" applying these principles, suggesting a generally favorable attitude towards SDL practices among respondents. Conversely, a minimal 2.1% of participants claimed to "never" engage in SDL, highlighting a potential area for further educational intervention. The academic background of the respondents shows that 57.7% have completed primary education, whereas secondary education holders represent 41.3%, indicating a diverse educational landscape that might influence their SDL engagement. Gender representation is notably biased, with female respondents at 71.4%, compared to 27.5% male respondents. This disparity raises questions regarding gender-specific engagement rates and preferences related to SDL. Overall, the data indicates a promising propensity towards SDL and underscores the need for tailored educational approaches that consider demographic influences to enhance learning outcomes effectively.

#### 3.2. The Degree of Student Teachers Implement Their SDL

The data indicates varying Self-Directed Learning (SDL) implementation levels, categorized by percentage ranges. Most participants, 109 out of 187, reported SDL implementation within the 50-75% range, suggesting a strong inclination toward incorporating SDL practices in their learning environments. The second highest percentage (34.22%) falls within the 25-50% range, indicating that while SDL is recognized, there remains substantial room for improvement in its integration. This finding underscores the urgent need for further development in educational practices, emphasizing the importance of the work of educators and researchers in this field. Conversely, only 6 participants (3.21%) reported minimal implementation (10-25%), suggesting a negligible reliance on SDL approaches. Notably, the 75-100% category received a low response rate of 8 participants (4.28%), highlighting

that achieving full SDL implementation may be challenging. Overall, these findings reflect a predominance of moderate SDL utilization, pointing to a potential area for further development in educational practices.

### 3.3. Student Teachers' Self-Assessment on Self-Directed Learning

Table 1: Indicating Student Teachers' Perception of their SDL

Items	Descriptive analysis					Mean	SD	
	S-D	Dis	N	Agree	S-A			
Q1	I know what I need to learn.	0	4	20	148	15	3.93	0.98
Q2	Regardless of the result or effectiveness of my learning, I still like learning.	1	1	12	134	39	4.00	0.93
Q3	I want to constantly improve and excel in my learning.	0	2	2	151	32	4.06	0.82
Q4	My successes and failures inspire me to continue learning.	0	0	7	120	60	4.23	0.70
Q5	I enjoy finding answers to questions.	0	1	24	136	26	3.64	0.85
Q6	I will not give up learning because I face some difficulties.	0	0	6	102	79	4.34	0.73
Q7	I can proactively establish my learning goals.	0	3	27	131	26	3.76	0.88
Q8	I know what learning strategies are appropriate for me in reaching my learning goals.	0	6	41	129	11	3.59	0.94
Q9	I set the priorities of my learning.	0	3	32	140	12	4.06	0.80
Q10	In the classroom or on my own, I can follow my plan of learning.	0	5	33	142	7	3.74	0.82
Q12	I know how to find resources for my learning.	0	13	51	114	9	3.27	1.14
Q13	I can connect new knowledge with my personal experiences.	0	8	25	144	10	3.59	0.96
Q14	I understand the strengths and weaknesses of my learning	0	7	22	130	28	3.70	0.88
Q15	I can monitor my learning progress.	0	5	29	138	15	3.71	0.87
Q16	I can evaluate my learning outcomes.	0	9	32	135	11	3.58	0.82
Q17	My interaction with others helps me plan for further learning.	0	4	24	136	23	3.71	0.93
Q19	I can express messages effectively in oral presentations.	1	20	65	94	7	2.98	1.06
Q20	I can communicate messages effectively in writing.	0	9	51	120	7	3.43	0.87
Total		2	100	503	2344	417	3.74	0.89

Table 1 shows the results from the survey assessing self-directed learning (SDL) among student teachers, revealing significant insights into their perceptions and readiness for independent learning. The overall mean score of 3.74 (SD = 0.89) reflects a generally positive attitude towards SDL, indicating that many respondents feel confident in their learning abilities. Notably, item Q6, which states, "I will not give up learning because I face some difficulties," received the highest mean score of 4.34 (SD = 0.73), suggesting a solid resilience and commitment to overcoming challenges in their educational journey. In contrast, item Q19, related to the ability to express messages effectively in oral presentations, garnered the lowest mean score of 2.98 (SD = 1.06), indicating a significant area of concern where student teachers may feel less competent, potentially hindering their overall learning experience. The data also highlight that while participants generally recognize the importance of setting

learning goals and monitoring their progress, as shown in items Q7 (mean = 3.76) and Q15 (mean = 3.71), there is an urgent need for further development in understanding and applying appropriate learning strategies (Q8, mean = 3.59). These findings underscore the necessity for targeted interventions, particularly in communication skills, to enhance the effectiveness of self-directed learning and empower student teachers to navigate their educational paths more effectively.

### 3.4. The Main Factors that Either Support or Impede the Self-directed Learning Process among Student Teachers

Table 2: Showing the theme of student teachers' comments on SDL

Themes	Frequency
Practice SDL (Q2)	
Self-Discipline and Goal Setting	7
Planning and Scheduling	5
Research and Resources	3
Focus Areas (Q3)	
Knowledge Acquisition	8
Skill Development	5
Self-Discipline	4
Improvement Conditions (Q4)	
Goal Orientation	6
Time Management	4
Support Structures (Mentorship, Peers)	3
Opportunities and Challenges (Q5)	
Opportunities for Growth	
Gaining Knowledge	5
Independence in Learning	4
Self-Improvement	3
Challenges	
Stress Levels	4
Time Constraints	3
Lack of Guidance	5
Impact on Performance (Q6)	
Academic Improvement	6
Increased Self-Awareness	4
Skill Enhancement	3

Table 2 shows an analysis of Self-Directed Learning (SDL) themes conducted by administering five open-ended questions to student teachers at BTEC. The results highlight many critical areas of concentration that are of utmost importance and have practical implications for the teaching profession. The initial query is to determine how student teachers implement their self-directed learning (SDL). Furthermore, the specific areas of concentration for their SDL are also important. Furthermore, what distinguishes them as superior in the field of SDL? Next, inquire about SDL's potential advantages and difficulties, and then explore how SDL influences their academic achievements. The qualitative data comprises only comments that address the research question, "What are the primary factors that either facilitate or hinder student teachers on self-directed learning (SDL)?" Additional remarks were omitted for diverse reasons. The pertinent answers can be located in the following questions.

#### 3.4.1. How do student teachers practice self-directed learning (self-study)?

The themes about good student practices emphasize the crucial roles of self-discipline and goal planning as fundamental components of academic achievement. Students often emphasize the crucial role of determination, stating, "*We must be determined.*" The comment demonstrates their shared understanding of the significance of dedication in their academic pursuits. In addition, they stress the importance of "exercising discipline in performing a task" as a crucial aspect, emphasizing self-control as a critical element in attaining their learning goals. The concept is strongly linked to efficient planning and scheduling, which students recognize as crucial for managing their academic obligations. The need for organization is apparent in phrases such as "*Establish a daily timetable for each subject*" and "*Develop a study plan,*" both of which demonstrate the systematic methods necessary to

manage one's studies [5] effectively. In addition, it is crucial to have the capability to obtain pertinent information and resources. Students emphasize the need to employ various methods, as evidenced by their references to *"Online research in the library"* and *"Find video tutorials."* The supporting quote highlights the crucial role that diverse resources play in facilitating self-directed learning, enhancing the entire educational experience, and promoting a complete approach to academic success [3]. Together, these themes communicate a subtle comprehension of the actions and tactics contributing to efficient student practices, highlighting the interconnectedness of discipline, preparation, and resourcefulness in fostering successful learners.

#### 3.4.2. What do student teachers practice in self-directed (self-directed) learning?

The focus areas identified among students illuminate essential components necessary for academic success, centering on knowledge acquisition, skill development, and self-discipline. Students emphasize the significance of knowledge acquisition, with frequent assertions such as *"Spend more time studying"* and *"Get new knowledge,"* which highlight a fundamental understanding that time dedicated to learning is directly correlated with academic improvement [8]. This acknowledgment suggests that students recognize the investment of effort as a pivotal factor in their educational outcomes. Moreover, the theme of skill development emerges prominently, where students express a proactive commitment to refining their abilities, evident in statements like *"Focus on skill development"* and *"Develop yourself as a disciplined person."* This proactive stance indicates a growing awareness of the necessity for continuous personal growth in response to evolving academic and professional environments [5].

Additionally, self-discipline is repeatedly identified as a cornerstone for achieving these goals, with phrases such as *"Self-discipline is important for success"* and *"You need to have self-discipline,"* underscoring its critical role in sustaining academic efforts and fostering personal growth [4]. Collectively, these focus areas offer a comprehensive framework that prioritizes not only acquiring knowledge but also enhancing skills and cultivating discipline, which equip students to navigate the complexities of their educational journeys effectively. This integrated approach underscores the interconnectedness of these elements in promoting holistic academic development and success.

#### 3.4.3. What are the conditions for student teachers to become better self-directed learners?

The improvement conditions identified by students reveal essential factors that facilitate academic progress, prominently featuring goal orientation, time management, and support structures. A robust goal orientation is fundamental to effective learning, as evidenced by students' emphasis on the necessity for clarity in their academic pursuits. Phrases such as *"Set clear goals for studies"* and *"Focus on achieving specific outcomes"* underscore the correlation between well-defined objectives and successful learning outcomes [6]. This clarity is a motivational tool that guides students toward their academic aspirations. In addition to goal orientation, effective time management is frequently recognized as crucial for success. Students articulate this necessity through comments like *"Manage your time effectively"* and *"Time management is crucial for success,"* illustrating how well-organized schedules can maximize productivity while minimizing stress and burnout [4].

Furthermore, the importance of support structures—particularly mentorship and peer relationships—emerges as a significant component of the academic experience. Students often highlight the collaborative benefits of these networks, as seen in quotes like *"Seek help from peers or mentors"* and *"Support from teachers and friends."* The supporting quote underscores the intrinsic value of community in creating a supportive learning environment where students can collectively thrive and address academic challenges [3]. Together, these improvement conditions form a comprehensive framework that enhances academic performance and fosters personal development, enabling students to navigate their educational journeys more effectively.

#### 3.4.4. What opportunities and challenges do student-teachers receive when conducting self-directed learning?

The discussions surrounding opportunities and challenges in the learning experience underscore its dual nature, particularly regarding growth potential in knowledge acquisition, fostering independence, and pursuing self-

improvement. Students frequently highlight opportunities for enhancing their skills, expressing sentiments such as *“Opportunities to acquire better skills”* and *“Gain knowledge through self-study.”* These statements reflect a recognition that proactive learning initiatives significantly contribute to academic advancement [5]. Moreover, the emphasis on independence in learning reveals a critical dimension of educational development; students articulate the value of self-directed study, as illustrated by quotes like *“Have the opportunity to study independently”* and *“Independent learning is critical.”* The quote underscores the importance of autonomy, which empowers students to take charge of their educational journeys and encourages more profound engagement with the material [4].

Additionally, the theme of self-improvement is prominent as students express their commitment to personal development. Phrases such as *“Focus on self-improvement”* and *“Self-directed learning promotes growth”* highlight their intrinsic motivation to evolve both academically and personally through deliberate effort and introspection [3]. Together, these elements construct a comprehensive narrative of the opportunities that propel students toward growth while concurrently acknowledging the challenges they face in navigating their educational paths. This interplay between opportunity and challenge fosters a dynamic learning environment crucial for developing resilient and self-motivated learners.

#### 3.4.5. How does self-directed learning (self-study) improve student teachers' academic performance?

The theme of impact on performance delineates the profound influence that students' learning approaches have on their academic outcomes. A notable benefit of self-directed study is academic improvement, as students assert that *“Self-directed study improves results”* and observe that *“Academic performance increases with better planning.”* These assertions illustrate a clear correlation between strategic learning practices and measurable success in their academic endeavors [6]. Moreover, increased self-awareness is critical for cultivating effective study habits. Many students acknowledge that *“Self-awareness leads to better studying”* and stress the significance of *“Understanding one's strengths and weaknesses.”* This self-reflection enables them to customize their learning strategies, enhancing overall performance [4]. Beyond academic achievements, students report notable skill enhancement as a direct result of their self-directed efforts. They emphasize that *“Skill enhancement through consistent practice”* and *“Improved skills resulting from focused study”* are essential aspects of their educational experience, reinforcing the notion that dedicated practice is vital to tangible skill development [3]. Collectively, these insights illuminate the transformative effects of self-directed learning, demonstrating its critical role in enhancing academic performance and fostering personal growth and development. This multifaceted impact underscores the importance of encouraging self-directed approaches in educational settings to optimize student outcomes.

#### 3.5. The main factors either support or impede student teachers on SDL

Supporting self-directed learning among student teachers hinges on several key factors. Self-discipline is paramount; students frequently acknowledge its importance with statements like *“Self-discipline is important for success”* [4]. Goal setting also plays a crucial role, as the clarity of academic objectives significantly impacts learning outcomes, as reflected in the quote, *“Set clear goals for studies”* [6]. Effective planning and scheduling are essential for managing study time and materials, demonstrated by insights like *“Schedule a daily schedule for each subject”* [5]. Additionally, access to resources enhances the learning experience; students often refer to the value of various tools, stating, *“Find video tutorials”* and *“And online research in the library”* [3]. Finally, support structures, including mentorship and peer relationships, create a conducive learning environment, with comments such as *“Seek help from peers or mentors”* underscoring this point [3]. Conversely, several factors can impede the self-directed learning process. A lack of guidance from mentors leaves students feeling lost, as noted in quotes like *“Without support from teachers, I feel lost”* [3]. Time constraints pose significant challenges, with student teachers expressing the necessity to *“Manage your time effectively”* [4]. High levels of stress and anxiety further complicate the situation, making it difficult for student teachers to maintain focus, as expressed in *“High stress makes it hard to study”* [4]. Limited access to resources can also hinder student teachers' ability to engage fully with their studies, illustrated by statements such as *“I struggle to find the materials I need”* [4]. Lastly, a lack of self-awareness regarding personal strengths and weaknesses can obstruct tailored learning

strategies, with student teachers recognizing that “*Self-awareness leads to better studying*” [4]. These factors shape student teachers' self-directed learning landscape, highlighting supportive and impeding influences.

#### 4. Discussions

The findings from this study provide essential insights into the self-directed learning (SDL) behaviors of student teachers in the BTEC program. The demographic data indicates a generally positive attitude toward SDL, with most respondents reporting that they "sometimes" or "always" engage in SDL practices.

The findings suggest that student teachers acknowledge the importance of SDL and are willing to incorporate these principles into their learning. However, a small percentage (2.1%) reported that they "never" engage in SDL, indicating areas for improvement and the potential for significant growth within the BTEC program, which should be seen as an opportunity for further development. The self-assessment of SDL reveals both strengths and weaknesses. Respondents agreed with their ability to set goals and manage their learning (Q1 and Q3), indicating strong support in these areas (Brockett & Hiemstra, 2018; Garrison, 1997). However, low scores and dissatisfaction regarding Q19 suggest significant issues that need addressing, possibly related to the reliability and validity of the assessment tool, which a Cronbach's Alpha value of 0.91 deemed to have an "excellent" level of dependability (Guglielmino, 1977; Long, 1989). Variability in responses, especially for Q12, underscores the need for qualitative research to explore the diverse perspectives of student teachers and ensure the validity of the findings (Merriam, 2001; Patton, 2014). Factors that support or impede the SDL process provide insights for program improvement. While many student teachers implement SDL to some degree, only a tiny percentage reported high levels of SDL engagement (75-100%) (M. et al., 1975; Owen, 2002; Tough, 1971).

The thematic analysis of open-ended responses identified vital factors affecting SDL, including self-discipline, goal setting, time management, and access to resources (Brockett & Hiemstra, 2018; Candy, 1991; Garrison, 1997). These findings guided the development of targeted interventions to enhance SDL capabilities among student teachers (Hiemstra, 1994; Merriam, 2001). Additionally, the study indicates potential gender-specific differences in SDL engagement, with 71.4% of respondents being female. This disparity raises questions about sociocultural influences, such as peer group, technology, education conditions, learning preferences, such as learning strategies, motivation, resources selection, diverse learning activities, and access to educational opportunities (Caffarella & Olson, 1993; Merriam & Baumgartner, 2020). Exploring these dynamics could lead to more inclusive educational approaches that cater to diverse needs (Rovai et al., 2013). Furthermore, the literature highlights the importance of motivation (McCoach & Flake, 2018; Medalia & Saperstein, 2011; Pintrich, 1999), learning styles (Abdullah et al., 2024; Hua et al., 2024), and technology-enabled learning strategies (Alreiahi, 2020; Stumbrienė et al., 2024). Understanding these factors is crucial, as motivated learners are more likely to engage in SDL activities (Chukwuedo et al., 2021). Understanding diverse learning styles can lead to personalized SDL interventions (Fleming & Mills, 1992; Kolb, 2014). Incorporating technology can enhance SDL by providing greater access to information and facilitating collaboration (Barasa et al., 2022; Choy & Cheung, 2022).

In conclusion, while student teachers show a generally positive attitude toward SDL, there is room for improvement. The findings underscore the need for targeted interventions focusing on self-discipline, goal setting, time management, and resource access. These interventions are not just beneficial but essential for the growth and development of the BTEC program (Adams & Blair, 2019; Krskova et al., 2021; Kunzl & Messner, 2023; Tushemereirwe, 2021). A deeper qualitative investigation, particularly addressing gender dynamics and the role of motivation (Badjanova et al., 2021; Stolk et al., 2021), learning styles, and technology-enabled learning would further elucidate the diverse perspectives of student teachers and inform tailored educational strategies (Koehler, 2020; Nirmala et al., 2022; Perl, 1985; Williams, 2014).

#### 5. Conclusion and Recommendation

The analysis of self-directed learning (SDL) among student teachers emphasizes the need to cultivate autonomy, intrinsic motivation, and effective time management in educational programs. While many student teachers recognize the importance of SDL, varying satisfaction levels suggest current practices often fall short. This

highlights the necessity for targeted interventions that leverage strengths and address barriers. Implementing mentorship programs can offer guidance, helping student teachers navigate their learning pathways effectively. Additionally, integrating time management training into curricula is crucial for balancing academic and professional responsibilities. Promoting self-directed learning through engaging projects and collaborative opportunities can enhance intrinsic motivation, allowing student teachers to take ownership of their education. BTEC institutions must foster environments that support self-directedness, resilience, and confidence, preparing future educators for complex roles. Main barriers include inadequate time management skills, which hinder students' ability to balance responsibilities. Workshops on planning and stress management can empower students.

Furthermore, dependent learning reduces autonomy; fostering exploratory learning environments can enhance self-confidence and problem-solving skills. Establishing robust mentorship programs and promoting self-care initiatives will also address feelings of uncertainty. By tackling these challenges, BTEC administrators can create a supportive framework for student teachers' SDL success.

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# “Prominent” Epistemology in Reference Books of Islamic Education at Islamic Higher Education Institutions in Indonesia: Retracing Justificative Reasoning

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## Abstract

The reference books used influence academic and learning activities at the university. Consequently, reference books are vital in determining the various types of epistemological content. Accordingly, reference books serve epistemic and authoritative functions for academic actualization and instructional activities. In such cases, reference books are perceived as ideal and influential texts. Through literary research that applies textual analysis and is confirmed by interviews with lecturers who use reference books, it can be known that the selected reference books that Indonesian writers have written are generally still characterized by normative-reproductive nuances. The normative nuances are indicated by textual, analogical, and declarative reasoning, while the reproductive nuances are shown by their poor contextual relevance and justificatory model. Additionally, these books cannot endorse significant intellectual discourses because of their repetitive tendencies. However, in that case, a slight shift was found. Its implication, the concept of Islamic education still tends to remain stagnant or in static motion as there is no firm endorsement made by empirical research, critical paradigms, and progressive formulation. The lecturers also affirm that tendency through their critical evaluation, and they hope that existing reference books can encourage empirical studies, critical reasoning, and contextual response.

**Keywords:** Reference Books, Epistemological Content, Justificative Reasoning, Stagnation, Lecturer’s View

## 1. Introduction

The Islamic world is, currently in the worst situation it has ever been in history (Iqbal [ed.], 2012). That situation, which has led to a multidimensional crisis, has been exacerbated by the inability of the Muslim intellectual elites to revive and mobilize the Muslim community to address fundamental issues through their role of *ijtihad*

(independent reasoning). Hence, the ongoing crisis can essentially be considered a crisis of the intellectual elite (Hasnah, 2004; Chaney, 2016; Ashimi, 2016). Most of the energy of intellectual elites is spent on the struggle to protect texts and transmit them so that their authenticity is preserved and maintained. *Fiqh* (Islamic jurisprudence) and *ijtihad* (intellectual endeavors) have experienced a shift of orientation from efforts to understand Shariah's main purpose and intent toward efforts to understand technical provisions and products.

In such context, according to Umar Hasnah (2004), education, as an effort to understand the development of the ideal human being, needs to be the first and top priority to consider gravely. Unfortunately, there are still some fundamental weaknesses in contemporary Islamic education, among them include: (1) many intellectual elites are toiling with Islam's past legacies as they consider education reform would only be made possible by revisiting past models; (2) some intellectual elites are inclined to compare between materials acquired via Islamic sources and those acquired via Western sources by starting with the assumption that anything acquired from Islamic sources is much better; and (3) the absence of a futuristic horizon within Islamic education discourse (Usman, *et al.* 2022; Ismail Ali, 2004; Ismail Ali, 2014).

As a manifestation of academic study and "ijtihad" in Islamic education, several reference books can be used to analyze the conceptual features of Islamic education and their practical implications. According to Said Ismail Ali (2014), academic study is part of the "education modality" (*ra'su al-mâl al-tarbawî*) required to support efforts in nurturing students/learners, including those enrolled at Islamic higher education institutions (*Perguruan Tinggi Keagamaan Islam – PTKI*) (Amin Abdullah, 2017). Once academic studies are produced as reference books, then they will most likely be included within the category of "the ideal text", namely: texts that the readers consider a perfect revelation relating to a true perspective (Gracia, 1995) or authoritative perspective, which is then reproduced continuously. On this basis, Irsan al-Kilani (1987 & 1988) considers that many education study models are more likely to be limited to being characterized as descriptive, normative, and adoptive (Al-Qurtuby, 2021; Saparudin, 2013 & 2018). Reference books are part of the curriculum that presents cognitive and non-cognitive learning experiences (C. Ornstein *et.al.* 2011), and at the same time, contribute to the direction of students' intellectual preferences.

On that basis, the opinion suggesting that books play an extremely crucial role in affecting the mindset and behavior of their readers is quite reasonable, as we can see in (1) a historical study by way of a literature review about the significant role that references books have in Indonesia (Kosim, 2006), (2) a study on reference books to question issues of humanism and Islamic education (Usman, *et al.* 2017), and (3) a study on the use of reference books by students greatly affects the quality of the writing or work they produce. Reference books are considered a source of information that has high accuracy and accountability (Prajawinanti, 2020). The study of reference books is useful for photographing the general trend of scientific reasoning in the field of Islamic education. Based on that, it can be projected the direction of the dynamics in the future and can be analyzed the influence of Islamic scientific tradition behind it. However, reference books are one of the anchors of the development of Islamic educational disciplines in a region.

## 2. Methodology

This article is the result of a literature study that requires philosophical and theoretical analyses. Philosophical and theoretical analyses were conducted through textual analysis, then confirmed via in-depth interviews with the users (lecturers) in order to identify and analyze the typology of Islamic education reference books written by experts in Indonesia, by focusing on reference books on Islamic Education Science (IES) and Islamic Educational Philosophy (IEP). In the current research, the Islamic education books analyzed were written by Ramayulis, Tafsir, Abuddin Nata, and Abd. Rachman Assegaf. Their selection was based on: (1) the use of those books in lecturers' semester learning plan (*rencana pembelajaran semester – RPS*) (IEP & IES *RPS Documents*, 2021). and (2) whether the reference books are referred to by other Islamic education literature. Textual analysis was conducted by using the following stages: (1) fixating (determining) the definition of texts, (2) restricting the influence of self-subjectivity, (3) text interpretation in its entirety by understanding the inherent interconnection of meanings, and (4) exploring the possibility of multiple interpretations of texts (Moustakas, 1994). In addition to textual analysis,

data were also explored by conducting interviews during focus group discussion (FGD) sessions with lecturers in charge of IE/IEP courses at PTKI and comparing them to the RPS documents.

### 3. Results and Discussion

#### 3.1. *The Spectrum of Islamic Tradition of Knowledge in Indonesia*

In Indonesia, there are at least three Islamic traditions of knowledge, namely the normative, the ideological, and the scientific (Kuntowijoyo, 2001). The normative tradition may include declarative and apologetic. The declarative normative tradition is oriented toward efforts to showcase Islam's superiority and *da'wah* zeal, while the apologetic normative tradition is oriented toward defending a discredited Islam caused by misunderstandings. However, since the Muslim community remains troubled by an inferiority complex, a prominent proclivity observed in this tradition of knowledge is its reactive and finalistic character, wherein the logic/ reasoning developed is more toward *jadali* (dichotomy, normative-deductive, justification, dogmatic) instead of *bahtsi* (dialogical, empiric-inductive, verification, rational-critical) logic. As for the ideological tradition of knowledge, it is meant to bring Islam forth as an alternative ideology. Islam is considered complete, final, and comprehensive, keeping in mind that all that is required to create a society or even a civilized nation, wherever and whenever, can be found within Islam in various formulas and solutions.

The scientific tradition is a trend in Islamic traditions of knowledge that applies the empirical or philosophical approach, thereby resulting in products of studies that are deemed compatible with scientific findings and modernity. The concept of circular relations between *hadlârat al-nash* (civilization of text), *hadlârat al-'ilm* (civilization of scientific knowledge), and *hadlârat al-falsafah* (civilization of philosophy) is a concrete manifestation of the scientific tradition (Amin Abdullah, 2020). In the context of education, this tradition can be seen in the manifestation of progressive Islamic education that seeks to bridge the gap between Islam, Indonesianness, and modernity, like the Muhammadiyah Islamic Organization (Suyatno *et al.* 2021). As an expanded realization of the scientific tradition, the prophetic science tradition, which is committed to humanization, liberalization, and transcendency, has been developed (Kuntowijoyo, 2001; Ahimsa-Putra, 2017). This tradition carries the following key agendas: theorization, structurization, and transformation. According to al-Mustiri (2014), one of the most crucial elements required by the Islamic tradition of knowledge and thoughts today is a comprehensive perspective that allows Islam to accurately identify various contemporary issues, for overcoming the epistemological crisis, i.e., the tradition of inquiry fails to make progress through original standards of rationality (Ernst and Martin [eds], 2010).

#### 3.2. *A Sketch of the Contents of Islamic Education Reference Books*

##### 3.2.1 *Ilmu Pendidikan Islam* by Ramayulis

Regarding the foundations of Islamic education, Ramayulis (2002) mentions two types of bases, the ideal and the operational. The ideal basis of Islamic education refers to the basis of Islamic teachings, which are sourced from the Qur'an, the hadith of the Prophet, opinions of the Companions, and Ijtihad. The sequence of ideal basis he asserts, has numerous similarities with the basic formulation of Islamic law agreed upon by the majority of the ulama of *ushûl al-fiqh* (the scholars of Islamic jurisprudence). In other words, the development of Islamic education science has a similar pattern to the development of *ushûl al-fiqh*.

Consequently, as part of religious sciences, this implies that Islamic education science is developed under the three scientific frameworks, i.e., *aqidah* science (theology), *sharia* science, and *akhlâq* science (al-Amilî, 2005). Since Islamic education science largely deals with human behaviors, it is classified under the framework of *Sharia* science and *akhlâq* science (Ethics). According to Wahbi al-Amili (2005), religious sciences can be developed through reasoning or texts that produce true knowledge about religion or its basic principles. Given such a development model of religious sciences, Islamic education science is not considered much different from educational exegeses (*tafsir tarbawi*) and educational hadith (Roqib, 2009).



Ramayulis' book, which is still much cited (Eka Damayanti *et.al.* 2021), contains fifteen chapters of discussion with various other scientific disciplines such as education history, education management, and educational psychology. Given such topics of discussion, it seems that Islamic education science is elaborated as an "eclectic" field of science, which is a field that combines various relevant and functional elements of other diverse scientific disciplines. On account of its assumably eclectic feature, (Islamic) education science is often considered an indefinite field or a scientific discipline that has yet to mature. Actually, the eclectic feature is not only found in (Islamic) education science, it can also be found in other scientific disciplines, e.g., sociology, anthropology, psychology, and so forth. However, an eclectic feature unaccompanied by clarity in its scientific formulation, on account of being satisfied by merely *citing quotes here and there*, may often obscure its status as an independent scientific discipline.

### 3.2.2 *Ilmu Pendidikan Islam dengan Pendekatan Multidisipliner* by Abuddin Nata

In the introduction chapter, Abuddin Nata (2010) admits that Islamic Education Science (IES) is a newcomer in the Islamic Studies cluster. Its presence was brought to the forefront at the start of the 20<sup>th</sup> century when a strong awareness of the importance of the development of quality Islamic education and all its aspects started to emerge. As a new field of Islamic studies, IES still continues to be revised and perfected toward a robust and comprehensive construction that can be accounted for by the scientific community. In the early 2000s, academic studies on IES and all its aspects began to be conducted by experts using various perspectives of knowledge. As a newcomer, the presence of IES still had its weaknesses which among them include its scope of discussion, analyses, and systematics. Additionally, there is still incoherence in looking at the foundational concept for developing IES, i.e., between the concept of education and the concept of pedagogy (Nata, 2010). Under the former concept, the development of (Islamic) Education Science would lead to a scientific discipline that is open, flexible, and needs to be continuously redefined. Whereas under the latter, the development of (Islamic) Education Science would head toward a scientific discipline that is limited, concentric, and requires constant deep explorations. Nata's book was developed from a combination of the concept of education and pedagogy.

In brief, Islamic Education Science (IES) is defined as a study of educational processes that are based on the philosophical values of Islamic teachings grounded on the Qur'an and Hadith of the Prophet (Nata, 2010). Given this definition, Nata underscores three key aspects, namely (1) the development of IES based on the combination of the concept of education and the concept of pedagogy, (2) its alignment with the noble values of the Qur'an and Hadith, and (3) IES is not an exclusive and static scientific knowledge (Nata, 2010). IES's scope of discussion covers: (1) theories and concepts required to formulate Islamic education design and all its various aspects and (2) theories and concepts required for the interest of education practices. As an applied science, the development of IES theories originates from philosophical, theoretical thoughts, and empirical studies in education practices (Nata, 2010).

### 3.2.3 *Filsafat Pendidikan Islami* by Ahmad Tafsir

Unlike typical philosophy books, descriptions of Tafsir's book are presented using simple language, making it relatively easy to digest. Based on the title of the book, it is apparent that the author prefers to use the term Islamic (*Islami* in Indonesian), instead of Islam to refer to its values and nature) educational philosophy because what he wrote was indeed originally from the results of his reflections guided by the teachings of Islam (Tafsir, 2012). The content covers ten chapters of discussion, and it was not arranged in a similar structure to discussions of educational philosophy. At the beginning of the book, the author outlines the differences between the discursive scope of education science and that of educational philosophy. Education science relates to studies on rational education issues that are supported by empirical evidence, while educational philosophy refers to studies of rational or abstract issues about education (Tafsir, 2012).

Tafsir sees Islam as a system affirming that the teachings of Islam are perfect (comprehensive) and integrated so that there is no room for criticisms and revisions. There are at least 3 (three) principles he suggests regarding gender in Islam, namely (1) the concept of pairs, (2) the concept of gender may change, and (3) the concept of justice (Tafsir, 2012). The view of Islam as a system has been voiced by many other Muslim figures, among them

include Sayyid Qutb, Muhammad Qutb, Said Hawwa, and Muhammad Imarah. However, their elaborations regarding the system concept have some differences. By using the system concept, some figures intended to affirm the exclusivity of Islamic teaching's perfection, even pushing the othering concept (F. Akhtar Lubis and Zohkarnain, 2023), which is ready to be applied entirely, not partially. The issues confronted by the Muslim community have not been properly resolved because they are only willing to carry out Islamic teachings regarding rituals (worship).

### 3.2.4 *Ilmu Pendidikan Islam Madzhab Multidisipliner* by Abd Rachman Assegaf

As asserted by the author at the beginning, this book is a follow-up to his previous work titled *Filsafat Pendidikan Islam: Paradigma Baru Pendidikan Hadhari Berbasis Integratif-Interkonektif* (Assegaf, 2019). In the previous book, the author discusses the development of integration-interconnection-based Islamic educational philosophy. While in this book, the author discusses the development of Islamic education based on the paradigm of multidisciplinary science, which is a follow-up to the integration-interconnection paradigm (Assegaf, 2019). There are two interesting points to consider, namely (1) this Islamic Education Science book is written as a follow-up to the Islamic Educational Philosophy book, and (2) the multidisciplinary paradigm is used as a more advanced development of the integration-interconnection paradigm.

Regarding the number of pages, *Ilmu Pendidikan Islam Madzhab Multidisipliner* consists of more than five hundred pages, enabling it to provide extensive discussions and making it worthy as a follow-up to the previous book, which has fewer pages. However, placing the book on Islamic Education Science as a follow-up discussion to the book on Islamic Educational Philosophy seems to be a bit erratic. This is because it indicates overlapping discussions or unclear distinctions between the scope of study in Islamic education science and Islamic educational philosophy. Accordingly, it is not uncommon for lecturers in charge of the Islamic education science/philosophy course to argue that "so far, the discussions in Islamic educational philosophy (IEP) and Islamic education science (IES) are considered nearly similar, so they should just be combined" (*Interview* during FGD 13-14 Oct 2021). Nonetheless, the paradigmatic development from integration-interconnection toward multidisciplinary is something that should be appreciated. Here, Assegaf suggests a critical discourse that is corroborated by various acute issues confronted by the Muslim community, such as secularization and dichotomization of science.

### 3.3. *Views of Lecturers at Islamic Higher Education Institutions (PTKI) on the Reference Books*

The significance of these reference books is defined by their extensive use and benefit in lectures and scientific writing. Several reasons underlie the utilization of these books, which broadly cover: practical and academic reasons. Some lecturers have their reason for using the reference books based on the consideration that they have encyclopedic discussions, i.e., covering nearly all the topics of discussion in the course, albeit only with briefly elaborated discussions (*Interview* during FGD 13-14 Oct 2021). This practical reason shows that lecturers are in need of a "guide" in delivering the topics of their course materials so that they are more structured and systematic. Hence, these reference books play a role in constructing the logical sequence of IEP/IES course materials (*Lesson Plan Documents* of UIN Surakarta, IAIN Salatiga & UNIDA Lamongan).

Another practical reason is that the discussions in the reference books are easy to understand. This is considered a crucial point, bearing in mind that philosophical contents are commonly perceived as being cumbersome and complicated and that they need to be simplified. As references for students, simplification is indeed deservedly required. But as references for lecturers, simplification should be less necessary as it may lead to reduction and cutting down of the perspectives. One of the simplifications observed is the lack of clear limitations between the scope of materials in Islamic educational philosophy and Islamic education science (*Interview* during FGD 13-14 Oct 2021). When the scope of Islamic educational philosophy (IEP) study also includes the scope of materials in Islamic education science (IES), it is more likely for IEP to simplify discussions on fundamental issues into operational issues, and theoretical issues into technical ones.

Meanwhile, the academic reason that underlies choosing these reference books is that they contain discussions on globalization, Indonesian-ness, and contemporary issues (*Interview* during FGD 13-14 Oct 2021). IEP/IES should

not only contain studies on the thoughts of Muslim figures, but they should also have analyses and reflections on various actual issues relating to Islamic education (*Lesson Plan Document* of IAIN Salatiga). Conceptually speaking, the five pillars of Islamic educational philosophy, as suggested by Jalaludin (2017), seem to drive IEP studies to be more Islam-minded, i.e., developing deductive-normative reasoning by starting out with Islamic perspectives as postulates of study. The five pillars include (1) Islam's view of the universe, (2) Islam's view of the human being, (3) Islam's view of human knowledge, (4) Islam's view of society, and (5) Islam's view about morality. Given these five pillars, IEP studies become less open to external thoughts and less responsive to the dynamics of actual issues that constantly demand *tajdid al-fahm* (renewal of perception/understanding) in a continuous manner instead of *tajmid al-fahm* (a closed standardization of understanding).

Why have these five pillars of Islamic views made IEP less open? The reason is that, commonly, the five pillars of Islamic views assume a fixed and exclusive frame of mind when discussing issues relating to education. This is the relevance of the criticisms given by Haidar Bagir and Abshar Abdalla (2020) concerning the idea of Islamization and that they appreciate reintegration more, bearing in mind that the five pillars of Islamic views are more in line and closer with the perspective of Islamization that tends to prioritize the distinction (exclusiveness) of Islam and criticize external perspectives. This differs from reintegration, which attempts to engage Islam (views) in dialogue with other thoughts, including philosophy and science. Through reintegration, IES/IEPs are more open since their development is based on a mutually complementing nature between Islam, philosophy/science, and education, or the triadic concept, which refers to revelation, mind, and reality mutually complementing one another (Arif, 2019).

Specifically, regarding IES references, lecturers consider that the contents are still too general or still tend to be normative (*Interview* during FGD 14 Oct 2021). In order to address this gap, when using reference books, the lecturers encourage students to conduct case studies and write simple articles about actual issues occurring at school. This assessment is quite reasonable, keeping in mind that existing reference books on education sciences are often situated as being tugged back and forth between religion and science. The solid bases of normative arguments in the form of citations from Qur'anic verses and the hadith of the Prophet for elaborating on each topic of discussion indicate that Islamic education science is no different from religion. Nevertheless, theoretical analyses, along with the support of empirical data obtained from research results for explaining the certain topic of a discussion place Islamic education science as a scientific discipline that meets the scientific criteria.

### 3.4 Justificatory Reasoning of Islamic Educational Philosophy/Science Reference Books

#### 3.4.1 The Normative Tradition in Islamic Education Reference Books

Despite all their advantages and disadvantages, reference books are acknowledged as one of the main sources of learning. When using reference books, the lecturers usually go through an adaptation process, i.e., they try to take, select, develop, and correlate them with various other references (*Interview* during FGD 13 Oct 2021). Upon closer observation, the adaptation process shows that the reference books have at least been proven to contribute to defining the scope of discussions in course materials, selection of analytical methods, and appreciation of the developed scientific perspectives. This is the significance of the analytical preference of the contents in the reference books, which is for examining practical and theoretical actualizations.

The features of the contents in some of the IEP/IES reference books analyzed above can be elaborated in correlation to the inclination of Islamic thoughts in Indonesia. The reason for this is that the preference for the contents of the reference books is an expression of ideas led by the current spectrum of collective consciousness that affects the production of knowledge and individual thoughts. Kuntowijoyo (2001) suggests three traditions of knowledge in Indonesia: normative, ideological, and scientific. The normative tradition may include the declarative and the apologetic. The normative-declarative tradition is oriented toward efforts of showcasing Islam's excellence and a spirit of da'wah, while the normative-apologetic tradition is oriented toward a spirit of defending Islam that is cornered by "outsiders." The normative tradition follows an approach to knowledge that is textual, analogical, and externalization of Islam. Textual is defined as an approach that is *haul al-nash* (focused on texts), constantly starting with texts, toward texts, and within textual frames.

Upon analysis of the IEP/IES reference books described above, the main approaches (methods) they use broadly include (1) approach to revelation and (2) historical approach (Jalaluddin and Said, 1994). Based on that, it is quite reasonable for some lecturers to conclude that the reference books generally, apply a religious-rational approach (*Interview* during FGD 13/10/2021). Concerning the approach to revelation, all of the reference books we examined place the Qur'an and Hadith of the Prophet (revelations) as bases/sources (Nata, 2010). Why is the approach to the revelation that important? It is because thoughts/concepts derived from revelations are deemed to be absolute truth, regardless of time and space (Jalaluddin and Said, 1994; Tafsir, 2001). However, the approach model applied slightly differs; some places the Qur'an and hadith (revelations) as the "sole" source/basis because they argue that a source/basis should be something permanent, constant and because everything can be guided by the Qur'an dan hadith (Marimba, 1989; Nata, 2005), while some others place both (Qur'an and hadith) as the main source out of several other sources that need to be selectively considered (Nata, 2010; Tafsir, 2001; Assegaf, 2011).

According to the conclusion Muhaimin (2003) made, Islamic education thoughts have commonly, been categorized into two groups/streams, namely (1) the stream of critical thinking in education or the progressive school of thought and (2) the stream of conservative-traditional thinking. The implementation model of the two approaches constitutes one of the measures or benchmarks used to identify whether an Islamic education thought is included in the critical-progressive or conservative-traditional category. When applying an approach to revelations, the critical-progressive stream does not simply stop at a "textual" understanding that positions revelations (the Qur'an and Hadith) as authoritative references without the support of interpretation expansions based on critical analyses and empirical verifications. Contrastingly, the conservative-traditional stream tends to focus on preserving existing interpretations of the revelations (the Qur'an and Hadith); it even considers developing new interpretations unnecessary. So, not only are Qur'anic verses and Hadith considered authoritative references, but the ulama's interpretations are also considered sealed off from reanalysis.

The focus of (Islamic) education attention is the treasure of past thoughts. Still, it is not seen as a manifestation of historical-critical awareness but as a manifestation of an idealistic attitude instead. The centre of Islamic education's attention is the world of "text", both primary and secondary texts because the prescriptions for *anything* can be found in the texts without being aware of their limitations and making it less sensitive to empirical-contextual reality. Such tendency can be analyzed by using the argument posited by Ali Harb (2001), which states that one of the obstacles in the dynamization of thoughts is a human's "utopic" character, which can be observed when one judges a complex and dynamic empirical reality with a single perspective or with "lofty" values. Concerning the application of the historical approach, the critical-progressive stream does not limit itself to "Islamic history" as it also includes "non-Islamic" history. This stream also has no idealistic view of Islamic history, but it has an appreciative-critical view instead. Such a point of view considers Islamic history as a cultural phenomenon with its positives and negatives and that it should be examined.

The normative tradition is also characterized by Islamic externalization, which is the desire to showcase the superiority and excellence of Islamic teachings (doctrine), as observed in the clarification orientation (Ramayulis, 2002; Marimba, 1989; Jalaludin, 2017). The reasoning being used is clearly derived from the perspective of the "believer," not the perspective of the "analyzer," keeping in mind that the arguments and elaborations remain limited to the framework of building internal understanding (among the Muslim community), which occasionally seems apologetic or declarative (Silfia Ilma *et al.* 2022). Internally, IES/IEP reference books oriented toward Islamic externalization are generally no more than a form of Islamic indoctrination, both explicit and implicit. One of the lecturers in charge of the course asserted, "The references being used very rarely refer to Muslim philosophers, but more to the Qur'an and hadith" (*Interview* during FGD 13/10/2021). While externally, some of the reference books have a more a priori nuance against non-Islam, or at least that there is no "common ground" between Islam and non-Islam.

### 3.4.2 Reproductive Reasoning in IES/IEP Reference Books

The applicative model of Islamic education tends to be oriented toward standardization and immobilization of understanding (*tajmîd al-fahm*) and upholds a particular-exclusive Islam historicity. To date, such traditional pedagogy is considered the most dominant in affecting the development of education in Indonesia. It is apparent

from the conceptualization and theorization of Islamic education lacking empirical perspectives and practical orientations due to its strong textual-normative approach, as affirmed by one of the lecturers in charge of the courses that the topics discussed in IES books are still overly general and simply perusing the outer layers (*Interview* during FGD 13 Oct 2021). According to Ali Harb (2001), the dominance of the textual-normative approach is a part of the manifestation of the cultural narcissism that still plagues the Muslim community.

Similar to other established scientific disciplines, Islamic education stands as a top-verified scientific foundation and reflection of critical thoughts. Efforts to place Islamic education within the frame of epistemological relevance are by developing “discursive logic” (*al-manthiq al-bahstī*), i.e., Islamic education, both in theory and practice, is required to be willing to accept to be subject to reexamination, verification, study, and development, it is even required to be capable of promoting discursive activities. Discursive logic is a “right-wrong” logic, which is a mindset that is grounded on the ethos of seeking truth, but it must also deal with the fact that well-established *old traditions/paradigms* must be discarded when they are proven to be weak. This is different from the “dichotomy logic” (*al-manthiq al-jadali*), which is oriented at “winning-losing” or “friend-foe”. An ethos based upon such logic constitutes a desire to emerge as superior and a winner. However, it often gives the impression of being laden with truth claims, apologetic or even negating “others.” Meanwhile, sociological relevance implies the alignment of Islamic education with social demands; Islamic education is able to play a role in addressing social issues because Islamic education is not only a religious obligation, but it is also a social demand (S. Ismail Ali, 2014).

Islamic education needs to place the paradigm of critique as a basis of study and development not to lose its relevance. It seems that this paradigm has not been significantly appreciated by some of the Islamic education reference books examined (Ramayulis, 2002; Nata, 2010; Tafsir, 2012). The tendency to cite the opinions of numerous figures without any comparative or critical analysis implies that there is still a strong desire to reproduce existing thoughts. That, undoubtedly, goes against the philosophical reasoning model that requires critical analysis or even a radical analysis by deconstructing well-established thought constructs. Furthermore, there is a tendency to merely elaborate various opinions as if they were an authoritative reference, so the author hardly tried to contextualize or compare them with actual needs, which also reflects the mindset of the author who intends to maintain these various opinions without attempting to sort which elements remain “constant” and which elements change. The reference books still largely develop reproductive reasoning, which is commonly characterized by: (1) a lack of balance between cultural heritage along with the tradition of thoughts and their reformation; (2) dominance of the explanatory-reproductive method over the analytical-critical method; and (3) strong inclination toward the status quo (Hanafi, 2000).

In his book, Assegaf (2019) criticizes the problem of acute knowledge dichotomy experienced by the Muslim community. This critique is intended to function as an entry point to identify the weakness of the Islamic tradition of knowledge, which has been left behind in the development of science and technology due to its lack of appreciation for empirical-experimental studies. According to Assegaf, given an integrative-interconnective basis, it is high time that the deductive-legalistic and theological-normative model is combined with or supplemented by the inductive-empirical model so that scientifically speaking, Islamic education not only relies on textual interpretations but on results of empirical-experimental research as well. The integrative-interconnective basis actually has no desire for polarization or dichotomization in the development of Islamic education because, in reality, polarization and dichotomization will, in fact, restrict the development of Islamic education.

In his book, Nata (2010) elaborates on Islamic Education Science (IES) by using a legal approach. One of the sub-discussions is about the relationship between Education Studies and Legal Studies. However, the explanations seem to only look at the issue from the perspective of Islamic jurisprudence (*fiqh*), supplemented by citations of Qur’anic verses, hadith, and opinions of *fiqh* experts. It was not at all associated with any applicable judicial aspects (positive law), except in the closing section of the book, which mentions legislations issued by the government, such as the National Education System Law, Law No. 14 of 2005 on Teachers and Lecturers, and Governmental Regulation No. 19 of 2005 on the National Standard of Education (Nata, 2010), which regulates education provisions. Meanwhile, his descriptions of IEP and the philosophical approach (Nata, 2010) are more about the opinions of philosophers/streams of educational philosophy in the West and the Islamic world.

#### 4. Conclusion

To conclude, the advent of reference books serves as a primary benchmark concerning the extent that intellectual endeavors continue to progress. The reference books we examined are a part of the general trend of Islamic education literature that has not progressed much from the shadows of normative-reproductive reasoning, albeit in varying degrees. This is indicated by strong features of *textual*, *analogical*, and *declarative* discourses, leaving nominal room for empirical-contextual relevance, considering that the center of attention is on texts, past opinions/references, and the spirit to elaborate the superiority of Islamic norms. Consequently, the existing reference books have little appreciation for critical paradigm and empirical research, which is indicated, at the very least, by (1) a justificatory relationship model among reference books, (2) a normative approach to revelations, and (3) an idealistic historical approach. The views of some lecturers using the reference books affirm that these features are still found in the IES/IEP reference books as manifestations of shortcomings that need to be improved.

Given such tendencies, reference books are considered scarcely contributing to the process of Islamic education formulation and development. Innovative efforts to address stagnation have been done by some of the authors by responding to actual-Indonesian-related issues by strengthening an integrative-interconnective-based approach and multidisciplinary approach, which have started to encourage more endeavors for scientific development. However, they remain limited in generating a discursive chain effect. These innovative efforts are manifestations of growing awareness of various problems surrounding the Islamic education world.

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# Education Administration Using the New Normal and Quality Approach in the Suwannabhumi Prakan Secondary School Consortium under the Secondary Educational Service Area Office, Samut Prakan

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## Abstract

The purpose of this research was to 1) study the level of school administration using the new basic education and quality approaches in Suvarnabhumi Prakan, under the Samut Prakan Secondary Educational Service Area Office, 2) compare school administration using the new basic education and quality approaches in Suvarnabhumi Prakan, under the Samut Prakan Secondary Educational Service Area Office, classified by gender, age, education level, and work experience, and 3) gather suggestions, problems, and solutions for the development of school administration using these approaches in Suvarnabhumi Prakan, under the Samut Prakan Secondary Educational Service Area Office. The sample group for the research consisted of 254 teachers from Suvarnabhumi Prakan, under the Samut Prakan Secondary Educational Service Area Office. The research instruments used were questionnaires, with a reliability coefficient of 0.973, and interview forms. The statistics used for data analysis were the mean, standard deviation, and t-test. The finding revealed that: 1) The level of school administration using the new basic education and quality approaches in Suvarnabhumi Prakan, under the Samut Prakan Secondary Educational Service Area Office, was found to be high; 2) A comparison of school administration using the new basic education and quality approaches in Suvarnabhumi Prakan, under the Samut Prakan Secondary Educational Service Area Office, classified by gender, age, educational level, and work experience, showed no significant differences; 3) Regarding problem-solving guidelines for the development of school administration using the new basic education and quality approaches in Suvarnabhumi Prakan, under the Samut Prakan Secondary Educational Service Area Office, it was found that administrators, when making decisions, setting policies, or participating in planning, strive to allow personnel to express their views and participate in planning as much as possible. They ensure that their actions align with the context of each individual, the principles of correctness, and the policies and goals of the educational institution. Additionally, there is an emphasis on studying school data and analyzing key issues so that personnel, teachers, and students can gain a thorough understanding of the change process and the main driving factors for success.

**Keywords:** School Administration, New Approach, Quality Approach

## 1. Introduction

Quality and standardized education for the population is a crucial mechanism in driving national development. It also increases opportunities and equity in accessing education for all target groups of learners, which is essential in reducing inequality. The development of all educational institutions to achieve equal quality and standards, along with the establishment of support systems, encourages all capable and prepared sectors of society to participate in educational management. This includes creating a system to monitor key data related to educational institutions and learners, which is particularly important for institutions assisting children with special needs. Technology can be utilized to create equitable learning opportunities without limitations on format, time, or location. Reducing disparities in the quality and standards of educational institutions, promoting participation in educational management from all sectors, and encouraging the use of digital technology in education, as well as having accurate, complete, and up-to-date information systems, are all vital (National Education Plan 2017–2036: 119). This aligns with the National Education Act of 1999, Section 22, which states that education management should be based on the principle that every student can learn and grow, and students are the most important part of education. The method of education should help students perform their best and develop naturally and fully according to their potential, serving as a guideline for managing education to develop Thai people to keep up with the changes in today's world (Ministry of Education, 2007), especially in the context of the COVID-19 pandemic.

The spread of COVID-19 has impacted education management worldwide, causing many institutions to close. As the pandemic affected many areas, the education system had to adapt to ensure learning continued, as this affected the quality of students. This led to changes in learning management, new innovations, and the emergence of new learning and teaching methods, transforming the way students learn. Educational institutions and various learning sources at all levels are needed to adapt to the current situation and prepare for future challenges (Thuean Thongkaew, 2020). The COVID-19 pandemic has directly impacted education. The Office of the Basic Education Commission is committed to developing basic education to become "New Normal Quality Education," focusing on ensuring safety in educational institutions, promoting equal opportunities for quality education, and managing education efficiently. The policies for the 2021-2022 fiscal years address educational safety by reducing risks for both students and staff in schools. In terms of opportunity, the focus is on ensuring that every preschool child has access to education, with good physical, mental, disciplinary, emotional, social, and intellectual development according to their age. Measures are in place to ensure that children and youth complete their basic education with quality and standards. There is also a system to support learners in basic education to prevent them from dropping out, and to assist those who do, ensuring they receive quality and equitable basic education. In terms of quality, the emphasis is on providing education that equips learners with knowledge, learning skills, and essential 21st-century skills, ensuring they are good, disciplined, love the nation's core institutions, and have the right attitude towards the country. Learners are developed with competence and skills in reading, mathematics, higher-order thinking, innovation, science, digital technology, and foreign languages. Teachers and educational personnel are developed to be modern, capable of delivering competency-based curriculum, skilled in their duties, knowledgeable in digital technology, and committed to continuous professional development, along with having the spirit of a teacher.

Regarding efficiency, the focus is on improving management systems, using area-based innovations as the primary mechanism driven by accurate and up-to-date information systems, and encouraging participation from all sectors. Schools are developed to sustain quality aligned with their local contexts. Educational opportunity expansion schools are managed to ensure students receive quality education, while specialized educational institutions and schools in special areas are supported. The area-based education innovation system is promoted as a model for educational innovation development, increasing flexibility in managing basic education (Amphon Pinasak, 2020).

The Secondary Education Service Area Office of Samut Prakan is an agency under the supervision of the Office of the Basic Education Commission, Ministry of Education. Its duty is to implement the Basic Education Commission's authority by bringing the policy of developing basic education into "New Normal Quality Education," in line with the objectives of the Secondary Education Service Area Office of Samut Prakan. The focus is on developing the quality of learners at all levels, expanding access to basic education services, ensuring all learners receive opportunities for full development according to their potential, and improving the quality of

teachers and educational personnel. The management system is improved by raising the quality of education management in the Secondary Education Service Area Office of Samut Prakan concretely. The ultimate goal is to ensure that students have access to quality education according to educational standards (Samut Prakan Secondary Education Service Area Office, 2022).

Given the aforementioned context and issues, the researcher is interested in conducting a study on "School Management Using the New Normal Quality Education Approach in Suvarnabhumi Prakan Network, Secondary Education Service Area Office of Samut Prakan" to develop school management that is prepared for the current society, aligned with the future, and helps promote and enhance school efficiency.

## 2. Research Objectives

1. Study the level of school administration using the new basic education and quality approaches in Suvarnabhumi Prakan, under the Samut Prakan Secondary Educational Service Area Office,
2. Compare school administration using the new basic education and quality approaches in Suvarnabhumi Prakan, under the Samut Prakan Secondary Educational Service Area Office, classified by gender, age, education level, and work experience, and
3. Gather suggestions, problems, and solutions for the development of school administration using these approaches in Suvarnabhumi Prakan, under the Samut Prakan Secondary Educational Service Area Office.

The research on " Education Administration Using the New Normal and Quality Approach in the Suwannabhumi Prakarn Secondary School Consortium under the Secondary Educational Service Area Office, Samut Prakan. " was conducted as follows:

### *2.1. Step 1: Study of Education Administration Using the New Normal Basic Education Quality Approach*

The research methodology for this study involved the following steps:

**Target Group:** The target group consisted of 254 teachers from schools within the Suvarnabhumi Prakarn Educational Network, under the Secondary Educational Service Area Office Samut Prakan, for the academic year 2023.

**Research Instrument:** The research instrument was a questionnaire divided into two parts:

- Part 1: Questions on the demographic status of respondents (multiple choice).
- Part 2: A 5-point Likert scale questionnaire on school management using the New Normal Basic Education Quality Approach, covering four key areas.

The instrument development and validation process was as follows:

1. Review of related literature, theories, and previous studies on school management models.
2. Analysis of school management using the New Normal Basic Education Quality Approach, which resulted in identifying four content areas.
3. Drafting of the questionnaire structure, divided into two sections.
4. Submission of the draft questionnaire to the research advisor for review, focusing on language accuracy, alignment with research objectives, and further suggestions for revisions.
5. Content validity testing of the questionnaire using the Index of Item-Objective Congruence (IOC) by three experts. All items had an IOC score between 0.60 and 1.00.
6. A try-out of the questionnaire was conducted with 30 teachers who were not part of the target group. The overall reliability of the questionnaire was calculated at .973.

**Data Collection Method:** A letter from the Faculty of Education and Liberal Arts at Suvarnabhumi Institute of Technology was sent to the school administrators within the Suvarnabhumi Prakarn Educational Network to request permission to distribute the questionnaires. The questionnaires were collected on the appointed date. Upon return, the questionnaires were checked for completeness and correctness before being analyzed.

**Data Analysis:** All 254 questionnaires were returned, representing a 100% response rate. Data were analyzed using a computer program.

- Part 1 of the questionnaire was analyzed using frequency distribution and percentage.
- Part 2 of the questionnaire was analyzed using mean and standard deviation. The rating scale interpretation was as follows:
  - Mean score between 4.51–5.00: Very high level of school management using the New Normal Basic Education Quality Approach.
  - Mean score between 3.51–4.50: High level of school management using the New Normal Basic Education Quality Approach.
  - Mean score between 2.51–3.50: Moderate level of school management using the New Normal Basic Education Quality Approach.
  - Mean score between 1.51–2.50: Low level of school management using the New Normal Basic Education Quality Approach.
  - Mean score between 1.00–1.50: Very low level of school management using the New Normal Basic Education Quality Approach.

## 2.2. Step 2: Suggestions and Solutions for Improving the New Normal Basic Education Quality Management

**Informants:** Three experts, selected based on their qualifications as school administrators, were from Bangpleeratrachbumrung School, Nawaminthrachinuthit Triamudomsuksapattanakarn School, and Pooncharoenwitthayakhom School.

**Research Instrument:** The research instrument was a structured interview, divided into two parts:

- Part 1: Demographic information of the experts.
- Part 2: Structured interview questions. The instrument development process included:
  1. Developing interview questions based on the lowest average scores from Step 1, resulting in 9 questions.
  2. Submitting the interview draft to the research advisor for review of language accuracy and content coverage, followed by necessary revisions and finalization.

**Data Collection Method:** Experts were personally contacted to arrange interviews and request their cooperation.

**Data Analysis:** The suggestions and solutions for improving the New Normal Basic Education Quality Management were analyzed and presented in essay form.

## 3. Research Findings Summary

Results of Data Analysis on Education Administration Using the New Normal Basic Education Quality Approach in Suvarnabhumi Prakarn Educational Network under the Secondary Educational Service Area Office, Samut Prakan:

Table 1: Mean, Standard Deviation, and Education Administration Using the New Normal Basic Education Quality Approach in Suvarnabhumi Prakarn Educational Network under the Secondary Educational Service Area Office, Samut Prakan (Overall and by Aspect)

Item	Education Administration Using the New Normal and Quality Approach in the Suvarnabhumi Prakarn Secondary School Consortium under the Secondary Educational Service Area Office, Samut Prakan.	Management Level			
		$\bar{x}$	S.D.	Level	Rank
1.	Safety	4.16	.33	High	1
2.	Opportunity	4.14	.40	High	3
3.	Quality	4.16	.34	High	2
4.	Efficiency	4.13	.35	High	4
<b>Total</b>		<b>4.14</b>	<b>.35</b>	<b>High</b>	

(n= 254)

From Table 1, it was found that the school management using the New Normal Basic Education Quality Approach in the Suvarnabhumi Prakarn Educational Network under the Secondary Educational Service Area Office, Samut Prakan, is at a high level overall ( $M = 4.14$ ,  $S.D. = .35$ ). When considered by individual aspects, it is also at a high level in all areas, ranked from highest to lowest mean scores as follows: Safety ( $M = 4.16$ ,  $S.D. = .33$ ) Quality ( $M = 4.16$ ,  $S.D. = .34$ ) Opportunity ( $M = 4.14$ ,  $S.D. = .40$ ) Efficiency ( $M = 4.13$ ,  $S.D. = .35$ )

#### 4. Research Findings

The research findings reveal the following:

1. **Data Analysis for Comparing School Management Using the New Normal Basic Education Quality Approach in the Suvarnabhumi Prakarn Educational Network under the Secondary Educational Service Area Office, Samut Prakan, Classified by Gender, Age, Educational Level, and Work Experience:**

- 2.1 **Comparison of School Management by Gender:** It was found that teachers of different genders have similar opinions regarding school management using the New Normal Basic Education Quality Approach in the Suvarnabhumi Prakarn Educational Network under the Secondary Educational Service Area Office, Samut Prakan, both overall and in individual aspects.

- 2.2 **Comparison of School Management by Age:** It was found that teachers of different ages have similar opinions regarding school management using the New Normal Basic Education Quality Approach in the Suvarnabhumi Prakarn Educational Network under the Secondary Educational Service Area Office, Samut Prakan, both overall and in individual aspects.

- 2.3 **Comparison of School Management by Educational Level:** It was found that teachers with different educational levels have similar opinions regarding school management using the New Normal Basic Education Quality Approach in the Suvarnabhumi Prakarn Educational Network under the Secondary Educational Service Area Office, Samut Prakan, both overall and in individual aspects.

- 2.4 **Comparison of School Management by Work Experience:** It was found that teachers with varying work experience have similar opinions regarding school management using the New Normal Basic Education Quality Approach in the Suvarnabhumi Prakarn Educational Network under the Secondary Educational Service Area Office, Samut Prakan, both overall and in individual aspects.

2. **Summary of Suggestions and Solutions for School Management Using the New Normal Basic Education Quality Approach in the Suvarnabhumi Prakarn Educational Network under the Secondary Educational Service Area Office, Samut Prakan:**

The researcher compiled the results of the analysis by aspect and developed specific points for interviewing three administrators. The outcomes of the interviews with the school administrators are summarized as follows:

The schools in the Suvarnabhumi Prakarn Educational Network receive policies from the Secondary Educational Service Area Office, Samut Prakan. Therefore, in decision-making or formulating certain policies, as well as in planning and operational practices, administrators strive to ensure that personnel can express their opinions and participate in planning to the greatest extent possible, suitable to the context of each individual while adhering to the principles of correctness. This is in line with the policies and goals of the educational institution. They study the school's data and analyze key issues to ensure that personnel, teachers, and students have knowledge and understanding of the processes of change and the main driving factors toward success. They provide training for personnel development, impart knowledge about school management, and serve as good role models to promote efficiency in all areas.

#### 5. Discussion of Results

**Objective 1:** To study the level of school management using the New Normal Basic Education Quality Approach in the Suvarnabhumi Prakarn Educational Network under the Secondary Educational Service Area Office, Samut Prakan.

1. **Safety:** Overall and in each aspect, the level is high. This may be attributed to the administrators establishing committees and staff to monitor safety during operations in various school departments, as

well as providing security personnel for learning activities and organizing safety activities in the school. This is in line with the research conducted by Adisorn Deepanatham (2018), which studied the development of a participatory safety management model in schools under the Office of the Basic Education Commission. The findings showed that: 1) The current state of participatory safety management in schools is high overall; 2) The participatory safety management model comprises four aspects: (1) measures for preventing and resolving accidents in schools; (2) measures for preventing and addressing disasters in schools; (3) measures for preventing and addressing social issues; (4) measures for maintaining health security for students; 3) The participatory safety management model has been evaluated and endorsed by experts who participated in the second group discussion, confirming that the model is effective and can be applied in real situations.

2. **Opportunities:** Overall and in each aspect, the level is high. This may be because the administrators have developed a student support system in basic education and have opened opportunities for parents to participate in planning, supervising, monitoring, and evaluating to improve the student support system. This is consistent with the research conducted by Priyapat Srikhai and Thiraphat Thin San Dee (2022), which studied the management of student support systems in the New Normal era by school administrators at the Quality Development Center for Basic Education in Muang Sripheu, under the Primary Educational Service Area Office in Roi Et, District 2. The findings showed that: 1) The management of student support systems in the New Normal era is high overall; when considering each aspect, the ranking from highest to lowest average includes: screening, understanding individual students, prevention and resolution of issues, promotion and development, and referrals.
3. **Quality:** Overall and in each aspect, the level is high. This may be due to the administrators implementing policies to promote education that equips students with knowledge, learning skills, and essential 21st-century skills to enhance their competitiveness and choices for further education, while organizing practical learning processes. This aligns with the research conducted by Somsri Krenjathi (2017), which studied the school management model for developing student quality to possess desirable characteristics in the 21st century. The research found that, overall, the quality is high, with most aspects rated highly. The structural components included five aspects: the establishment of a management and organizational development system with participation from all sectors; the development of curricula and learning processes based on research; efficient resource and budget management; learning management that equips students with technological and communication competencies; and the development of information systems for resource and budget management, as well as promoting and supporting collaboration in academic development and learning resources, creating and providing media, innovations, and technology, and organizing integrated learning activities to develop 21st-century skills.
4. **Effectiveness:** Overall and in each aspect, the level is high. This may be because the administrators set policies and development plans that align with the school's curriculum and implement diverse management methods according to the school context. This corresponds with the research conducted by Natphat Boonket (2022), which studied the management of learning in the New Normal era of educational opportunity expansion schools under the Primary Educational Service Area Office in Sukhothai, District 2. The findings revealed six aspects: curriculum management, evaluation of learning outcomes in the New Normal, teaching and learning management, new resource management according to new priorities, teacher development, and listening to feedback from teachers, parents, students, and the community.

**Objective 2:** To compare the management of schools using the New Normal Basic Education Quality Approach in the Suvarabhumi Prakarn Educational Network under the Secondary Educational Service Area Office, Samut Prakan, classified by gender, age, educational level, and teaching experience.

From the research findings across all four areas, the results can be discussed as follows:

1. **Safety:** When classified by gender, age, educational level, and work experience, opinions on school management using the New Normal Basic Education Quality Approach showed no significant differences overall or in any specific area, which contradicts the hypothesis. This may be because teachers perceive that the administrators' approach to safety management is consistent. In the area of safety, administrators have implemented safety policies in schools and improved safety practices. This aligns with the research by Werasaning and Yuso (2011), which studied safety measures for students in primary schools under the Pattani Primary Educational Service Area Office 1. The findings revealed that: 1) Teachers with less

than 10 years of experience and those with 10 years or more did not differ significantly in their safety management practices across all six aspects; 2) Teachers in primary schools of different sizes showed no significant differences in safety management practices.

2. **Opportunities:** Classified by gender, age, educational level, and work experience, opinions on school management using the New Normal Basic Education Quality Approach showed no significant differences overall or in any specific area, which contradicts the hypothesis. This may indicate that teachers perceive the management of opportunities to be consistent across the board. In this area, administrators have implemented processes for screening students to promote educational equity and have encouraged activities that help students develop skills and qualities relevant to their career paths. This is consistent with research by Priyapat Sriksai and Thiraphat Thin San Dee (2022), which examined student support systems in the New Normal era. The findings indicated that teachers' opinions regarding individual student recognition and screening did not differ significantly based on gender, educational level, and work experience.
3. **Quality:** When classified by gender, age, educational level, and work experience, opinions regarding the management of schools using the New Normal Basic Education Quality Approach showed no significant differences overall or in specific areas, contradicting the hypothesis. Teachers likely view the quality management approach as consistent. In this regard, administrators promote education that provides students with the essential knowledge for the 21st century and establish management structures to develop students' multiple intelligences while encouraging teachers and students to learn about innovations in science and digital technology. This aligns with the research by Sunisa Sangadsri (2022), which studied the management skills of school leaders that impact the effectiveness of schools in the Sakon Nakhon Primary Educational Service Area Office 1. The research found that: 1) The management skills of administrators, as perceived by both school leaders and teachers, did not significantly differ based on school size; 2) The effectiveness of schools, according to both school leaders and teachers, showed no significant differences based on position status, school size, and work experience.
4. **Effectiveness:** When classified by gender, age, educational level, and work experience, opinions regarding the management of schools using the New Normal Basic Education Quality Approach showed no significant differences overall or in specific areas, contradicting the hypothesis. This may reflect teachers' perceptions of the consistency in how school leaders manage educational effectiveness. In terms of effectiveness, administrators establish policies and curricula that are efficiently managed and create cooperative networks with both public and private sectors for information exchange to facilitate learning. This aligns with research by Sunan Rung-Aornsangthong (2018), which studied the efficiency of basic education management. The findings revealed that effective basic education management comprises five components: 1) Management; 2) Quality academic management; 3) Financial and resource allocation management; 4) Promotion of personnel for quality work; 5) Community relationship management.

**Objective 3:** Problems and Solutions in School Management Using the New Normal Basic Education Quality Approach in the Suvarnabhumi Prakarn Educational Network under the Secondary Educational Service Area Office, Samut Prakan.

From the interviews, it was found that schools in the Suvarnabhumi Prakarn Educational Network follow policies from the Secondary Educational Service Area Office, Samut Prakan. Therefore, when making decisions or formulating certain policies, as well as planning and implementing various practices, administrators strive to involve personnel in expressing opinions and participating in planning. They aim to ensure that everyone has a voice in alignment with the context of each individual while adhering to the principles of correctness and the policies and goals of the educational institution. There is a process of studying school data and analyzing key issues to ensure that personnel, teachers, and students understand the processes of change and the main driving factors for success. Training sessions are organized to develop staff, provide knowledge about school management and serve as role models to promote efficiency in all areas. This is consistent with research by Walaya Saetang and Thawisit Kunnapha (2023), which studied the quality management of new learning approaches in schools under the Bangkok Primary Educational Service Area Office. The findings revealed the following:

1. **Planning for the Development of New Learning Quality:**

- Schools plan to adapt the quality of their curriculum by setting standards, goals, and creating flexible school platforms suitable for new learning management.
  - Schools adjust the learning calendar, teaching schedules, and lesson plans to be flexible and appropriate for diverse new learning methods.
  - Schools plan to promote, support, and develop teachers in areas related to materials, equipment, and skills necessary for new learning management.
  - Schools plan to adapt the use of information technology systems in new learning management.
2. **Implementation of New Learning Quality Development:**
    - Schools adopt various methods for new learning management.
    - Administrators or designated individuals are responsible for modifying supervision, guidance, monitoring, and evaluating the new learning management process.
  3. **Monitoring and Evaluating the Quality Development of New Learning:**
    - Schools monitor the changes in evaluation methods for both teachers and students and provide support for students.
  4. **Improving and Modifying New Learning Quality Development:**
    - Schools lead in creating a positive attitude among all parties, with management and teachers collaboratively addressing issues that arise that do not align with the planned framework.

The research findings on the management quality of new learning in schools under the Bangkok Primary Educational Service Area Office can be utilized to enhance future management quality in new learning approaches.

## 6. Summary and Recommendations

The research on school management using the New Normal Basic Education Quality Approach in the Suvarnabhumi Prakarn Educational Network under the Secondary Educational Service Area Office, Samut Prakan, revealed that overall practices are at a high level, ranked from highest to lowest as follows: safety, quality, opportunity, and efficiency.

1. **Safety:** The area with the lowest average score is the promotion of activities that enhance students' mental well-being and instill values of love, unity, and mutual support. Therefore, administrators should emphasize the importance of public-mindedness among students as a crucial trait that should be nurtured and practiced within the school. Organizing activities that foster students' public-mindedness is essential for their learning and for enhancing their personal development.
2. **Quality:** The lowest average score is associated with administrators providing consultation and suggestions for instructional activities. Thus, administrators should take their responsibilities seriously, show enthusiasm for their duties, listen to feedback or problems from subordinates, and involve stakeholders in evaluating performance to facilitate quality development.
3. **Opportunity:** The area with the lowest average score is the promotion and development of quality education for students with disabilities. Therefore, administrators should increase access for teachers, students, parents, and the community to services. They should encourage students to express problems and significant approaches to the school's operations, ensuring that the institution treats all students equally without discrimination.
4. **Efficiency:** The lowest average score relates to administrators following up on the production of learning materials to encourage teachers to produce high-quality learning resources. Administrators should modernize their operational systems, integrating technology and various innovations into school management to reduce unnecessary and outdated workloads and effectively manage existing resources.

## 7. Recommendations for Utilizing Research Findings

1. **Study Factors Affecting School Management:** Investigate factors that influence the management of schools using the New Normal Basic Education Quality Approach in the Suvarnabhumi Prakarn Educational Network. This will serve as a guideline for developing school management practices among administrators and cultivating a sense of responsibility in their work to achieve organizational goals efficiently.



2. **Examine Parental and Committee Perspectives:** Study the management of schools using the New Normal Basic Education Quality Approach in the Suvarnabhumi Prakarn Educational Network from the perspectives of parents or school committees. This can provide insights and feedback on school operations and enhance overall effectiveness.

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# Educational Evaluation and Professional Development of Teachers

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## Abstract

The purpose of this paper is to investigate the views of primary school teachers regarding the evaluation of their educational work. The main goal was to examine Primary school teachers' professional and training needs both for their development and improving quality of education. This is a comparative study exploring the views of teachers working in primary schools in Greece and Austria. To explore the above objectives, we examined the existing evaluation system in these two countries, the forms and criteria of teachers' evaluation and the impact of training programs on teachers' preparation. To conduct the research a qualitative approach was embraced. The research was carried out using semi-structured interviews with a sample of 10 teachers who were working in Primary education in Greece and Austria. The primary findings of this research revealed the significant influence of teachers' evaluation on their professional development both in Greece and Austria. Few teachers in our sample in Greece were against the use of evaluation for teachers' professional growth. Moreover, and according to the results of our study, the participation in training programs plays a pivotal role in enhancing and expanding the knowledge base of teachers both in Greece and Austria. The results showed the importance of training programs related to ICT, the usage of innovative and inclusive teaching methods as well as classroom management as some necessary actions for the effective use of evaluation targeting at the professional development of teachers.

**Keywords:** Educational Evaluation, Quality in Education, In-Service Training Programs, The Professional Development of Teachers

## 1. Introduction

In general evaluation and the criteria according to which teachers are evaluated it is the way according to which the educational system is assessed through time. According to this procedure and via the evaluation of teachers' professional work, an attempt is made to improve the quality of education. To be more precise, it has been noticed the conversion from summative or final evaluation to formative evaluation and the appraisal of teachers has been subordinated to their professional development. To date and according to the studies that have been conducted on an international level, the importance of evaluation has been examined on institutional manners and according to its necessity. Evaluation monitors the progress according to the achievements and the desired goals and objectives that have been set by the school unit. Moreover, assessment is a process that has been centered according to all the improvements whether we are talking about the quality of education or the effective faction of schools. Briefly

evaluation policy makers and researchers emphasize on school evaluation since it focuses on the quality control of the provided education, the quality assurance and the development of both teachers and students through the exploitation of evaluation practices. Therefore, evaluation has been presented as an important process with multiple purposes. The most significant are related to administrative and pedagogical improvements. Evaluation is, therefore, linked to improvements related to the quality of education provided by the assessment of all aspects of schools and its impact on the development of the educational system in total (Shamsa et al., 2018).

In similar terms, in-service training programs are integrated into lifelong education and professional development that aim to meet the educational needs of teachers. To put it in another way, in-service training programs called to fill the gaps of the initial university education and reorganize the acquired knowledge (Sakkoulis et al., 2017). In this paper, we briefly provide information related to the research study, the necessity of the study and information about previous studies. The paper is followed by the setting of the research questions and the methodology that we adopted, the presentation and analysis of data and the discussion of the results.

## 2. Theoretical Framework

The conduct of this research is considered important since it has been found from our analysis that most of the studies in Greece and Austria focus on the professional development of teachers through training and not through evaluation. To put it another way, the already existing studies focus on the in-service training programs for the professional growth of teachers and not the knowledge and feedback that teachers can receive from the evaluation process. Therefore, the significance of this study arises from the absence of comparable research that investigates the impact of evaluation on teachers' professional development.

Previous studies underscore the critical role of teachers, with their evaluation being a key process in determining the extent to which they acquire the knowledge and skills essential for the effective execution of their professional duties (Kassotakis, 2019; Kapsalis & Rambidis, 2006; Apostolopoulos, 2014). Specifically, the evaluation of a teacher's work is intrinsically linked to the functioning of the school unit and serves as a mechanism for collecting information about the teachers, their instructional practices, and the overall learning environment. The main purpose is to enhance the quality of education provided and to foster the professional development of teachers, who play a direct role in students' development (Kontoleon & Kyriakaki, 2023). Furthermore, consistent with the findings of prior studies (Jiang, Spote & Luppescu, 2015; Tuma, Hamilton & Tsai, 2018; Steinberg & Sartain, 2015; Taylor & Tyler, 2012), teachers' evaluation is closely tied to the feedback process, which is considered particularly valuable for improving instructional practices.

Evaluation, both in Greece and Austria, can take two forms depending on the role of the evaluator in each case. Specifically, evaluation is divided into internal and external, with the design of the evaluation procedure forming part of the annual collective planning of a school unit's educational work. This planning involves the setting of educational objectives, and the development of corresponding collective actions aimed at addressing various issues and ultimately improving the quality of educational delivery (Institute of Educational Policy, 2022; Federal Ministry of Education, Science and Research of Austria, 2021).

However, it is important to emphasize, that in Austria, evaluation falls under a broader framework of quality assurance in education. According to the German term *Qualitätsmanagementsystems für Schulen* (QMS), evaluation is a process of information gathering that does not solely focus on teachers but encompasses the entire school unit. The objective of evaluation is to set specific goals for managing the daily functioning of the school and fostering its development to ensure a higher-quality educational system. This is achieved under certain conditions such as the establishment of specific developmental goals by each school unit which are regularly assessed based on data that examines the achievement of these goals. A higher-quality educational system is subsequently distinguished by identifying the needs of teachers to promote their professional development and knowledge acquisition. Within this framework, the development of collaborative relationships and partnerships with internal and external stakeholders is encouraged to facilitate the active exchange of information (Federal Ministry of Education, Science and Research of Austria, 2021). Finally, the criteria used to evaluate teachers in both countries pertain to pedagogical and instructional functions, administrative duties and professional

development, which, in the case of Austria, is further supported through the cultivation of relationships with external organizations for the exchange of ideas among educators (Institute of Educational Policy, 2022; Federal Ministry of Education, Science and Research of Austria, 2021).

### 3. Methodology

In this research, a qualitative approach was adopted, utilizing interviews as the primary research tool. The interviews were conducted between December 2023 and January 2024. The research questions explored were as follows:

1. What are teachers' perspectives on the institution of evaluation?
2. Does evaluation contribute to teachers' professional development, and if so, how?

The sampling technique employed was purposive sampling. Specifically, the sample consisted of ten active primary school teachers from Austria and Greece. The selection criteria for the teachers included having undergone evaluation in their professional careers. More precisely, the sample was composed of five teachers from Austria and five from Greek primary schools, all of whom had been evaluated, held a master's degree, and had a minimum of two years of professional experience. The interviews were conducted online via Zoom, scheduled in coordination with the participants, and recorded with their informed consent.

For data analysis, qualitative content analysis was employed. The aim of the analysis was to uncover meanings related to the participants' views and their interactions within their respective educational environments. More specifically, we adopted the qualitative content analysis, which focuses on the characteristics of language as a medium of communication, emphasizing on the content or meaning of the text (McTavish & Pirro, 1990). In line with the qualitative nature of this study, we adopted a conceptual categorization approach for analyzing the interviews, guided by our research questions. After transcribing the interviews and converting them into written text, content analysis was applied, and the recording unit upon which the analysis was based was established. In this context, the sentence was chosen as the unit of analysis. Additionally, an inductive approach was employed to construct the conceptual categories, where categories emerged during the examination of the research data, aiming for direct alignment with the research questions (Patton, 2002). Finally, the codes derived from this process led to the formation of the final conceptual categories for our research.

The categories we established to present and analyze the data, as well as to address our research questions, are as follows:

1. Teachers' views on evaluation.
2. The contribution of evaluation to teachers' professional development and the improvement of student learning.
3. The role of training in teachers' professional development.
4. Proposed methods for enhancing teachers' professional development.

Finally, for the presentation and interpretation of the research findings, a comparative analysis was conducted between the data collected regarding the views of teachers in Greece and Austria on the role of evaluation and in-service training in their professional development. The results of the study were also compared with previous studies related to teachers' evaluation and training, as well as their significance to teachers' professional growth.

### 4. Presentation and Analysis of Data

The findings of our research indicate that evaluation positively contributes to the professional development of teachers in both countries. The sample teachers expressed their views as follows:

"I am in favor of evaluation because I believe it does not harm anyone, but rather contributes to our professional development. Evaluation motivates you to learn new things and keeps you alert." (P1)<sup>1</sup>

"My view of evaluation is positive. Evaluation helps me improve my teaching methods and adopt new techniques suggested by the school advisor." (P2)

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<sup>1</sup> The coding we selected concerns the educators in the sample from Greece and Austria, using Latin characters, which is followed throughout the flow of the research data. Latin letters and the number "x" represent the unique numeric code that corresponds to a specific educator each time.

"I believe teacher evaluation is quite important as it determines the quality of education and offers opportunities for improving student learning. Additionally, through evaluation, teachers acquire practical knowledge, which they might lack due to age...teachers should be evaluated." (L3)

It is also worth noting that the question regarding teacher evaluation had to be adapted to the existing quality assurance system in Austria. Participants in Austria indicated:

"Some teachers feel pressure... but through the quality assurance program, we set the goals each school wants to achieve during the academic year. This system helps schools develop. It was created because the state wants schools to progress with a clear purpose. Furthermore, I would say that the quality assurance system does not exclusively target teacher development but focuses on the school's overall growth, aiming to transform it into a modern organization that meets its students' needs." (K2)

"I believe it's a way for schools to continuously evolve rather than remain stuck in outdated practices. Schools work toward achieving higher quality goals, which they may not always meet but can always review to assess their progress." (P4)

The responses from both Greek and Austrian teachers reflect a shared recognition of the importance of evaluation and the feedback it provides for their professional development and the evolution of their teaching practices. This finding is consistent with the research by Sofou & Dieronitou (2015), which highlighted the positive impact of feedback on teachers' preparation. Similarly, Kirkilianidou & Konstantinou (2016) found that teachers in their study supported evaluation to improve and upgrade the educational system.

In Austria, our findings are corroborated by the research of Wiesner, Schreiner, Breit, & Lücken (2020), which classified evaluation as a process for achieving desired changes in school development. However, this contrasts with the findings of Brauckmann & Böse (2018), where teachers perceived evaluation as an intrusive measure. Additionally, a limited number of teachers in our study expressed challenges in utilizing the evaluation results, with statements like:

"Feedback from the evaluation may affect teachers. You try to correct the negatives, but we don't know how to utilize it." (P1)

"I'm not against evaluation, but sometimes it's difficult to make use of the results..." (P1)

Moreover, a group of teachers pointed to the deficiencies within schools in Greece and the conditions under which they are evaluated, expressing concerns such as:

"I am against the way evaluation is conducted today. I've been teaching for many years, but this is my first time being evaluated... Evaluation makes me anxious, and I'm not sure if the evaluator is the right person for the job." (P3)

"Evaluation is a waste of time. It causes anxiety to have an evaluator in the classroom, and school deficiencies are not considered during the evaluation process." (P5)

These findings align with the research by Moutzouri-Manousou & Daskalopoulos (2005) and Dounavi & Zbainos (2020), which revealed that teacher evaluation is often associated with stress and professional insecurity. Negative evaluations are seen as undermining teachers' capabilities. The same studies highlight the impact of inadequate resources on teachers' preparation for instruction.

Regarding the contribution of evaluation to professional development and student learning, most of the teachers in our sample held positive views. Specifically, they mentioned:

"Teacher evaluation by the school advisor allows teachers to learn more about new teaching techniques and better organize their lessons. As a result, teaching improves, and student learning outcomes also improve." (P5)

This finding is supported by the studies of Schildkamp, Visscher, & Luyten (2009), Taylor & Tyler (2012), Hallinger, Heck, & Murphy (2014), and Steinberg & Sartain (2015), which offer evidence that evaluation can enhance teachers' skills and, in the long run, improve student learning. However, a small group of teachers placed more emphasis on personal development rather than evaluation-driven improvement. One teacher stated:

"Evaluation has nothing to do with students. The evaluator was in the class for only two hours. I wouldn't change anything about my teaching just because someone observed me for two hours. Moreover, we are not able to put

everything we learn into practice, the feedback we get back. The evaluator doesn't have more knowledge, just more experience. It would be better to receive a piece advice rather than be evaluated." (P3)

Nevertheless, the research of Konstantinou & Konstantinou (2017) presents teacher development as a collective activity that can be achieved through evaluation. Similarly, Vergidis (2001) emphasizes the interdisciplinary and exploratory nature of evaluation, which not only focuses on individuals but also on educational programs and school units.

Additionally, the role of professional development in teachers' growth was examined. Greek teachers in the sample highlighted dissatisfaction as it concerns the training programs offered, with four out of five indicating that these programs do not meet their actual needs. They emphasized the role of the school principal in selecting training programs that align with the staff's needs. One teacher stated:

"Professional development is a concern. The programs are inadequate because they are not offered frequently enough in schools. It depends on how often the principal allows teachers to attend training programs. I'm not satisfied. The programs are outdated and irrelevant, ignoring topics like sexual education and digital skills." (P2) However, one teacher acknowledged the importance of introductory training, citing skills workshops as an example. These findings are consistent with the research of Asimaki, Mylonopoulou, & Vergidis (2016), who emphasized in the value of initial training for teachers' professional development, while also expressing dissatisfaction with the extent to which their needs were met. Our data confirmed that the respondents felt their training needs were only partially or not at all fulfilled.

In contrast, Austrian teachers expressed satisfaction with the variety and practical nature of the training programs available to them:

"I enjoy the training programs. Usually, you can immediately put everything you have learned into practice. I often link this knowledge to difficult classroom situations or students I had trouble collaborating with in the past and find immediate solutions." (L3)

"There's a wide range of training programs in Austria, so you can choose what suits you. As a result, 80%-90% of the knowledge you gain is quite practical and can be applied immediately in the classroom. Professional development is more practical than what we learned at university." (K2)

Finally, regarding teachers' suggestions for their professional development, Greek participants focused on training and lifelong learning, while Austrian teachers emphasized in peer collaboration and the development of collegial relationships. Teachers noted:

"I would suggest a source of information such as moving on with postgraduate studies. I am in favour of lifelong learning." (D3)

"I enjoy exchanging ideas with my colleagues. They know me well, as well as my teaching style. Their informed feedback, considering my personality, helps my professional growth. I like sharing ideas with them and learning from them." (P4)

"I would suggest exchanging information between colleagues and teachers from other schools." (K2)

## **5. Discussion-Conclusion**

The analysis of the research data revealed that evaluation contributes significantly to the professional development of teachers, findings that align with previous studies (Sofou & Dieronitou, 2015; Kirkilianidou & Konstantinou, 2016; Wiesner, Schreiner, Breit & Lücken, 2020). Teacher training also plays a crucial role in professional development, with participants in the sample placing particular emphasis on introductory training. This finding is corroborated by the research of Asimaki, Mylonopoulou, & Vergidis (2016). Additionally, teachers highlighted the importance of lifelong learning and the exchange of ideas among colleagues as contributing factors to their professional growth.

Evaluation and training are presented as the most prevalent forms of professional development, both of which play a decisive role in the advancement of teachers and, consequently, in improving student learning outcomes. However, we observed notable differences in the views of teachers from Greece and Austria, particularly regarding

the practicality of training programs. In Austria, the percentage of influence that training has on teachers' development appears to have a positive impact on their preparation. Conversely, while Greek teachers consider training as an essential part of educational activities for professional development, questions arise concerning the ability of training programs to meet their needs (Sakkoulis et al., 2017). Specifically, the Greek teachers underlined the need to set goals for improving training programs in order to provide knowledge that aligns with the contemporary challenges educators face. Teachers' training in Greece seems to be constrained by ineffective frameworks, as professional development programs are not offered frequently enough and are not linked to the actual needs of teachers.

With respect to identifying teachers' professional development needs, both groups underscored the necessity for programs that focus on the integration of technology into classroom instruction, the use of innovative and inclusive teaching methods, and effective classroom management. In conclusion, the evidence suggests that, under the right conditions, evaluation and training can serve as dynamic tools for teachers' professional development.

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# Teaching Behavior of Teachers in the Digital Age at Songvithaya Affiliated Schools

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## Abstract

The purposes of this research were to know 1) level of teaching behavior of teachers in the digital age at Songvithaya affiliated schools. 2) factors affecting the teaching behavior of teachers in the digital age at Songvithaya affiliated schools. 3) compare and contrast the teaching behavior of teachers in the digital age at Songvithaya affiliated schools, and 4) guidelines for correcting teaching behavior of teachers in the digital age at Songvithaya affiliated schools. The sample group used in the research was 169 teachers of Songvithaya-affiliated schools. The research tools were questionnaires and interviews. Statistics used in data analysis include frequency, percentage, mean, standard deviation, t-test, and one-way analysis of variance (One-way ANOVA). The results of the research revealed that: 1) the Teaching behavior of teachers in the digital age at Songvithaya affiliated schools overall and each aspect was at a high level; 2) Most of the factors affecting the teaching behavior of teachers in the digital age at Songvithaya affiliated schools were overall at a moderate level to consider individually. There were two items at a high level; 3) Comparison of teaching behaviors of teachers in the digital age at Songvithaya affiliated schools classified by gender, teaching experience in school, age, and grade level taught, and education level was not significantly different at .05; 4) The teachers have the guidelines for correcting teaching behaviors of teachers in the digital age at Songvithaya affiliated schools. For behaviors before learning and teaching, curriculum analysis, and indicators, the teachers design various assessments, and study standard indicators of learning subject groups, and should study to gain knowledge. The varieties of teaching techniques should be studied. Teachers' behavior during learning and teaching should be taught in the various ways. Teaching methods should be chosen as appropriate to the students following of situation and environment. Teaching and learning arrangements should be selected that are appropriate to the curriculum, indicators, course context, and learning subject groups. Teachers should emphasize the analytical thinking process. There should be analytical thinking and synthesize as appropriate for each age group. Teachers' behaviors after learning and teaching should be evaluated various forms of assessment. Evaluation should be organized in accordance with the goals of suitable for learning activities and students. The teachers focused on students being able to apply their knowledge and should be a focus on allowing learners to apply their learning in the meaningful ways and create knowledge on their own. Positive factors that affect teaching behavior are self-development, eagerness to learn, and learning and teaching. The negative factors are the teachers' welfare and well-being.

**Keywords:** Teaching Behavior, Teachers, Digital Age, Schools

## 1. Introduction

Teaching in the digital age integrates both traditional and modern approaches, creating a more holistic and dynamic educational experience. Teachers, therefore, need to continuously develop their teaching behaviors to stay relevant and effective in the digital era (Prasit Ongarttrakul, 2020). Teachers play a crucial role in the curriculum analysis process by fostering positive relationships with students, encouraging active learning where students actively participate in shaping content and learning activities, and designing an engaging learning environment (Chakkraw Kaewnamuang, 2017). Teachers must study the curriculum, plan, prepare content, choose suitable teaching methods, and use diverse assessment techniques aligned with students' contexts and the content (Kelly S. Meier, 2018). Multiple tools are essential in measuring and evaluating learning progress to support student development (Hannah Hawthorne, 2022). A teacher's expertise in any subject area significantly impacts student learning and contributes to students' motivation and engagement (Samar Chourasiy, 2022). Consequently, these factors can influence students' success or failure in their educational journey (Gabina Susuoroka, 2022).

This research examines various factors impacting teaching behavior among teachers at Songvithaya-affiliated schools. It investigates the process of lesson preparation, activities conducted during teaching, and the adjustments teachers make post-teaching to meet school objectives (Pichitra Thongpanich, 2019). These factors may determine the overall success or failure of teaching processes, as they affect students' learning outcomes. Learning is critical to students' lives as it lays a foundation for their future careers and personal growth. Furthermore, understanding these factors provides insights into areas where teachers can improve their teaching behaviors to support student learning. Therefore, this study aims to explore teaching behaviors in the digital age among teachers at Songvithaya-affiliated schools.

## 2. Research Objectives

1. To examine the level of teaching behavior of teachers in the digital age at Songvithaya-affiliated schools.
2. To investigate the factors affecting teaching behavior of teachers in the digital age at Songvithaya-affiliated schools.
3. To compare differences in teaching behaviors of teachers in the digital age at Songvithaya-affiliated schools, categorized by gender, teaching experience, age, grade level taught, and education level.
4. To explore guidelines for improving teaching behavior of teachers in the digital age at Songvithaya-affiliated schools.

## 3. Research Methodology

This research employed a quantitative approach with the following detailed procedures:

1. **Scope of Content:** The researcher examined theories and concepts from scholars on teaching behaviors, focusing on teacher behaviors before, during, and after teaching sessions.
2. **Population Scope:** The population for this research comprised teachers from three Songvithaya-affiliated schools during the 2023 academic year, totaling 316 teachers who were active up to the end of November 2023.
3. **Sample Group:** The sample included teachers from Songvithaya-affiliated schools teaching during the 2023 academic year. The sample size was determined using Krejcie and Morgan's table, resulting in 169 teachers from the three schools selected through simple random sampling.
4. **Sampling Method:** Stratified Sampling was used, dividing the population into strata based on relevant characteristics aligned with the study objectives. Within each stratum, teachers with similar characteristics were grouped, and random sampling was conducted within each stratum. The sample sizes in each stratum could be equal or unequal, depending on suitability.

#### 4. Research Instruments

The research instruments included a two-part questionnaire:

- **Part 1:** A checklist questionnaire on respondents' demographic information, covering gender, teaching experience in the school, age, grade level taught, and educational level. This section comprised 5 items.
- **Part 2:** A Likert Scale questionnaire on teaching behaviors, focusing on three areas:
  1. **Before Teaching**
  2. **During Teaching**
  3. **After Teaching**

This section consisted of 30 items using a 5-point Likert scale:

- **5** = Very high level of teaching behavior
  - **4** = High level of teaching behavior
  - **3** = Moderate level of teaching behavior
  - **2** = Low level of teaching behavior
  - **1** = Very low level of teaching behavior
- 
- **Part 3:** Guidelines for Improving Teachers' Teaching Behavior

#### 4. Development and Quality Assurance of Research Instruments

To create reliable research instruments, the researcher followed a systematic process:

1. **Review of Relevant Literature:** The researcher examined documents and related research studies, both domestic and international, focusing on teachers' teaching behaviors. This review provided a foundation for designing the questionnaire.
2. **Questionnaire Development:** The questionnaire was designed to cover three areas of teaching behavior: before teaching, during teaching, and after teaching, totaling 30 items.
3. **Expert Review for Validity:** The questionnaire was presented to the research advisor and thesis committee for content adjustments. To establish structural validity and content validity, five experts reviewed the instrument, including:
  - **3 Education Administrators:** Teachers with a Master's degree or higher
  - **1 Thai Language Expert:** Specialist in Thai language teaching
  - **1 Assessment and Evaluation Expert**

Each item's Index of Objective Congruence (IOC) was calculated, with ratings assigned as follows:

- +1: Item is clearly congruent
  - 0: Uncertain congruence
  - -1: Item is not congruent
- Items with an IOC score between 0.8-1.0 met the criteria and were deemed suitable for the sample group.
4. **Reliability Testing:** The revised questionnaire was piloted with 30 teachers from schools outside the sample group to assess its reliability. Cronbach's Alpha Coefficient was calculated to determine internal consistency, ensuring the questionnaire met reliability standards. Based on these findings, the questionnaire was further refined before data collection with the actual sample.

#### 5. Data Analysis Methods and Statistical Techniques

The data analysis for this study was conducted using the SPSS statistical software to ensure thorough and accurate interpretation. The statistical methods employed in this research included:

1. **Demographic Analysis:** Frequencies and percentages were used to analyze the demographic information of respondents, including gender, teaching experience, age, grade level, and educational level.
2. **Analysis of Teaching Behavior Before Instruction:** Mean and Standard Deviation (S.D.) values were calculated for individual items and overall aspects of teachers' behavior prior to instructional activities. Results were interpreted following Best's guidelines (Boonchom Srisakra, 2010: 121).

3. **Analysis of Teaching Behavior During Instruction:** Mean and Standard Deviation (S.D.) values were calculated for each item and aspect of teachers' behavior during instructional activities, with interpretation based on Best's guidelines (Boonchom Srisakra, 2010: 121).
4. **Analysis of Teaching Behavior After Instruction:** Mean and Standard Deviation (S.D.) values were calculated for each item and overall aspects of teachers' behavior following instructional activities. The interpretation followed Best's guidelines (Boonchom Srisakra, 2010: 121).
5. **Analysis of Factors Affecting Teaching Behavior:** Mean and Standard Deviation (S.D.) values were calculated for each item and overall factors influencing teachers' teaching behaviors. Results were interpreted using the following scale based on Best's guidelines (Boonchom Srisakra, 2010: 121):
  - **4.51 – 5.00:** Factor has a very high impact on teaching behavior
  - **3.51 – 4.50:** Factor has a high impact on teaching behavior
  - **2.51 – 3.50:** Factor has a moderate impact on teaching behavior
  - **1.51 – 2.50:** Factor has a low impact on teaching behavior
  - **1.00 – 1.50:** Factor has a very low impact on teaching behavior

## 6. Summary and Discussion of Research Results

### 1. General Information

Analysis of the demographic data shows:

- **Gender:** The majority of respondents were female (136 people, 80.47%), while males represented 19.53% (33 people).
- **Teaching Experience:** Most respondents had 1-10 years of experience (53.85%, 91 people), followed by those with 11-20 years (24.85%, 42 people), over 31 years (12.43%, 21 people), and 21-30 years (8.87%, 15 people).
- **Age:** The largest group was aged 31-40 (36.09%, 61 people), followed by 21-30 (26.63%, 45 people), 41-50 (20.71%, 35 people), and 51+ years (16.57%, 28 people).
- **Teaching Level:** Most taught kindergarten (26.04%, 44 people), followed by grades 4-6 (25.44%, 43 people), grades 1-3 (24.85%, 42 people), grades 7-9 (15.39%, 26 people), and grades 10-12 (8.28%, 14 people).
- **Education Level:** Most respondents held a bachelor's degree (93.49%, 158 people), followed by a master's degree (5.33%, 9 people), and higher than a master's degree (1.18%, 2 people).

### 2. Digital-Age Teaching Behavior

The teaching behavior of teachers at Songwit schools was overall at a high level in the digital age. Among the three stages:

- The highest was teaching behavior **during instruction** (mean = 4.46, S.D. = 0.47).
- The next highest was behavior **after instruction** (mean = 4.36, S.D. = 0.54).
- **Before instruction** had the lowest mean (mean = 4.34, S.D. = 0.46).

### 3. Factors Influencing Digital-Age Teaching Behavior

Overall, factors influencing teaching behavior in the digital age were moderate. The top three influencing factors were:

- **High teaching workload** (mean = 3.80, S.D. = 1.09).
- **Need for increased financial support from the school** (mean = 3.54, S.D. = 1.18).
- **High non-teaching workload** (mean = 3.10, S.D. = 1.30).
- The factor with the lowest mean was the need for teachers to develop effective communication skills with new-age students (mean = 2.67, S.D. = 1.19).

### 4. Comparison of Digital-Age Teaching Behavior

- **Gender:** No statistically significant difference (Sig. = .38) between male and female teachers' teaching behaviors.
- **Experience:** No statistically significant difference (Sig. = .06) in teaching behavior among different experience levels.

- **Age:** No statistically significant difference (Sig. = .32) in teaching behavior across age groups.
- **Teaching Level:** No statistically significant difference (Sig. = .25) in teaching behavior across teaching levels.
- **Education Level:** No statistically significant difference (Sig. = .09) across education levels.

#### 5. Recommendations for Improving Digital-Age Teaching Behavior

- **Before Instruction:** Teachers should analyze curricula, set learning objectives, and familiarize themselves with standards and indicators. They should also study diverse teaching techniques to increase their instructional efficacy.
- **During Instruction:** Teachers should adapt instructional methods to suit the learners, environment, and context of each subject area, focusing on analytical and critical thinking skills as appropriate for each age group.
- **After Instruction:** Teachers should apply diverse assessment methods aligned with the learning objectives and students' needs. Teachers should also encourage students to apply knowledge meaningfully and foster independent knowledge-building.

#### Influential Factors

Positive factors included self-development and a commitment to effective teaching (Jureeporn Munwi, 2022). Negative factors included inadequate teacher welfare and benefits, which impacted teaching behavior negatively.

### 7. Recommendations

From the study on teaching behaviors of teachers in the digital age at schools under the Tongsook Wittaya Network, the researcher offers the following recommendations as guidelines for teachers' teaching behaviors in the digital age, aiming to develop organizations that will enhance the effectiveness of those entities and serve as a guide for future research:

#### 1. Overall Teaching Behaviors in the Digital Age

- The study found that overall teaching behaviors of teachers were at a high level. However, when considering individual aspects, the average for pre-teaching behaviors was lower than for other areas, and the post-teaching behaviors had a lower average than the during-teaching behaviors. Therefore, it is suggested that:
  - Teachers should be given time to study and learn modern equipment and technology before implementing them in practice.
  - Schools should promote the production of modern teaching media and offer rewards to teachers who create innovative teaching materials.
  - Continuous training on the use of technology and equipment should be provided for teachers.
  - Schools should allocate more technological facilities to teachers, reduce their workload, and encourage them to utilize technology for convenience.
  - Support should be given for teachers to work in areas they are skilled in and passionate about.

#### 2. Factors Influencing Teachers' Teaching Behaviors

- The overall findings indicated a moderate level of factors influencing teaching behaviors, with 12 items ranking at a moderate level. The top three influencing factors were:
  - Teachers have a high workload related to teaching.
  - Teachers need more financial support from schools.
  - Teachers have additional work responsibilities beyond teaching.
  - The lowest average was regarding the need for teachers to develop effective communication skills with modern students. The researcher suggests:

- Reducing unnecessary workloads that do not align with teaching responsibilities, allowing teachers time to create engaging and modern teaching media.
  - Schools should provide budget support for technology, ensure comprehensive internet access, and supply modern teaching equipment to alleviate teachers' expenses.
3. **Approaches to Improve Teachers' Teaching Behaviors in the Digital Age**
- **Pre-Teaching Behaviors:** Teachers should analyze curricula and design clear and systematic assessment and evaluation plans. They should also study the standards and indicators of learning areas before teaching.
  - **During Teaching Behaviors:** Teachers should employ diverse teaching methods suitable for their students, context, and environment. They should also select teaching management strategies that align with the curriculum and learning indicators while emphasizing critical thinking processes suitable for different age groups.
  - **Post-Teaching Behaviors:** Teachers should use various assessment methods aligned with learning goals, suitable for learning activities and individual students. They should focus on enabling students to apply their knowledge meaningfully and develop their own knowledge.
4. **Positive and Negative Factors Affecting Teaching Behaviors**
- Positive factors influencing teachers' behaviors include self-development and a desire to learn. Teachers should serve as role models for students, continuously improving themselves in attitude, personality, dedication, and commitment to develop their knowledge to benefit their students fully.
  - Negative factors affecting teaching behaviors include teacher welfare and job security. It is essential to reduce workloads to prevent teachers from compromising their health and effectiveness, which can lead to inefficiency and ineffectiveness in schools. Promoting comprehensive and suitable welfare benefits is crucial.

## 8. Recommendations for Future Research

The researcher has proposed the following suggestions for future research to deepen knowledge and enhance the usefulness of studies in this area:

1. **Explore Teaching Behaviors in Other Areas:** Future research should investigate the teaching behaviors of teachers in the digital age across different aspects to synthesize clearer and more diverse variables.
2. **Developing Teaching Behaviors:** It is important to study ways to develop teachers' teaching behaviors to align with the challenges present in the digital age.
3. **Research in Different Regions:** Future studies should examine the teaching behaviors of teachers in different educational jurisdictions or areas.
4. **In-Depth Study of Influencing Factors:** Conduct in-depth research on each factor that influences teachers' teaching behaviors to promote students' learning skills in the digital age.

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# Mentoring in Kindergartens: Benefits for Newly Appointed Teachers, Mentors and Educational Organizations

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## Abstract

This research aims to investigate the perceptions of kindergarten principals in the regional unit of Thessaloniki regarding the expected benefits for newly appointed teachers, mentors, and educational organizations. By conducting qualitative research, the perceptions of 15 kindergarten principals were explored using the research tool of semi-structured interviews. The interviews revealed that the heads of nursery schools identified, as the most important benefits for newly appointed teachers, the improvement of teaching methodology and the widening of the circle of social contacts through the cultivation of communication skills, as well as the understanding of the formal and informal culture of the educational organization. The supervisors themselves as mentors value key benefits the enrichment of knowledge and the renewal of teaching methods as a result of their interaction with their mentors as well as the improvement of communication skills. For educational organizations, the benefits seem to be linked to the benefits of the mentored and relate to the functioning of the organization as a learning community, the achievement of objectives, and the improvement of the quality of the work produced, while the improvement of communication levels works to the benefit of working relationships between the parties involved.

**Keywords:** Benefits, Educational Organization, Kindergarten Principals, Mentor, Mentoring, Mentoring, Newly Appointed Teacher

## 1. Introduction

Mentoring in the sense of guidance has historically been an integral part of human development. Gabel-Dunk & Craft (2004) state that the concept of mentoring is first encountered in Homer's *Odyssey*, as Mentor takes on the task of guiding, inspiring, and empowering Telemachus, the son of Odysseus.

Although mentoring has traditionally been widely known in the business world, the rapid and diverse developments that are reshaping the contemporary educational landscape have made the need for professional support for teachers and thus their participation in mentoring processes, internationally, imperative. The involvement of teachers in programs based on interaction, collaboration and initiation into reflective techniques, to solve problems and not exclusively the sterile provision of knowledge (Aspfors & Fransson, 2015) contributes



to the personal empowerment of teachers as well as to their professional development. In the field of education, much of the research focuses on mentoring and supporting newly appointed teachers (Ingersoll & Strong, 2011), while some research focuses on the function of mentoring as a process of strengthening the role of the school principal (Waterman & He, 2011). Still, other researchers focus on the link between mentoring and the retention of new teachers in education (Matthews, 2015).

Initially, the research interest was oriented toward mentors (Chao, Walz & Gardner, 1992) but then turned to both mentors and educational organizations (Ensher & Murhpy, 2011). Although, evaluating the effectiveness of mentoring involves difficulties due to the various factors associated with it, such for example the context of implementation or the achievement of goals (Allen, Eby, Poteet, Lentz, & Lima, 2004), results of several studies report benefits for all parties involved: mentor, mentee and educational organization (Clark & Byrnes, 2011; Hudson, 2013; Koutsoukos, 2021).

In Greece, the initial training of newly appointed teachers was initially institutionalized in 1985, while in 2010 the institution of the mentor was officially established for the first time by law, which was updated in 2021, linking the role of the mentor with the smooth adaptation and support of the newly appointed teacher. Both laws remained inapplicable, and the mentor institution was inactive. The current legislation refers to the introduction of a pedagogical advisor-mentor in formal primary and secondary education to guide, motivate and support newly appointed (up to 5 years of service) teachers.

The criteria for the selection of the mentor by the Ministry of Education, based on the current law, exclude the assignment of the role to the head teacher of the school unit, while the size of the schools defined by law as needing the institution, (six or more classrooms) exclude kindergartens from involvement in mentoring practices since they are all two- or one-room school units and the head teacher/headmistress of the kindergarten cannot assume the role of mentor.

Given the increased scientific interest in mentoring in the field of education, in combination with the current legislation that indirectly excludes kindergartens from the framework of the institution, the present research focuses its interest on investigating the perceptions of kindergarten supervisors regarding the benefits of mentoring for newly appointed teachers, the mentors themselves, and educational organizations.

## **2. Theoretical Framework- Benefits of mentoring in Education**

### *2.1 Benefits of mentoring for newly appointed teachers*

The literature on mentoring in education identifies benefits for mentors on multiple levels (Langdon, 2011; Peterson et al., 2010). Some of the most important benefits that research reports concerning mentors relate to improving teaching practices as well as strengthening critical thinking (Amram & Davidovitch, 2024; Kozelková, 2024; Koutsoukos et al., 2021; Koutsoukos & Sipitanou, 2020; Alabi & Allayande, 2017) by utilizing the feedback capacity (Ehrich et al., 2004).

The research of Phillips & Fragoulis (2010), Fragoulis & Valkanos (2011), as well as the research of Koutsoukos (2021), refer to an improvement in problem-solving ability at a professional level. Findings on the other hand, reported in Achinstein & Davis, (2014) research relate to the seamless adoption of student-centered teaching methods by teachers who participated in mentoring programs, compared to more traditional past models, while research by Vanderburg & Stephens (2010) and Peterson et al. (2010) find benefits in improving the productivity and effectiveness of mentored teachers.

The expansion of the network of personal and professional contacts as well as the improvement of communication skills is mentioned as another benefit for the mentors (Koutsoukos et al., 2021; Koutsoukos & Sipitanou, 2020; Phillips & Fragoulis, 2010; Ehrich et al., 2004).

Other research data support that the finding that appears with the highest frequency relates to the enhancement of self-confidence which is an additional benefit that mentors gain from their involvement in mentoring processes (Kozelková, 2024 · Amram & Davidovitch, 2024 · Trikas & Kasimatis, 2020 · Quintana, 2014 · Bowman, 2014 · Marable & Raimondi, 2007). It is also found that involvement in mentoring processes contributes to the strengthening of their self-confidence and contributes to the effective management of the problems they face, as it provides them with the possibility of beneficially managing the difficulties of their daily work life (Fragoulis & Valkanos, 2011 · Darwin & Palmer, 2009).

Research by Scandura & Williams (2004) showed a negative correlation of anxiety with the adoption of mentoring techniques, arguing that participation in mentoring processes affects reducing levels of anxiety in the professional field. In contrast, mentoring was found to be positively associated with job satisfaction and organizational commitment of mentored individuals (Amram & Davidovitch, 2024; Scandura & Williams, 2004). Research by Amram & Davidovitch (2024) and Achinstein & Athanases (2005) argue that mentoring contributes to the process of mentors' understanding of the culture of the educational organization. This is assisted by improving their levels of socialization in the workplace.

However, since 1980, when mentoring became part of the integration programs of newly appointed teachers (Hobson et al., 2009), a large number of studies have focused on the association of mentoring with the smooth adaptation and integration of newly appointed teachers (Trikas & Kasimatis, 2020; Ingersoll & Strong, 2011). Ingersoll and Strong (2011) in an attempt to conceptualize the term mentoring, conclude that it is a mentoring provided by veteran teachers to younger teachers. Similar reasoning linking mentoring to newly qualified teachers is also concluded by Phillips & Fragoulis (2010) who argue that mentors may provide guidance to improve the teaching weaknesses of their mentees through the implementation of innovative teaching practices.

In a recent survey by Dalmatsou & Lazarakou (2024) of newly appointed teachers on peer mentoring, it is reported that the majority of newly appointed teachers consider the institution of peer mentoring to be a peer mentor with prerequisites of close age between mentor and mentee as well as hierarchical equality, would provide them with a benefit in terms of managing professional difficulties as it would direct the feelings of anxiety they experience in the early years of their careers. Similar findings seem to be reported in the research of Morettini et al. (2020), who argue that participation in mentoring processes acts helpfully in various fields, given the pervasive levels of occupational anxiety in the educational field.

Given that the professional development of newly qualified teachers in terms of knowledge acquisition and skill cultivation is an important pillar of learning outcomes (Darling-Hammond, 2006), the literature acknowledges the value of mentoring in preventing attrition among newly qualified teachers (Hobson et al., 2009).

Other research findings suggest that mentoring improves the new teacher's ability to commit to providing quality instruction to their students, and contributes to the use of effective teaching practices, while also contributing to improved student achievement (Ingersoll & Strong, 2011).

Duse, Duse, & Karkowska (2017) state that participation in mentoring processes for newly appointed teachers is an important field of professional action as it aims to keep new teachers in the field of education, due to dissatisfaction caused mainly by economic factors, there is a phenomenon of massive departures from educational organizations, internationally.

The derivation of professional satisfaction of newly appointed teachers from their involvement in mentoring processes is mentioned as a finding in a study by Spanorrrega, Tsiotakis, & Jimoyiannis (2018), while according to Trika & Kasimatis (2020), participation in mentoring processes helps the smooth integration of the newly appointed teacher in the school unit as it also contributes to his/her psychological, emotional, didactic and administrative support. Similar conclusions are confirmed by studies by Killion (2009) and Knight (2007). Moreover, participation in mentoring processes helps new teachers in their socialization process (Sinclair, 2003). In a recent study of novice teacher mentors in Israel, Amram & Davidovitch (2024) argue that engaging novice teachers in mentoring processes improves teaching practices, provides assistance in classroom management,

student assessment, professional identity development, stimulates a sense of efficacy, and has an improving effect on fostering relationships with students, while contributing to the retention of new teachers in the profession.

Makropoulou & Iordanidis (2016) in their research regarding the expected benefits of newly appointed teachers from the mentoring institution argue that newly appointed teachers are expected to experience rapid professional development and improvement in their communication skills along with the development of their sense of self-confidence.

The benefits of mentoring for newly appointed teachers according to Alabi & Allayande (2017) are identified in the encouragement of newly appointed teachers and the creation of an attractive model of teaching activity, factors that may contribute to the retention of newly appointed teachers in the educational field.

## *2.2 Benefits of mentoring for mentors*

The benefits of mentoring for mentors are related to the reciprocity of the mentoring relationship as well as its interactive nature (Jacobi, 1991). One of the most important benefits that mentors gain from engaging in mentoring processes is the improvement of their communication skills (Philips & Fragoulis, 2010) and the cultivation of an active listening factor that enables them to detect more effectively the needs of the mentored teachers (Philips & Fragoulis, 2010; Lopez-Real & Kwan, 2005). Moreover, it creates new support networks with other professionals in the field through collaboration (Koutsoukos & Sipitanou, 2020; Philips & Fragoulis, 2010; Ehrich et al., 2004).

Another notable benefit for mentors is the positive impact that mentoring has on their own personal and professional development (Lopez-Real & Kwan, 2005; Ehrich et al., 2004; Allen & Eby, 2003), while according to research by Koutsoukos, Fragoulis, Valkanos, Kyriatzakou (2021) the main benefit that mentors themselves gain from their participation in mentoring processes is continuous self-improvement, a finding that was also verified by the comparative study by Clarke, & Mena, (2020) with mentors from six countries.

Hudson (2013) points to the development of mentors' pedagogical practices as a benefit, while Amram & Davidovitch, (2024) and Mc Connell & Geesa, (2019) cite the mentors' reflection as a benefit, a process that redefines their perceptions regarding their teaching work and contributes to the cultivation of teaching skills. Still, scholars in the field, cite the development of leadership skills as a benefit for mentors (Hansford, Tennent & Ehrich, 2003).

The sharing of ideas and the enrichment of the mentors' knowledge through collaborative interaction with the mentors, who are a source of new ideas for them (Ehrich et al., 2004), is mentioned in the literature as an additional benefit that mentors gain. Moreover, interaction with mentors contributes to the renegotiation of the mentors' teaching mindset (Philips & Fragoulis, 2010), with Hobson et al. (2009) and Koutsoukos (2021) referring to a revitalization of their teaching willingness.

The benefits of mentoring for the mentors themselves still include the enhancement of their sense of personal satisfaction (Amram & Davidovitch, 2024; Shapira-Lishchinsky, 2012; Ehrich et al., 2004; Allen & Eby, 2003) with Allen & Eby (2003) arguing that the benefits of informal mentoring are greater. Kram (1985) on the other hand, finds that mentors' satisfaction is enhanced through reflecting themselves in the personalities of their mentees.

The feeling of usefulness that comes from providing knowledge and experiences to the mentees (Hansman, 2002; Kennett & Lomas, 2015) as well as the enhancement of the mentor's self-confidence (Louca & Petsiou, 2016) are mentioned in the literature as important benefits for mentors.

Simpson et al. (2007), on the other hand, point out that mentors, through the process of "self-reflection," learn themselves through the objects of input and discussion with their mentees, which helps not only to identify their strengths and weaknesses but also to improve their teaching behavior (Hobson et al., 2009).

### 2.3 Benefits of mentoring for the educational organization

According to the literature review, participation in mentoring processes is associated with multiple benefits for all parties involved, mentor, mentee, mentor and educational organization (Lavin Colky & Young, 2006). The benefits gained by the educational organization from mentoring positively correlate the benefits of the mentored and at the same time are linked to the concept of the learning organization (Koutsoukos, 2021). A learning organization is considered an organization that through a learning process, at the individual and collective level (Retna & TeeNg, 2016), is constantly driven to change (Watkins & Marsick, 1996). According to Schechter (2008), the adoption of innovative processes that promote teachers' professional development is another element of the learning organization concept. Through this perspective, mentoring as an innovative process of knowledge provision contributes to the transformation of the educational organization into a learning organization (Koutsoukos & Sipitanou, 2020).

The benefits that the organization gains by utilizing mentoring practices are the following: Cultivating a learning culture and developing lifelong learning. The educational organization that participates in mentoring processes leverages learning by engaging the entire educational community as through the formation of a reflective culture, it strengthens the spirit of lifelong learning and contributes to the promotion of innovative actions (Kozelková, 2024; Koutsoukos & Sipitanou, 2020; Cosner & Jones, 2016; OECD, 2016; Orland-Barak, 2005; Hargreaves & Fullan, 2000).

As collaborative relationships develop and the members involved gain feelings of satisfaction, conditions for higher quality social contact between the network of the educational community are fostered. At the same time, a willingness to seek help on issues related to their personal and professional development is diffused to other educational organization members (Phillips & Fragoulis, 2010; Moor et al., 2005).

Collaborative culture, as another benefit for the educational organization, is built through the application of techniques such as mentor support, learning networks, and discussion circles (Koutsoukos, 2021; Koutsoukos & Sipitanou, 2020; Cosner & Jones, 2016; OECD, 2016; Anastasiou, Valkanos, Fragoulis & Androutsou, 2015).

The literature, as an additional benefit that the educational organization gains from the participation of its members in mentoring processes, recognizes the retention of teachers in the educational organization and the reduction of new teacher departures (Schwan, Wold, Moon, Neville, & Outka, 2020; Banks, Conway, Darmody, Leavy, Smyth & Watson, 2015; Bowman, 2014). However, the use of mentoring also contributes to the achievement of the organization's goals and thus increases its effectiveness (Koutsoukos et al., 2021; Frangoulis & Valkanos, 2011; Roberts, 2000). At the same time, findings from the research of Koutsoukos & Sipitanou (2020) also speak of an increase in employee productivity.

Table 1: Mentoring: indicative benefits for all parties involved

s	Benefits for mentors	Benefits for the educational organization
Smooth adaptation and integration into the educational organisation	Improving communication skills	Cultivating a learning culture and developing lifelong learning
Managing professional difficulties	Development of cooperation networks	Creating a collaborative culture
Improving teaching practices	Personal and professional development	Promotion of innovative actions
Wear prevention	Development of new optics	Reduction of resignations
Conservation in the educational area	Enhancing feelings of satisfaction	Achieving goals
Job satisfaction	Self confidence	Increasing productivity
Improved communication skills/ Self-confidence		

### 3. Research design

This was an empirical study that investigate the perceptions of kindergarten principals in the regional unit of Thessaloniki regarding the expected benefits for newly appointed teachers, mentors, and educational organizations. By conducting qualitative research, the perceptions of 15 kindergarten principals were explored using the research tool of semi-structured interviews.

### 4. Research questions

The research questions to which the research sought answers are the following:

1. What are the views of kindergarten principals on the benefits of newly appointed teachers?
2. What are the views of kindergarten principals on the benefits they derive as mentors from the mentoring relationship?
3. What are the views of kindergarten principals on the benefits that the educational organization derives from the mentoring process as themselves?

### 5. Research Methodology

#### 5.1 Sample and Participants

For the research needs, a sample of 15 heads of kindergartens in the regional unit of Thessaloniki was selected. The sampling, for reasons that serve the research process practically, was done without probability because the participants in the survey meet the required characteristics. Still, their selection was done for easy access and willingness of these kindergarten principals to participate in the survey. Consequently, the survey sample is a convenience sample (Creswell, 2011). Specifically, the snowball technique was followed as the sample was formed through the process of accumulation (Isari & Pourkos, 2015).

The participants were all women. As shown in Table 2 regarding the age distribution of the participants during the survey period, the average age of the participants was 51.2 years. Regarding the educational level of the participants, out of the total of 15 kindergarten heads, 9 (60%) held a postgraduate degree and 6 (40%) held an HEI degree. In terms of years of teaching experience, the average is 23.5 years of teaching experience. Regarding the participants' administrative experience, the average number of years of administrative experience is 12.1 years.

Table 2: Profile of interview participants

	Age	Level of studies	Teaching experience (years)	Administrative experience (years)
S1	56	University degree	25	15
S2	57	University degree	29	15
S3	40	Postgraduate degree	15	4
S4	55	University degree	31	29
S5	38	Postgraduate degree	12	3
S6	56	Postgraduate degree	26	18
S7	45	Postgraduate degree	21	4
S8	39	Postgraduate degree	10	4
S9	60	University degree	37	20
S10	56	University degree	23	17
S11	50	Postgraduate degree	18	14
S12	55	Postgraduate degree	28	12
S13	50	Postgraduate degree	25	9
S14	59	University degree	25	2

S15	52	Postgraduate degree	28	16
Average (years)	51.2	6 University Degree 9 Postgraduate Degree	23.5	12.1

### 5.2 Data collection - Research instrument

For the data collection, the qualitative research method was chosen as it was considered more suitable since it allowed capturing the views in a free context, while at the same time it provided the opportunity to interpret and deepen the perceptions of the participants (Tsiolis, 2014). The semi-structured interview was chosen as a research tool due to its flexible nature and the possibility of deepening the issues under investigation (Isari & Pourkos, 2015). To create the interview guide, questions were formulated based on previous, related research. In total, 15 semi-structured interviews were conducted remotely using the Google Meet platform, each lasting approximately 20-30 minutes. The interviews were conducted between November and December 2023.

### 5.3 Data procedure

The qualitative content analysis method was used to process the data, specifically thematic analysis. The interview questions were sorted based on the research questions. The extraction of the themes that emerged during the transcription of the interviews answered the research questions, and a pilot interview was conducted to carry out the final interview design.

## 6. Results

Regarding the first research question on the benefits that newly appointed teachers gain from the use of mentoring (Table 3), the answers of the head teachers of kindergartens were dominated by the improvement of the methods and teaching practices of the newly appointed teachers, the expansion of the circle of social contacts as well as the development of the communication skills of the newly appointed teachers. Several respondents reflect in their answers benefits in terms of understanding the formal and informal parts of the culture of the educational organization.

Table 3: Key benefits of mentoring for newly appointed teachers

Benefits for newly appointed teachers	Number of answers	Percentage
Improving teaching methods and practices	14/15	93.3%
Broadening the circle of social contacts and developing communication skills	14/15	93,3%
Understanding the formal and informal part of the culture of the educational organization	12/15	80%

Regarding the second research question related to the benefits that kindergarten supervisors themselves gain as mentors, (Table 4) the enrichment of knowledge and renewal of mentors concerning teaching through interaction with the mentored dominated the respondents' answers. Many responses also focus on the benefit gained by mentors in terms of improving their communication skills and expanding their network of social contacts. Of particular interest are also the responses related to the personal satisfaction that mentors derive from the feeling of giving back concerning the development process of their mentees. Again, several responses advocate benefits related to the mentor's professional and personal development.

Table 4: Key benefits of mentoring for mentors

Benefits for mentors	Number of answers	Percentage
Enriching the knowledge and renewal of mentors concerning teaching through interaction with mentors	15/15	100%
Improving communication skills and widening social contacts	15/15	100%
Personal satisfaction	12/15	80%
Professional and personal development	11/15	73.3%

Regarding the benefits gained by the educational organization by utilizing mentoring practices (Table 5), the majority of the participants preferred in their responses the positive association of mentoring with the learning organization, while at the same time, they linked the benefits of mentoring for the educational organization with the benefits of mentoring for the mentored.

Increasing the efficiency of the organisation as well as improving the quality of the work produced dominate as benefits for the learning organisation, while a large proportion of respondents focus in their answers on improving communication and working relationships. These benefits (increasing the effectiveness of the organisation/improving the quality of the work produced/improving communication and working relations) are according to the participants' answers and the related benefits, guided and educational organization.

Table 5: Key benefits of mentoring for the educational organization

Benefits for the educational organization	Number of answers	Percentage
Operation of the organization as a learning community	15/15	100%
Positive correlation between the benefits of mentoring for the educational organization and the benefits of mentoring for the mentored	15/15	100%
Increasing efficiency	15/15	100%
Improving the quality of the work produced	15/15	100%
Improving communication and working relations	13/15	86.6%

## 7. Discussion

From the results regarding the first research question, it appeared that one of the main benefits for the newly appointed teachers, according to the kindergarten heads, is the improvement of teaching methods and practices. This finding is confirmed by findings of other studies by Amram & Davidovitch (2024), Trika & Kasimatis (2020), Alambi & Alayande (2017), Ingersoll & Strong (2011) and Certo, (2005) who found that engaging newly qualified teachers in effective mentoring processes is an important tool for improving their teaching practices.

An equally significant proportion of kindergarten heads mention the benefits of newly appointed teachers in terms of expanding their network of social contacts and cultivating their communication skills. These findings are confirmed by research results from Karampassi & Papanis (2019), Huffman (2017), Banks et al. (2015), Phillips & Fragoulis (2010), Ehrich et al. (2004) and Sinclair (2003). Of particular interest is the research finding regarding the understanding of the culture of the educational organization concerning its formal and informal functioning. This finding converges with the findings of Huffman's (2017) qualitative research in the U.S. and findings of Achinstein & Athanases (2005). These findings may be justified since according to research by Kutsyuruba et al. (2019), Alabi et al. (2017), and Hobson, & Malderez (2013) a wide range of newly appointed teachers' needs focus on issues such as classroom management, familiarization with school facilities and equipment, relationship building, student assessment, and teaching effectiveness.

In the findings of the research, with regard to the second research question, benefits are found regarding the enrichment of mentors' knowledge and their didactic renewal through interaction with the mentored (Koutsoukos,

2021; Petrovska et al., 2018; Philips & Fragoulis, 2010; Ehrich et al., 2004; Hargreaves & Fullan, 2000) confirming the constructivist model of mentoring (Hargreaves & Fullan, 2000). The views of the research participants can be interpreted if we consider that the role of the mentor is linked to the teachers' own teaching (Koutsoukos, 2021). Another interpretation of these views can possibly be the fact that the mentor through the interaction with the mentee reshapes his/her methods and teaching behavior (Philips & Fragoulis, 2010). Besides, according to Jacobi (1991), the benefits of mentoring concern both the mentor and the mentee since it is an interactional relationship. An interesting finding is the improvement of the mentor's communication skills through the use of mentoring techniques (Hobson et al., 2020; Philips & Fragoulis, 2010) and the gaining of a sense of personal satisfaction from his/her contribution to the mentor's development (Amram & Davidovitch, 2024; Papadimitriou, 2023; Shapira-Lishchinsky, 2012; Ehrich et al., 2004; Allen & Eby, 2003). The views of kindergarten supervisors are interpreted if we consider that mentors improve their skills, develop their sense of self-esteem, and increase their levels of personal development through the support they provide to their mentors (Michiotis et al., 2006). The cultivation of communication skills, on the other hand, is considered an essential characteristic of the mentor (Koutsoukos, 2021; Mee-Lee & Bush, 2003; Good, Halpin & Halpin, 2000), as the ability to express oneself clearly and understandably is considered necessary (Ehrich et al., 2004), while communication skills are considered necessary for the psychological support of the mentored (Kapachtsi, 2020).

The ongoing personal and professional development of the mentor (Papadimitriou, 2023; Ponte & Twomey, 2014; Lopez-Real & Kwan, 2005; Ehrich et al., 2004; Allen & Eby, 2003) is mentioned as another benefit of the mentoring process. The views expressed by the participants are interpreted if we consider that within the mentoring process, professional growth and development of the mentored is achieved as the mentor according to Clutterbuck (2005) manages the relationship, encourages, feeds safely and consistently, teaches and responds to the needs of the mentored.

Regarding the third research question, the research findings indicate that the benefits that the educational organization derives from mentoring are related to the benefits that the mentored individuals derive (Koutsoukos & Sipitanou, 2020; Dimos and Papagiyanopoulou, 2017) as well as the concept of a learning organization (Hobson et al, 2020 · Cosner & Jones, 2016; OECD, 2016; Orland-Barak, 2005 · Hargreaves & Fullan, 2000). The link between the benefits of mentoring and the benefits of the learning organization is interpreted when considering the association of mentoring with the diffusion of a collaborative culture and seeking help from other members of the organization (Phillips & Fragoulis, 2010; Moor et al., 2005). In this light, mentoring also contributes to the transformation of the organization into a learning organization, since it acts as a knowledge provider to its members (Koutsoukos & Sipitanou, 2020).

The findings of the present research indicate benefits for the educational organization in terms of improving its efficiency levels (Koutsoukos et al., 2021; Koutsoukos & Sipitanou, 2020; Fragoulis & Valkanos, 2011; Michiotis et al., 2006; Roberts, 2000) and improving the quality of the work produced. This finding converges with similar research findings of Koutsoukos & Sipitanou (2020) and Colky & Young (2007). These findings can be interpreted if one considers that the cultivation of knowledge and skills works for the benefit of the organization and increases its effectiveness levels through the achievement of its goals (Fragoulis & Valkanos, 2011; Roberts, 2000).

The finding regarding the improvement of communication levels between members of the educational organization and the improvement of working relationships converges with the findings of the research of Koutsoukos & Sipitanou, (2020) and can be interpreted if one considers that mentoring promotes the collaborative culture of the members of the educational organization (Fragoulis & Valkanos, 2011) and strengthens the relationships between them (Moor et al., 2005).

## **8. Conclusion**

In conclusion, based on the results of the survey, it seems that kindergarten principals in the regional unit of Thessaloniki, report benefits for all parties involved, new teacher, mentor and educational organization. For the newly appointed teachers the benefits are related to the improvement of teaching methods, the cultivation of communication skills and the understanding of the formal and informal culture of the educational organization.



The benefits of mentors coincide with the benefits of mentored teachers and focus on improving teaching methodology techniques and developing communication skills through an interactional relationship. For the training organization the benefits coincide with the benefits of the mentors as the mentoring process is positively related to the concept of the mentoring organization and focus on improving the effectiveness of the organization, the quality of the work produced, and the development of working relationships.

The findings of this research can be complemented by future research attempts that will include quantitative and qualitative measurements of kindergarten principals to make the sample more representative in terms of range and geographical area (national scale). Conducting a mixed survey of both head teachers of kindergartens and newly appointed teachers. Carrying out a field survey using the observation method with preschool heads. Repeating a qualitative survey only among heads of private kindergartens.

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# 21<sup>st</sup> Century School Management Skills from Crisis Management by Private School Administrators under the Nonthaburi Provincial Education Office

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## Abstract

This research aimed to study the level of crisis management skills, 21st-century management skills of private school administrators, and how crisis management skills impact the management skills of private school administrators under the jurisdiction of the Nonthaburi Provincial Education Office. The research sample consisted of 274 administrators, including directors, deputy directors, and heads of subject groups. The research tool used was a questionnaire, and statistical analysis included mean, standard deviation, t-tests, and multiple regression analysis. The findings revealed that: 1) The crisis management skills of private school administrators were at a high level overall, with the highest to lowest averages being problem assessment, plan modernization, planning team establishment, contingency plan testing, and contingency plan creation. 2) The 21st-century management skills of private school administrators were also at a high level overall, with averages ranked as follows: vision, communication, ethics, human relations, technical, and creativity skills. 3) Crisis management skills that significantly influenced the 21st-century management skills of private school administrators under the Nonthaburi Provincial Education Office included plan modernization, problem assessment, and planning team establishment, with statistical significance at the .05 level, collectively predicting 61.10% of the administrators' management skills for the 21st century.

**Keywords:** School Management, Crisis Management, 21<sup>st</sup> Century School Management

## 1. Introduction

Education is a key factor in improving population quality, serving as the foundation for a country's advancement in economic, social, and political areas. In Thailand, educational management is entrusted to institutions closely connected to the public, making it essential for educational development to align with sustainable national development plans and global changes (Ministry of Education, 2022). Environmental changes, such as disease outbreaks, storms, and floods, impact school operations, necessitating that administrators modernize management strategies and leverage technology to address these issues (Rangsan, 2016). This adaptation was evident during the COVID-19 crisis, which required a shift to online learning and strict preventative measures (Office of the Private Education Promotion Commission, 2021). The 21<sup>st</sup> century presents unique challenges compared to the

20<sup>th</sup> and 19<sup>th</sup> centuries, marked by rapid technological progress and global conflicts, demanding an updated educational system to prepare for swift changes (Sakol, 2016). Therefore, contemporary education must adopt new learning models to keep pace with these shifts (Vicharn, 2012). Crisis management involves handling sudden and confusing situations, where administrators need crucial skills, including technical, interpersonal, and conceptual skills (Katz, 1955), which are essential for effectively managing emerging issues. The Nonthaburi Provincial Education Office oversees 89 schools under the Office of the Private Education Promotion Commission, where educational management in the modern era has not sufficiently responded to ongoing changes.

Given these challenges, the researcher is interested in studying 21<sup>st</sup> century school management skills in crisis situations among private school administrators under the Nonthaburi Provincial Education Office. The study aims to provide a framework for effective school management aligned with institutional goals and to enhance management skills suited to the current environment, including adapting teaching methods to meet 21<sup>st</sup> century challenges.

## **2. Research Objectives**

- 1) To study the level of crisis management skills of private school administrators under the Nonthaburi Provincial Education Office.
- 2) To examine the level of 21<sup>st</sup> century school management skills of private school administrators under the Nonthaburi Provincial Education Office.
- 3) To investigate how crisis management skills influence the school management skills of private school administrators under the Nonthaburi Provincial Education Office.

## **3. Research Methodology**

This research aims to study the 21<sup>st</sup> century school management skills of private school administrators under crisis situations in Nonthaburi, Thailand. The study uses a survey research approach, collecting data through questionnaires.

### *3.1 The scope of population*

- 1) The population in this study consists of school administrators, including directors, deputy directors, and heads of subject areas, from 89 schools under the Nonthaburi Provincial Education Office for the academic year 2023, totaling 916 individuals.
- 2) The sample group for this study was determined using the sample size formula based on Krejcie and Morgan's table (Pisanu Fongsri, 2011), resulting in a sample size of 274 out of 916 individuals. The sampling method used was stratified random sampling, ensuring proportionate representation across different school sizes and within each district in Nonthaburi Province. Following this, simple random sampling was applied by drawing lots, with school names from each size category written down and selected to match the defined proportion.

### *3.2. The scope of content*

The researcher aims to study the crisis management skills of private school administrators under the Nonthaburi Provincial Education Office, focusing on five key areas based on the framework by Phratchaya Krapran (2008): 1) establishing a planning team, 2) assessing the scope of issues, 3) developing contingency plans, 4) testing contingency plans, and 5) updating plans as necessary. Additionally, the study examines six essential 21<sup>st</sup> century school administration skills among private school administrators: 1) communication skills, 2) creative thinking skills, 3) visionary skills, 4) technical skills, 5) interpersonal skills, and 6) ethical and moral skills.

### 3.3 Instruments in the study

This questionnaire focuses on 21<sup>st</sup> century school administration skills in crisis management among private school administrators under the Nonthaburi Provincial Education Office. It was developed by the researcher in line with the study objectives to gather various data points and is divided into four parts:

**Part 1:** Respondent Information — This section contains five open-ended questions to gather background information on the respondents, including gender, educational background, work experience, position, and school size.

**Part 2:** Crisis Management in School Administration — This section comprises 25 items across five areas and uses a rating scale format.

**Part 3:** 21<sup>st</sup> Century School Administration Skills — This section consists of 48 items across six areas: 1) communication skills, 2) creative thinking skills, 3) visionary skills, 4) technical skills, 5) interpersonal skills, and 6) ethical and moral skills. It also uses a rating scale format.

**Part 4:** Additional Comments and Suggestions

### 3.4 Making and testing research instruments

- 1) Review theories, concepts, and related research on 21<sup>st</sup> century school administration skills under crisis management for private school administrators. This review provided the theoretical framework and relevant research for understanding school administration skills in the context of 21<sup>st</sup> century learning.
- 2) Study the questionnaire construction methods based on the guidelines described by Pisanu Fongsri (2011), which served as a basis for developing the questionnaire.
- 3) Define the scope of questions using the study variables, create the research framework, and construct the instrument accordingly. The questionnaire was aligned with synthesized information from documents, literature, theories, and related research on the 21<sup>st</sup> century school administration skills under crisis management for private school administrators under the Nonthaburi Provincial Education Office. Initial feedback was sought from the academic advisor.
- 4) Present the draft questionnaire to the academic advisor for feedback and make necessary corrections to ensure accuracy and appropriateness.
- 5) Present the finalized questionnaire to five experts in educational administration to test content validity. The Index of Item-Objective Congruence (IOC) was set at 0.50 or higher, with all items achieving an IOC of 1.00.
- 6) Test the reliability of the finalized questionnaire. The researcher conducted a try-out with 30 participants not included in the sample group. The data from the try-out were used to calculate the reliability using Cronbach's alpha coefficient, resulting in an overall reliability score of 0.98.

### 3.5 Data Analysis

- 1) Analyze data from the questionnaire using frequency and percentage.
- 2) For Part 1 of the questionnaire, which covers general information about respondents with fill-in responses, data will be tabulated by frequency and analyzed to calculate percentages and mean values. Results will be presented in tables along with descriptive commentary.
- 3) For Parts 2 and 3, which cover crisis management in school administration and 21<sup>st</sup> century school administration skills of private school administrators under the Nonthaburi Provincial Education Office, scores will be calculated based on a 5 point weighted scale. The data will then be recorded, and mean scores and standard deviations will be calculated. Results will be interpreted item-by-item, by skill area, and overall, following Best's interpretative criteria (Best, 1981: 195).
- 4) Analyze the school administration skills under crisis management of private school administrators under the Nonthaburi Provincial Education Office using stepwise multiple regression analysis.
- 5) Present the data in tables accompanied by narrative explanations.

### 3.6. Statistical Analysis

The statistics used for data processing and analysis include:

- 1) Basic Statistics: Percentage, mean, and standard deviation.
- 2) Statistics for Instrument Quality Assessment: Content validity calculated by the Index of Item-Objective Congruence (IOC) and reliability of the entire questionnaire assessed by the Alpha Coefficient, as per Cronbach's method.
- 3) Statistics for Hypothesis Testing: Stepwise multiple regression analysis.

## 4. Research results

The results of the analysis of crisis management skills among private school administrators under the jurisdiction of the Nonthaburi Provincial Education Office are detailed in Table 1.

Table 1: Mean, Standard Deviation, and Crisis Management Skills of Private School Administrators under the Nonthaburi Provincial Education Office, Overall and by Aspect.

n = 274

Aspect	Crisis Management Skills of Private School Administrators under The Nonthaburi Provincial Education Office	Crisis Management Skills in Educational Administration			
		$\bar{X}$	S.D.	Interpret	Rank
1.	Establish a planning team	3.66	.47	High	3
2.	Evaluating the scope of the issue	3.78	.42	High	1
3.	Develop contingency plans	3.61	.53	High	5
4.	Test contingency plans	3.64	.66	High	4
5.	Modernize the plans	3.74	.42	High	2
<b>Total</b>		<b>3.69</b>	<b>.41</b>	<b>High</b>	

From Table 1, it is found that the skills in managing educational institutions during crises of private school administrators under the Nonthaburi Provincial Education Office are generally at a high level ( $M = 3.69$ ,  $S.D. = .41$ ). When considering each specific area, it is found that all areas are at a high level, arranged from the highest to the lowest mean scores as follows: evaluating the scope of the issue ( $M = 3.78$ ,  $S.D. = .42$ ), modernizing the plans ( $M = 3.74$ ,  $S.D. = .42$ ), establish a planning team ( $M = 3.66$ ,  $S.D. = .47$ ), test the contingency plans ( $M = 3.64$ ,  $S.D. = .66$ ), and developing contingency plans ( $M = 3.61$ ,  $S.D. = .53$ ).

The results of the analysis of management skills of private school administrators in the 21st century under the Nonthaburi Provincial Education Office are shown in Table 2.

Table 2: presents the means, standard deviations, and management skills of private school administrators in the 21<sup>st</sup> century under the Nonthaburi Provincial Education Office, both overall and by specific area.

n = 274

No.	Skills of Educational Administrators in the 21 <sup>st</sup> Century	Level of Skills in the 21 <sup>st</sup> Century			
		$\bar{X}$	S.D.	Interpret	Rank
1.	Communication Skills	3.71	.60	High	2
2.	Creative Thinking Skills	3.58	.58	High	6
3.	Visionary Skills	3.83	.45	High	1
4.	Technical Skills	3.63	.51	High	5
5.	Interpersonal Skills	3.68	.43	High	4
6.	Ethical and Moral Skills	3.69	.46	High	3
<b>Total</b>		<b>3.69</b>	<b>.39</b>	<b>High</b>	

From Table 2, it was found that the management skills of private school administrators under the Nonthaburi Provincial Education Office in the 21st century were overall at a high level ( $M = 3.69$ ,  $S.D. = .39$ ). When considering each aspect, it was found that all areas were at a high level, ranked from highest to lowest average as follows: visionary skills ( $M = 3.83$ ,  $S.D. = .45$ ), communication skills ( $M = 3.71$ ,  $S.D. = .60$ ), ethical and moral



skills (M = 3.69, S.D. = .46), interpersonal skills (M = 3.68, S.D. = .43), technical skills (M = 3.63, S.D. = .51), and creative thinking skills (M = 3.58, S.D. = .58).

Table 3: Variables of management skills in crisis situations that affect the management skills of private school administrators in the 21<sup>st</sup> century under the Nonthaburi Provincial Education Office overall.

Predictor variables according to the sequence of the equation	Unstandardized Coefficients		standardized Coefficients	t	Sig
	$\hat{\beta}$	Std. Error	Beta		
Constant value	1.396	.116		12.044	.000
Modernize the plans (X <sub>5</sub> )	.046	.056	.639	8.179	.000
Evaluate the scope of the issue (X <sub>2</sub> )	.275	.049	.356	5.644	.000
Establish a planning team (X <sub>1</sub> )	.129	.032	.243	4.069	.041

\*Statistical significance level of .05.

From Table 3, it can be seen that the skills in managing educational institutions during crises that affect the management skills of private school administrators in the 21<sup>st</sup> century, under the Office of the Education District of Nonthaburi, are analyzed across five areas. It was found that crisis management skills can statistically predict the management skills of private school administrators in the 21<sup>st</sup> century in three significant areas at the .05 level: modernize the plans (X<sub>5</sub>), evaluate the scope of the issue (X<sub>2</sub>), and establish planning team (X<sub>1</sub>).

These 3 variables together can predict 61.10% of the management skills of school administrators in the 21<sup>st</sup> century.

The equation of multiple regression analysis can be written in the form of raw score as follows:

$$\hat{Y}_{\text{tot}} = 1.396 + 0.046 (X_5) + 0.275 (X_2) + 0.129 (X_1)$$

The predictor equation can be written in the form of standard score as follows:

$$\hat{z}_{Y_{\text{tot}}} = 0.639 (X_5) + 0.356 (X_2) + 0.243 (X_1)$$

## 5. Discussion

1. The level of management skills in educational institutions during a crisis among private school administrators under the Nonthaburi Provincial Education Office is overall at a high level. This may be due to the severe communicable disease crisis that has occurred over the past three years. Schools have held meetings with the community and parents to manage operations during the crisis by establishing task forces and spokespersons as central coordinators between schools and the community. They have set goals and objectives, planned communication with stakeholders, and selected strategies to respond to the crisis to minimize damage, rather than allowing the situation to escalate without knowing how to cope or learning how to bring the organization back to normal as soon as possible. This aligns with the concept explained by Smith Boonchutima (2017), who described crisis communication management as requiring organizations to define clear and appropriate goals and objectives for communication in the event of a crisis. This is essential for guiding actions and measuring the success of communication. Establishing task forces and appointing spokespersons is critical for issuing announcements to present information, clarify details about the crisis, and manage the situation in the short term, along with long-term management plans. Regular announcements must be made to the public through media channels or the organization's own media, with a designated spokesperson prepared to provide information during planned events. This includes preparing Holding Statements to be sent to the media or drafting letters with announcements for the organization's media. Furthermore, it aligns with the research of George Spais & Pallab Paul (2021), who studied crisis management models for marketing education: reflecting the changes in the marketing education system in light of the COVID-19 crisis. The primary objective of their research was to apply crisis management models to marketing education that has faced challenges due to the COVID-19 pandemic. They employed strategic crisis management methods, initially introduced by Burnett, to develop a framework for managing turmoil in teaching and success during this pandemic. They conducted an in-depth discussion of the literature, employing a critical realist perspective, and presented current examples of best practices in universities and decisions for each of the three stages of crisis management (selecting strategies for crisis response, planning communication with

stakeholders, and defining goals and objectives) to achieve successful recovery during these times. There is a consistent effort to address the significant concern among scholars regarding the gap between theory and practice. They hope that their article and proposed framework will provide a special opportunity to explore and study how unexpected changes occur in higher education and how remedies are applied. In reflecting the nature of current marketing education through crisis management, they identify the implications of their framework and offer valuable recommendations for future research.

2. The level of management skills in 21<sup>st</sup> century educational institutions among private school administrators under the Nonthaburi Provincial Education Office is overall at a high level. This may be because school administrators must prioritize the development of professional quality, which enables educational institutions to achieve success in all areas. Such success relies on knowledge, ability, and an understanding of management principles, or management skills, as well as planning skills. This aligns with Jitjarun Songwitya (2019), who stated that the skills of educational administrators are crucial for managing educational institutions, ensuring that all operations within the school align with the educational goals or the objectives of the curriculum. Pimolpan Petsombat (2017) noted that the skills of educational administrators refer to the knowledge and abilities in management demonstrated through five key skills: Systemic Thinking The ability to understand the structural system of people, the organizational structure of positions, educational management policies, and administrative systems to effectively achieve educational objectives. Human Relations The knowledge and ability to achieve results through group processes, fostering cooperation among individuals within the institution, coordinating efforts, and providing guidance to colleagues.

3. The management of educational institutions during a crisis has a significant impact on the management skills of private school administrators under the Nonthaburi Provincial Education Office. This is because the school administrators in this area possess the knowledge and skills necessary to effectively drive their institutions toward achieving their goals. Paradhi Ananawiw (2010) stated that the administration by educational leaders is a key factor in implementing policies and setting the direction for operations to achieve the ultimate goals. This requires a systematic approach to defining procedures and methods, managing human resources and other resources for maximum benefit, and evaluating outcomes for adjustments that suit the situation. Jantharane Sanguanne (2010) mentioned that the skills of educational administrators involve both science and art, requiring knowledge, skills, and experience, as well as the ability to communicate and demonstrate leadership to ensure effective management toward achieving objectives. Research by Janpen Thanarak (2012) found that the skills of professional educational administrators, as perceived by teachers in secondary schools in Kanchanaburi Province, are at a high level. The skills are ranked in order as follows: systemic thinking skills, human relations skills, and technical skills. Moreover, the results of the comparison of skills among administrators, based on the opinions of teachers in secondary schools in Kanchanaburi Province, showed no significant statistical differences when classified by gender. However, when classified by work experience, significant differences were found, particularly in the area of systemic thinking skills, highlighting the importance of experience in developing the skills of educational administrators in an ever-changing environment.

## 6. Suggestions

### 6.1 *Suggestions from the Research Findings*

From the study on the management skills of private school administrators in crisis situations under the Nonthaburi Provincial Education Office, it was found that the approaches to developing crisis management skills can be applied to improve the efficiency of school administration. The researcher therefore proposes the following suggestions:

1. **Communication Skills:** The lowest average score indicated that administrators have a poor ability to use information technology for communication with parents, the community, and external organizations. Therefore, administrators should develop their communication skills to ensure that the team has a mutual understanding of common goals. Effective communication should involve systematic thinking, using various communication formats according to the situation, actively listening, asking open-ended questions, being empathetic, and keeping promises.

2. **Creative Thinking Skills:** The lowest average score shows that administrators need to study and acquire new knowledge, be ready to face challenges, and be willing to make decisions. Therefore, administrators should be open to listening to feedback from their teams, focusing on collaborative decision-making to ensure everyone is involved in the work by setting common goals and providing appropriate guidance.
3. **Visionary Skills:** The lowest average score indicates that administrators should elevate the subconscious and moral standards of their team. Quality leadership requires creating motivation for staff to be satisfied with their work, which leads to effective organizational management.
4. **Technical Skills:** The lowest average score in financial capability shows that administrators should be honest in their operations, even if it may not please everyone. Integrity is a fundamental principle that builds trust. If administrators lack honesty, they will not be able to achieve success and acceptance within the organization. Developing these skills will enable school administrators to manage effectively during crises and lead the organization to future success.
5. **Interpersonal Skills:** The lowest average score indicates that school administrators need to employ various methods to motivate staff to work to their fullest potential and to understand human nature and behavior. Therefore, administrators should possess leadership qualities, knowledge, decision-making skills, intelligence, and adaptability to effectively and efficiently manage their tasks.
6. **Ethical Skills:** The lowest average score indicates that school administrators should apply principles of good governance in their management and provide opportunities for teachers and the community to participate in school administration. Thus, administrators need to make decisions, set goals, and establish various methods for teachers while closely supervising their work, providing guidance, encouragement, and morale-boosting when performance meets goals, as well as fostering a friendly relationship with teachers while maintaining authority.

## 6.2 Suggestions for Future Research

1. **Leadership Development in Crisis Situations:** Future studies should explore appropriate leadership development strategies for crisis situations in private schools under the Nonthaburi Provincial Education Office. This research can prepare administrators to handle potential future crises effectively.
2. **Factors Influencing the Effectiveness of Media and Technology in Education:** Research should investigate the factors that affect the efficiency of media and technology use in small schools under the Nonthaburi Provincial Education Office. The findings can be utilized to develop effective media and technology integration in small educational institutions.
3. **Teacher Learning Process Development:** Future studies should examine the development models for the learning processes of teachers in private schools under the Nonthaburi Provincial Education Office. The data obtained can serve as a guideline for enhancing teachers' learning processes.

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# Self-Regulated Learning, Satisfaction, and Educational Performance: A Study of Undergraduate Accounting Students

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## Abstract

This research aims to prove two associations. The first is between self-regulated learning (SLR) and student satisfaction. The second is between SLR and educational performance. Indeed, undergraduate accounting students are utilized as a population, and samples are determined using snowball sampling. Furthermore, this research utilizes the covariance-based structural equation model designed for examining hypotheses; therefore, it needs at least 200 students. Then, this research can collect 212 students from numerous higher education institutions in Indonesia as samples. After examining the data, this research demonstrates a positive influence of SLR on student satisfaction and educational performance. At the end of this paper, the practical and academic suggestions exist.

**Keywords:** Educational Performance, Satisfaction, Self-Regulated Learning, Undergraduate Accounting Students

## 1. Introduction

The COVID-19 pandemic has become a substantial challenge for the global higher education community, forcing them to pivot to online teaching and learning. As a result, the related institutions try to achieve this virtual learning excellently (Kim & Kim, 2021). Compared with onsite learning, online education is effective, especially in time and place (Waschull, 2001). In Indonesia, these activities are carried out through Zoom meetings, Google Classroom, Edmodo, and Microsoft Teams (Nuriansyah, 2020), supported by a learning management system (Wulandari et al., 2023).

Students are customers for higher education (Calma & Dickson-Deane, 2020). Therefore, the campus must satisfy or delight them with its learning experience (Shahsavari & Sudzina, 2017). This circumstance will happen if it can perform at least similar to or more substantial than the student's expectations, respectively (Kotler & Armstrong, 2021). Furthermore, to attain this ideal situation, the campus should apply self-regulated learning (Lysitsa & Mavroeidis, 2024; Yoo & Jung, 2022).

The students must have excellent educational attainment, reflected by a grade point average. This point average describes the assessment of the lecturer after the students take courses during their study (Kumar et al., 2021), reflecting their expertise level in academic work (Fariza et al., 2020). Also, it is essential for students seeking jobs

because the company consistently sets the standard for accepting applicants (Hendikawati, 2011). Furthermore, several researchers suggest that the campus employs self-regulated learning to create a trustworthy educational performance (Barnard et al., 2008; Madihie & Mos, 2018; Nadhif & Rohmatika, 2020; Sutarni et al., 2021).

Based on two circumstances, this research intends to prove the influence of self-regulated learning on student satisfaction and educational performance. Methodologically, this research uses the structural equation model (SEM) based on covariance as Barnard et al. (2008) and Sutarni et al. (2021) perform, differing from Madihie and Mos (2018) employing correlation analysis, Dinh and Phuong (2024) utilizing variance-based SEM as well as Nadhif and Rohmatika (2020) and Yoo and Jung (2022) using multiple regression, and Lysitsa and Mavroeidis (2024) applying logistic regression.

## 2. Literature Review and Hypothesis Development

### 2.1. Self-regulated learning and student satisfaction

Students with respectable self-regulated learning can freely manage themselves to learn and arrange how to attain their learning goals by organizing their time (Fauziyah et al., 2024). As confirmed by Yoo and Jung (2022) and Lysitsa and Mavroeidis (2024), this situation will motivate them to be satisfied with learning. After splitting self-regulated learning (SLR) into its four dimensions, Dinh and Puong (2024) found a non-ideal relationship with a negative impact of environmental structuring (ES) on student satisfaction. Ideally, the positive effect of help-seeking (HS), strategic planning (SP), and time management (TM) on this satisfaction occurs. By mentioning these elucidations, hypothesis one is shaped like this.

H<sub>1</sub>: The association between self-regulated learning and student satisfaction is positive.

### 2.2. Self-regulated learning and educational performance

In the online system, self-regulated learning (SLR) is the essential skill that enables students to adjust their behavior to achieve better academic results (Lim et al., 2020), reinforced by persistence, focus, discipline, and responsibility (Oyelere et al., 2021). After splitting SLR into its four dimensions, Dinh and Puong (2024) find a non-ideal relationship with a negative sign between educational performance and environmental structuring (ES) and strategic planning (SP). Preferably, help-seeking (HS) and time management (TM) influence this performance positively. Furthermore, Barnard et al. (2008), Madihie and Mos (2018), Nadhif and Rohmatika (2020), and Sutarni et al. (2021) prove a positive relationship between SLR and academic attainments without splitting the dimensions. By mentioning these elucidations, hypothesis two is shaped like this.

H<sub>2</sub>: The association between self-regulated learning and educational performance is positive.

### 2.3. Research model

Following Barnard et al. (2008), this research model is based on the covariance-based structural equation. Therefore, the oval and rectangle demonstrate latent and manifest variables, respectively, as Ghozali (2017) informs. In this study context, the model is in Figure 1.

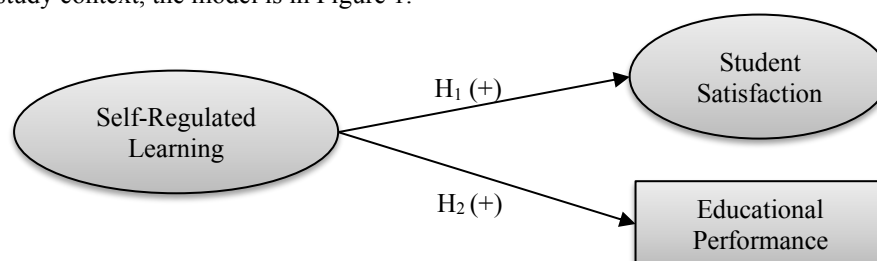


Figure 1. The research model

Sources: Literature Review in Sections 2.1 and 2.2

### 3. Research Methods

#### 3.1. Research Variables

This study uses student satisfaction (SAT) as the first endogenous determinant, based on six items of Gray and DiLoreto (2016): I had a good experience when taking this course (SAT1), learning through the provided platform (SAT2), studying the course contents (SAT3), interacting with online classmates (SAT4) and my instructors (SAT5), and I recommend this online course to other students (SAT6). Besides, the grade point average (GPA) quantifies educational achievement by referring to Barnard et al. (2008) and Madihie and Mos (2018), where this achievement becomes the second endogenous determinant. As the exogenous variable, this study uses self-regulated learning (SRL) by adopting its dimensions and their items from Barnard et al. (2008), followed by Martinez-Lopez et al. (2017). Moreover, the dimensions intended are goal setting (GS), environmental structure (ES), task strategies (TS), time management (TM), help-seeking (HS), and self-evaluation (SE) (see Table 1).

Table 1: The dimensions of self-regulated learning and their items

Dimension	Items
Goal setting (GS)	I establish a standard for attaining my online assignment courses (GS1).
	I establish short-term goals (day-by-day and every week) and long-term goals (every month and bi-annually) (GS2).
	I have a high standard to be achieved for my online courses (GS3).
	I have a standard to manage learning time (GS4).
	I never compromise for not achieving the best online course results (GS5).
Environment structuring (ES)	I choose the distraction-free place to study (ES1).
	I find a relaxing place to study (ES2)
	I can find the place to learn efficiently (ES3)
	I can select time without disturbance to study online (ES4).
Task strategies (TS)	I attempt to make notes during online learning (TS1).
	I read learning substances vociferously to overcome distraction (TS2).
	Before joining the meeting device, I prepare my questions (TS3).
	I do the additional cases to master substances (TS4).
Time management (TM)	I allocate the additional time to study (TM1).
	I schedule the same time every day or every week to study for my online courses (TM2).
	Despite not attending class daily, I still try to allocate my study time (TM3).
Help-seeking (HS)	I can obtain my knowledgeable classmates to discuss the learning substances (HS1).
	I can share material-contend problems with my classmates to solve them (HS2).
	If required, I can meet my classmates onsite (HS03)
	My instructors always assist me through e-mail (HS04)
Self-evaluation (SEV)	I can recapitulate online materials to check my comprehension (SE1)
	I can ask myself my numerous critical questions (SE2)
	Communicating with my classmates lets me know my class performance (SE3).
	Communicating with my classmates lets me know how different I deeply understand substance from them (SE4).

Source: Barnard et al. (2008) and Martinez-Lopez et al. (2017)

This sample comprises undergraduate accounting students in Indonesia, and the snowball sampling technique takes them. According to Augustine and Kristaung (2019), this technique involves multiple effects from the first contacted person to the second person, and this process stops until the required number of samples is obtainable. Because of checking the theory using a covariance-based structural equation model (CBSEM), the samples must be at least 200 respondents, as recommended by Ghozali (2021b), and the model is in equations one and two:

$$\text{SAT} = \beta_1 \text{SLR} + \xi_1 \text{ (Equation 1)}$$

$$\text{EP} = \beta_2 \text{SLR} + \varepsilon_1 \text{ (Equation 2)}$$

Notes: SAT = student satisfaction, EP = educational performance. SLR = self-regulated learning, and  $\xi_1$  and  $\varepsilon_1$  as the errors from SAT and EP as the latent and manifest variables, respectively.

Furthermore, this study utilizes the six-point Likert scale to measure the indicators of SLR and SAT. According to Nemoto and Belgar (2014), the six points aim to prevent the respondents from choosing the neutral option, i.e., three, when the five points are utilized. By removing this option, they tend to select the positive or negative responses; therefore, their responses are more informative to be analyzed.

The CBSEM needs some requirements. The first is validity testing by contrasting the loading factor and average variance extracted (AVE) with 0.5. The validity is attainable if these values exceed 0.5 (Ghozali, 2017). The second is reliability testing, which compares composite reliability (CR) and Cronbach Alpha with 0.7. reliability testing is attainable if CR exceeds 0.7 (Ghozali, 2017) and CA is higher than 0.7 (Ghozali, 2021a). The third is the goodness of fitness recognition based on CMIN/DF (chi-square divided by degree of freedom), root mean square error approximation (RMSEA), PGFI, PNFI, and PCFI (parsimonious goodness of fit index, norm fit index, comparative fit index) with the guidance in Table 2.

Table 2: Guidance values for goodness of fit quantification

Quantification	Guidance value	Source
CMIN/DF	Fit if it is from 2 to 5.	Ghozali (2017)
RMSEA	Fit if it is between 0.05 and 0.08.	Ghozali (2017)
PGFI	Fit if it is above 0.5	Dash and Paul (2021)
PNFI	Fit if it is above 0.5	
PCFI	Fit if it is above 0.5	

Finally, the hypothesis is tested by contrasting the one-tailed probability of the coefficient with a 5% significance level. The hypothesis is tolerable if this value is under this level (Hadianto et al., 2023).

#### 4. Results

The survey associated with this research occurred in May 2023 and collected 212 undergraduate accounting students from various higher educational institutions (HEI) in Indonesia. Furthermore, these students are grouped based on gender, age, grade point average, and the origin of the HEI, as Table 3 demonstrates. Most students participating in this survey are female (77.51%) and between 20 and 23 years old (60.85%). Importantly, they have a grade point average between 3 and 4 (93.40%) and are from Maranatha Christian University (53.50%).

Table 3: Undergraduate Student Feature

Feature	Depiction	Total	Portion
Gender	Man	71	33.49%
	Woman	141	66.51%
Age	Between 20 and 23	19	60.85%
	Below 20	70	33.02%
	Above 23	13	6.13%
Grade point average	Below 2	1	0.47%
	Between 2 and 2.99	13	6.13%
	Between 3 and 4.00	198	93.40%
The name of a higher educational institution	BINUS University	2	0.94%
	Kalimantan Technological Institute	1	0.47%
	Pelita Indonesia	1	0.47%
	Singapore Institute of Management	1	0.47%
	STMIK LIKMI	3	1.42%
	Salatiga State Islamic University	2	0.94%
	Airlangga University	1	0.47%
	Atma Jaya University, Yogyakarta	1	0.47%
	Bhayangkara University	7	3.30%
	Brawijaya University	3	1.42%



Table 3: Undergraduate Student Feature

Feature	Depiction	Total	Portion
	Diponegoro University	5	2.36%
	The University of Indonesian Informatics and Business	28	13.21%
	Bekasi Islamic University 45	1	0.47%
	State Islamic University of Sunan Ampel Surabaya	1	0.47%
	Parahyangan Catholic University	8	3.77%
	Duta Wacana Christian University	1	0.47%
	Krida Wacana Christian University	4	1.89%
	Maranatha Christian University	113	53.30%
	Langlangbuana University	2	0.94%
	The University of Mathla'ul Anwar Banten	4	1.89%
	The University of Muhammadiyah Surakarta	3	1.42%
	Pelita Harapan University	1	0.47%
	Pembangunan Jaya University	3	1.41%
	Indonesian Educational University	2	0.94%
	Prof. Dr. Moestopo University (Religion)	2	0.94%
	Sangga Buana University	4	1.89%
	The North Sumatera University	2	0.94%
	Tarumanagara University	1	0.47%
	Indonesian Open University	2	0.94%
	Widyatama University	1	0.47%
	Wiraraja University of Madura	1	0.47%
	The National Development University of Veteran Yogyakarta	1	0.47%

Table 4 presents the validity testing result of self-regulated learning measurement shown by the loading factors after the invalid item of SEV4 with a loading factor of 0.443 is no longer employed. The loading factor of GS1, GS2, GS3, GS4, GGS5, ES1, ES2, ES3, ES4, TS1, TS2, TS3, TS4, TM1, TM2, TM3, HS1, HS2, HS3, SEV1, SEV2, SEV3, and SEV4 is upper than 0.5: 0.669, 0.669, 0.838, 0.738, 0.700, 0.650, 0.751, 0.811, 0.683, 0.631, 0.650, 0.793, 0.806, 0.680, 0.765, 0.692, 0.793, 0.771, 0.693, 0.738, 0.714, 0.684, and 0.747. Hence, the accurate responses exist, affirmed by AVE for GS, ES, TS, TM, HS, and SEV exceeding 0.5: 0.526, 0.528, 0.525, 0.509, 0.562, and 0.520. Besides, these accurate responses are reliable because the composite reliability is more significant than 0.7 for GS, ES, TS, TM, HS, and SEV: 0.847, 0.816, 0.814, 0.756, 0.797, and 0.812, and Cronbach Alpha with similar condition: 0.842, 0.814, 0.758, 0.754, 0.758, and 0.766. Additionally, each valid dimension of self-regulated learning exists, as demonstrated by the loading factor of GS, ES, TS, TM, HS, and SEV higher than 0.5: 0.811, 0.624, 0.837, 0.946, 0.670, and 0.929, verified by AVE upper than 0.5: 0.659. Additionally, all dimensions are reliable, mirrored by composite reliability and Cronbach Alpha above 0.7: 0.919 and 0.960, respectively.

Table 4: Loading factor, AVE, composite reliability, and Cronbach Alpha related to self-regulated learning measurement

Note	The relationship	Loading factor	AVE	Composite Reliability	Cronbach Alpha
Dimension → Indicator	GS → GS1	0.669	0.526	0.847	0.842
	GS → GS2	0.669			
	GS → GS3	0.838			
	GS → GS4	0.738			
	GS → GS5	0.700			
Dimension --> Indicator	ES → ES1	0.650	0.528	0.816	0.814
	ES → ES2	0.751			
	ES → ES3	0.811			
	ES → ES4	0.683			
Dimension --> Indicator	TS → TS1	0.631	0.525	0.814	0.758
	TS → TS2	0.650			
	TS → TS3	0.793			
	TS → TS4	0.806			
Dimension --> Indicator	TM → TM1	0.680	0.509	0.756	0.754

Table 4: Loading factor, AVE, composite reliability, and Cronbach Alpha related to self-regulated learning measurement

Note	The relationship	Loading factor	AVE	Composite Reliability	Cronbach Alpha
Dimension --> Indicator	TM → TM2	0.765	0.562	0.797	0.758
	TM → TM3	0.692			
	HS → HS1	0.793			
	HS → HS2	0.771			
Dimension --> Indicator	HS → HS3	0.693	0.520	0.812	0.766
	SEV → SEV1	0.738			
	SEV → SEV2	0.714			
	SEV → SEV3	0.684			
Construct --> Dimension	SEV → SEV4	0.747	0.659	0.919	0.960
	SLR → GS	0.811			
	SLR → ES	0.624			
	SLR → TS	0.837			
	SLR → TM	0.946			
	SLR → HS	0.670			
	SLR → SEV	0.929			

Table 5 depicts the validity testing result of student satisfaction (SAT), exhibited by the loading factor of SAT1, SAT2, SAT3, SAT4, SAT5, and SAT6, more substantial than 0.5: 0.888, 0.912, 0.922, 0.828, 0.831, and 0.835, confirmed by AVE above 0.5: 0.757. Based on this evidence, precise responses occur. These reliable responses also happen since composite reliability and Cronbach Alpha are more substantial than 0.7: 0.949.

Table 5: Loading factor, AVE, composite reliability, and Cronbach Alpha related to student satisfaction measurement

Indicator	Loading factor	AVE	Composite Reliability	Cronbach Alpha
SAT1	0.888	0.757	0.949	0.949
SAT2	0.912			
SAT3	0.922			
SAT4	0.828			
SAT5	0.831			
SAT6	0.835			

Table 6 exhibits the goodness-of-fit model quantification results. For CMIN/DF and RMSEA, they are 2.247 and 0.077, still in the required range from two to five and from 0.05 to .080, respectively. Thus, the model fits the data, as confirmed by PGFI, PNFI, and PCFI, more substantial than 0.50: 0.669, 0.725, and 0.797.

Table 6: The result of the goodness of fit quantification

Quantification	Value	Guidance value	Meaning
CMIN/DF	2.247	Fit if it is from 2 to 5 (Ghozali, 2017).	The model fits the data because the related quantifications are acceptable.
RMSEA	0.077	Fit if it is between 0.05 and 0.08 (Ghozali, 2017).	
PGFI	0.669	Fit if it is above 0.5 (Dash & Paul, 2021).	
PNFI	0.725		
PCFI	0.797		

Table 7 demonstrates the estimation result of CBSEM, covering the one-tailed probability of critical ratio for the positive coefficient of SRL → SAT and SLR → EP of 0.000 and 0.000, one-to-one. The first and second hypotheses are satisfactory because these values are underneath a 5% significance level.

Table 7: The estimated result of CBSEM

Hypothesis	Relationship	Coefficient	Standard Error	Critical Ratio	Probability (1-tailed)
One	SLR → SAT	1.014	0.137	7.405	0.000
Two	SLR → EP	0.482	0.054	9.002	0.000

#### 4. Discussion

This research accepts the first hypothesis, stating the positive relationship between self-regulated learning (SLR) and student satisfaction. This tendency happens because the students can set the goal, strategy, and learning time based on their needs. Also, they can develop metacognitive skills to arrange and evaluate themselves to grow the confidence to face obstacles. These situations will exist if the higher education institution is equipped with technology and access to information. With this positive propensity, this study confirms Yoo and Jung (2022) after investigating 94 students taking nursing education programs in Seoul and Gyeonggi (South Korea) and Lysitsa and Mavroeidis (2024) after studying 122 graduate students attending three different distance learning in Hellenic Open University (Greece).

This research recognizes the second hypothesis, which declares the positive association between self-regulated learning and student satisfaction. Students with high perceived autonomy support are likely to engage more in online and virtual classroom activities, experience autonomous types of motivation, have better control over learning, and improve their academic performance. Therefore, this positive tendency aligns with Barnard et al. (2008) after investigating 204 students enrolled in 24 academic degree programs in the United States and Madihie and Mos (2018) once inspecting 80 students in the Faculty of Cognitive Science and Human Development in Malaysia. Finally, this positive fact confirms that Nadhif and Rohmatika (2020) and Sutarni et al. (2021) from Indonesia, after studying 22 first-grade students at Madrasah Aliyah Al-Islam in Ponorogo learning about English subject and 137 public higher education students in Bandung when taking a course of Introduction to Management, separately.

#### 5. Conclusion

Time higher education students deserve virtuous service for learning services from the campus. One of them is self-regulated learning (SRL). Therefore, this study, conducted with 212 undergraduate accounting students, appears to verify its relationship with satisfaction and academic performance. After processing their response statistically, this study finds that SRL effectively increases satisfaction and academic performance if managed better to serve students. Regarding satisfaction, the accounting department should regularly conduct a learning survey of students to detect their level by applying closed-question items and recognizing their learning expectations through open questions. Concerning self-regulated learning, the accounting department should arrange the curriculum to stimulate this learning by allowing students to explore the substance of courses, solve cases, and finish independent projects on time based on their creativity. Furthermore, the accounting department must conduct academic counseling and hold workshops on time management and effective learning strategies through its lecturers and the invited competent speakers to support it.

Despite numerous responses and two meaningful relationships, this study still has restrictions. Firstly, only one determinant of student satisfaction and educational performance is used, i.e., self-regulated learning. Secondly, the simple model is applicable. Therefore, the succeeding scholars may utilize other determinants of student satisfaction and educational performance, such as internet self-efficacy, student-tutor interaction, and digital learning environment, to handle the first restriction. They should also apply student satisfaction to mediate the influence of self-regulated learning, internet self-efficacy, student-tutor interaction, and digital learning environment on educational performance to overcome the second restriction.

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# How Transformational Leadership Enhancing School's Performance: A Systematic Literature Review

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## Abstract

This study aims to systematically review the literature on how transformational leadership can improve school performance, as well as identify the factors that play a role in the effectiveness of such leadership in the educational environment. Using a systematic literature review (SLR) of empirical articles from leading journals in the past five years, the study filtered and encoded key findings to understand the influence of transformational leadership. The findings show that transformational leadership significantly impacts improving school performance through teacher motivation, collaborative culture development, and increased staff commitment. Trust, collegial support, and the school climate often mediate these effects. The main limitation of this study is that the scope of the data is limited by periods and geographical regions, which may affect the generalization of the findings. Further research is recommended to explore the long-term impact and integrate cross-cultural perspectives. These results guide school leaders and policymakers for effective leadership strategies to improve performance.

**Keywords:** Transformation Leadership, Enhancing Performance, School's Performance

## 1. Introduction

### *1.1 Background and significances*

Transformational leadership (TL) has emerged as a prominent focus in educational research, with scholars exploring its potential to impact school performance and student outcomes positively (Leithwood & Jantzi, 2005). This systematic literature review aims to synthesize the existing empirical evidence on the relationship between TL in schools and their overall performance. In the context of Education, TL is characterized by leaders who can inspire and motivate their teams, encouraging them to strive for higher levels of achievement and driving innovation in delivering educational services (Armiyanti et al., 2023). A literature review suggests that TL in schools can significantly, primarily indirectly, affect student achievement and engagement (Leithwood & Jantzi, 2005). These effects are often mediated by factors such as school culture, teacher commitment, job satisfaction, and other variables. (Leithwood & Jantzi, 2005) Transformational leadership has been shown to contribute to developing organizational capacity and commitment among education professionals. (Leithwood & Jantzi, 1999).

For instance, a study (Leithwood & Jantzi, 2005) found that transformational leadership in schools is associated with higher levels of teacher commitment and job satisfaction, leading to improved student outcomes. Supporting this, another study (Leithwood & Jantzi, 1999) examined the effects of TL on select organizational conditions, such as school culture, and found that these leadership practices had a moderate but significant total impact on student engagement. These studies' findings underscore TL's importance in enhancing overall school performance. However, the research also suggests that the relationship between TL and school performance is complex and influenced by various factors. For example, a study (Meng, 2022) highlighted the importance of contextual factors, such as the specific academic environment, in determining the effectiveness of TL practices. While the existing literature has provided valuable insights into the positive impacts of TL on school performance, the mechanisms underlying these relationships are not yet fully understood. Research in Indonesia on TL in the context of educational services found that transformational leadership played a crucial role in improving the overall performance of academic institutions (Oktafia et al., 2021). Another researcher said that TL can improve education services, but more research is needed to clarify the specific pathways through which this occurs (Armiyanti et al., 2023).

To this end, a growing body of research has delved deeper into the antecedents and moderators that shape the efficacy of transformational school leadership (Leithwood & Jantzi, 2005) (Ronksley-Pavia & Neumann, 2022). A literature review indicates that TL is related to three sets of antecedents: the leader's personal qualities, organizational features, and the characteristics of the leader's colleagues (Sun et al., 2017). For instance, a leader's emotional intelligence, self-awareness, and ability to inspire and motivate others are essential personal qualities that foster TL. (Ross & Gray, 2006) Moreover, organizational factors such as a supportive and collaborative school culture and the commitment and trust of a leader's peers have also been found to contribute to the emergence of TL in educational settings. (Sun et al., 2017). Transformational leaders can foster a sense of collective purpose and commitment among their staff by cultivating a shared vision, empowering teachers, and encouraging innovation; this, in turn, has been shown to lead to improved teaching practices, higher levels of teacher job satisfaction and retention, and ultimately, enhanced student learning outcomes. (Ronksley-Pavia & Neumann, 2022). For example, a study found that TL in schools was associated with increased teacher trust in the principal, which mediated the relationship between leadership and teacher commitment to school goals. Another study replicated these findings, demonstrating that TL practices contributed to favorable organizational conditions, such as a positive school climate, resulting in greater student engagement. (Leithwood & Jantzi, 1999).

Despite the growing evidence on the benefits of TL in schools, the research also suggests that its impacts on school performance are not always direct. Transformational leadership may exert its influence through more complex, indirect pathways, with school culture, teacher commitment, and other mediating factors playing a crucial role. For instance, a study found that the effects of TL on student achievement were primarily mediated by teachers' instructional practices and collective efficacy (Leithwood & Jantzi, 2006). Similarly, another study revealed that teachers' job satisfaction and organizational commitment partially mediated the relationship between TL and student engagement. (Leithwood & Jantzi, 1999).

This research aims to build on the existing knowledge base by further investigating the specific mechanisms and contingency factors that shape the effectiveness of TL in enhancing school performance and providing insights that can inform educational policy and practice.

### *1.2 Influence of Transformational Leadership*

While the literature generally supports the positive influence of TL on school performance, it is essential to note that certain contextual factors may constrain the effectiveness of this approach. For example, a study found that the benefits of TL were more pronounced in schools with more excellent organizational stability and resources, suggesting that this leadership style may be less effective in resource-constrained or turbulent environments (Leithwood & Jantzi, 2005). Additionally, some research has cautioned that an overemphasis on TL could lead to burnout among teachers, as the demands of this approach may be emotionally taxing (Leithwood et al., 1996). In this light, the research indicates that the efficacy of TL in enhancing school performance is not absolute but contingent on a complex interplay of contextual, organizational, and individual factors. While TL can be a

powerful tool for driving school improvement, it may need to be strategically combined with other leadership approaches that address a given school context's specific needs and challenges (Leithwood & Jantzi, 2005). The existing body of research on TL in educational settings provides a nuanced understanding of the potential benefits and limitations of this approach for enhancing overall school performance. (Sun & Leithwood, 2012).

Additionally, some scholars have raised concerns about the potential pitfalls of TL in schools. For example, a study by (Leithwood & Jantzi, 2005) cautioned that an overemphasis on TL could lead to burnout among teachers, as the emotional demands of this approach may be taxing. Moreover, there are questions about the sustainability of TL's effects, as the departure of a transformational leader could potentially disrupt the hard-won gains in school performance (Barnett et al., 2001). Further, TL has been criticized for its potential to concentrate power in the hands of the leader, which could undermine the participatory and distributed nature of effective school leadership (Leadership for Student Learning, n.d). These criticisms underscore the need for a balanced approach to leadership in educational settings, one that harnesses the strengths of TL while mitigating its potential drawbacks.

In conclusion, the existing research on TL in schools suggests that this approach can be a powerful lever for enhancing school performance. Still, its effectiveness is contingent on various contextual, organizational, and individual factors. While TL has been shown to foster positive outcomes such as improved teacher commitment, job satisfaction, and student learning, the research also cautions about potential limitations, including the risk of teacher burnout and the need for a more balanced, distributed model of school leadership. As such, the systematic review of the literature presented in this paper highlights the nuanced and complex relationship between TL and school performance, underscoring the importance of carefully considering each educational context's specific needs and constraints when implementing this leadership approach.

### *1.3 Enhancing Performance through Transformational Leadership*

As a theoretical framework, transformational leadership has been widely recognized as a powerful approach to driving organizational change and improving performance in various contexts, including the field of Education. At its core, TL is characterized by a leader's ability to inspire and motivate followers to transcend their self-interest for the organization's greater good (Muijs et al., 2006). Transformational leadership involves four key dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Yusuf & Kurniady, 2020). Idealized influence refers to the leader's ability to serve as a role model, embodying the values and vision of the organization (Buenvinida & Ramos, 2019). Inspirational motivation involves the leader's capacity to articulate a compelling vision and inspire followers to work towards a shared goal (Bass, 1999). Intellectual stimulation encourages followers to challenge the status quo and creatively problem-solve. At the same time, individualized consideration focuses on the leader's attentiveness to each follower's unique needs and developmental goals (Leithwood & Jantzi, 2005). By fostering these TL behaviors, school leaders can potentially enhance various aspects of school performance, such as teacher job satisfaction, organizational commitment, and student learning outcomes (Ronksley-Pavia & Neumann, 2022) (Sun & Leithwood, 2012) (Leithwood & Jantzi, 2005) (Barnett et al., 2001). By promoting a shared vision, intellectual stimulation, and individualized support, transformational leaders can cultivate a positive school culture that empowers teachers, enhances their efficacy and engagement, and ultimately leads to improved student achievement.

Furthermore, TL theory is grounded in the notion that leaders can create meaningful change by tapping into the intrinsic motivations of their followers (Rao, 2014). By appealing to teachers' higher-order needs and values, transformational school leaders, according to (Muijs et al., 2006), can inspire them to go beyond their self-interests and work towards the collective goals of the school community; this is the process of "transforming" followers' beliefs, attitudes, and behaviors results in increased organizational commitment, innovative thinking, and a sense of ownership over the school's improvement efforts.

Transformational leadership also aligns with Maslow's hierarchy of needs, focusing on addressing the higher-level needs of self-esteem and self-actualization among followers. By providing individualized support, intellectual stimulation, and a compelling vision, transformational leaders can foster an environment that enables teachers to fulfill their need for growth, development, and meaningful contribution to the organization (Leithwood & Jantzi,



2000). In the context of schools, TL theory suggests that when principals adopt this approach, they can create a culture of trust, collaboration, and shared responsibility for student learning (Ash & Persall, 2000). Through cultivating a shared sense of purpose and the empowerment of teachers, transformational leaders can potentially catalyze improvements in school performance, as measured by student outcomes, teacher job satisfaction, and organizational effectiveness.

#### *1.4 Transformational Leadership, Enhancing Performance School's Performance*

The theoretical foundation of TL's potential to enhance school performance is further bolstered by its alignment with other influential educational leadership theories and models (Benwari & Dambo, 2014). For instance, TL shares common elements with instructional leadership, a framework that emphasizes the principal's role in directly shaping teaching and learning practices within the school (Leithwood & Sun, 2012). Both approaches underscore the importance of leaders as change agents who can inspire and motivate their followers to achieve ambitious goals.

Moreover, TL can be seen as a complementary approach to distributed leadership, emphasizing the importance of shared decision-making and the empowerment of multiple stakeholders within the school community. By cultivating a shared vision and intellectual stimulation, transformational leaders can create the conditions for broader participation and leveraging diverse expertise across the organization (Lange, 1993). Additionally, TL theory builds upon the concept of servant leadership, which prioritizes the leader's role in serving the needs of followers and the larger community (Smith et al., 2004). By placing the well-being and growth of teachers at the forefront, transformational school leaders can foster a sense of trust, loyalty, and commitment that ultimately benefits student learning and school improvement.

## **2. Method**

This study utilizes the systematic literature review (SLR) technique to a selection of empirical studies conducted over five years, from 2019 to 2024, to ascertain the impact that TL plays in enhancing the performance of educational institutions. We restricted the search to these years to get more current and pertinent findings that could better explain the dynamics and function of TL and the difficulties that schools are currently facing. This study falls under a scoping review SLR, which seeks to gather as much pertinent data as possible to provide a thorough scope on a subject (Xiao & Watson, 2019). Additionally, this study adheres to the guidelines established by Guo et al. (2024), and Parveen et al. (2024) provide additional examples of SLR. The following are the steps:

- Create research questions,
- establish inclusion and exclusion standards,
- carefully catalog relevant studies,
- assessing the quality of the selected studies and
- integrating prominent findings.

### *2.1 Research Question*

In this research, the following research questions will be addressed using the SLR technique, as explained in the introduction and literature review above:

RQ1. What are the key factors for success in transformational leadership?

RQ2. The extent to which transformational leadership practices affect teachers in improving school performance and teacher retention/loyalty in schools?

RQ3. What is the impact of transformational leadership on educational performance? .

### *2.2 Inclusion/exclusion criteria*

Investigations were performed utilizing Dimensions AI ([www.dimensions.ai](http://www.dimensions.ai)), an online scientific research instrument associated with many databases, including Emerald Publishing, Scopus, ScienceDirect, and Taylor &

Francis (Toprak et al., 2023). Inclusion and exclusion criteria were employed to guarantee that only pertinent publications and associated studies were incorporated into the analysis. This research used multiple criteria to identify papers relevant to transformational leadership, performance enhancement, and school performance (refer to Table 1).

Table 1: Inclusion/Exclusion Criteria

Inclusion	Exclusion
Focus on the journal of transformational leadership	Report, dissertation, theses, books
Listed in Dimension AI	Not listed in Dimension AI
Publications of the last 5 years	Publications over 5 years
Written in English	Not written in English
Peer-reviewed article	Not peer-reviewed article
Empirical research	Not empirical research

Source: Prepared by the authors based on (Xiao & Watson, 2019).

### 2.3 Systematic Search Protocol

Through discussion and preliminary search, the search term is adjusted to the research topic as follows:

The first time the search terms were entered into the Dimensions AI search box, 672 articles were found after limiting the search to 2019–2024. Following discussion, Dimensions AI's nineteen source names or journal picks were employed in the search procedure, producing 237 articles. Next, we limited the source titles to journals that were relevant to the subject. Examples include journals like the European Journal of Education Research, Journal of Educational and Social Research, Journal of Higher Education Theory and Practice, Journal of Governance and Regulation, Journal of Education Administration, Journal of Infrastructure, Policy and Development, Frontiers in Education, Edelweiss Applied Science and Technology, International Journal of Education Management, International Journal of Education for Business, International Journal of Education Development, International Journal of Education in Business, Journal of Management Development, International Journal of Education Research, International Journal of Education Management, and International Journal of Education for Business. Scimagojr.com showed that these nine journals were highly ranked. Then, 115 articles were submitted for screening and eligibility due to this restriction. The end process produced 13 papers that were judged appropriate for the subject. Figure 1 shows the workflow of the Preferred Reporting Items Systematic Review and Meta-Analysis (PRISMA) from the systematic search carried out on October 28, 2024.

I am conducting a quality analysis. A scoping review seeks to gather pertinent information from the existing literature, which includes methodologies, findings, variables, and additional aspects. The review presents a comprehensive overview of the field and a detailed examination of existing work (Xiao & Watson, 2019). A scoping analysis serves to delineate the conceptual boundaries of a field, assess the size of the research pool, evaluate the type of evidence available, and pinpoint gaps in existing research.

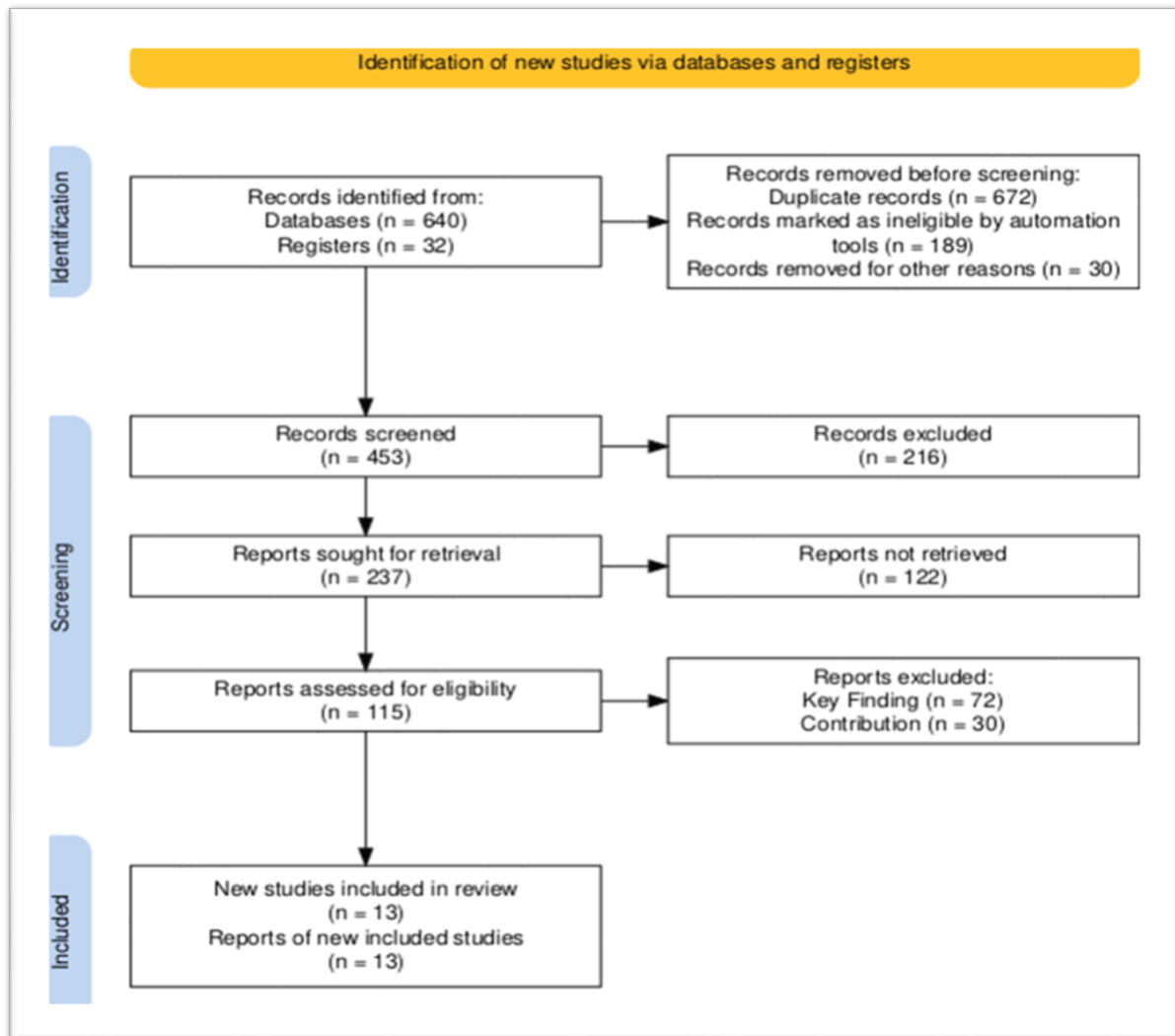
This review utilized empirical articles from reputable journals using Dimensions AI through a systematic search methodology. These articles were selected through a comprehensive assessment of the content, which led to the identification of 13 articles. The quality of each article was confirmed through a thorough evaluation process

### 2.4 Extraction of findings

The first step was to enter the selected articles into Microsoft Excel using the template provided for metadata extraction. Next, irrelevant data had to be removed and replaced with essential research elements, such as year of publication, author, title, abstract, publication title, research context, research theme, author's discipline, author's leadership position, theoretical anchor, research questions or assumptions, research approach, methodology, findings, and views on transformational or innovative leadership in the context of educational institutions, as well as recommendations for future research. The research aspects were obtained by carefully analyzing the articles

and then coded according to each element. Findings are derived from the coded data and will be presented in the next section.

Figure 1: Publication Title



Source: Prepared by the authors based on (Xiao & Watson, 2019)

### 3. Results

The analysis and results are discussed in this section. First, a table presents the eligible articles collected from the search by year of publication, author, title, critical finding, contribution, and research question (see Table 2). Then, general aspects, including the publication title, the author's discipline, leadership position, theoretical anchors, research approaches, methodologies, findings, suggestions for future research, and views on TL, were explored afterward.

#### 3.1 Publication titles

The articles were published in 13 publication or journal titles, namely, Sage Open Journal (Q2) (1 article; see Chen, Yuan, 2021), Computational Intelligence and Neuroscience (Q1) (1 article; see Meng.,2022), European Journal and Education Research (Q3) (1 article; see Muhimmah, at.al, 2022), Journal of Educational and Social Research (Q4) (1 article; see Liswati, et.al, 2023), Journal of Higher Education Theory and Practice (Q4) (1 article; see Hambali., at.al, 2023), Journal of Governance and Regulation (Q4) (1 article; see Subaidi, et.al, 2023), Journal of Education Administration (Q1) (1 article; see Sliwka., at.al, 2023), Journal of Infrastructure, Policy and Development (Q2) (1 article; see Buhari., et.al, 2024), Frontiers in Education (Q2) (1 article; see Alzoraiki., at.al,

2024), Edelweiss Applied Science and Technology (Q4) (1 article; see Mulyadi, Sobri, 2024), International Journal of Learning (Q3) (1 article; see Kou., et.al, 2024), Journal of Sustainability (Q1) (1 article; see Habeeb, Eyupoglu, 2024), Humanities and Social Science (Q2) (1 article; see Şahin, Bilir, 2024). The journals and articles are all related to their respective scopes and objectives.

Each of these journals is closely aligned with the scope of the research, emphasizing empirical research and advanced analytical approaches relevant to transformation leadership and inspiration leadership. Most of the journals in this selection are well-known for publishing high-impact research in business management and technology. Notably, 9 out of 13 journals are attributed to Elsevier, while Hindawi published one and one by Emerald (see Sliwka et al., 2023). This affiliation with a reputable publisher further validates the reliability and academic contributions of the sources used in this study. This section presents the findings from a systematic literature review, focusing on TL to improve the school's performance. The study included in this review highlights various aspects of the impact of TL on decision-making practices in schools and all-stakeholder engagement strategies. The table below summarizes the primary empirical studies published from 2019 to 2024, including their contributions and critical findings.

Studies on TL's role in improving educational institutions' performance were conducted in various global regions, with representatives from Europe, Southeast Asia, East Asia, and Southwest Asia—studies conducted in Southeast Asia (7 articles. See (Mulyadi & Sobri, 2024); (Muhimmah et al., 2022); (Liswati et al., 2023); (Hambali et al., 2023); (Subaidi et al., 2023); (Bohari et al., 2024); (Kou et al., 2024) mainly focus on the role of transformational leadership in carrying out vision, competitiveness and morality in the educational environment, while research in Southwest Asia (1 article. See (Alzoraiki et al., 2024); and in East Asia (2 articles see (Chen & Yuan, 2021); (Meng, 2022), emphasizing leadership innovation in Education—meanwhile, European Studies (3 articles. See (Habeeb & Eyupoglu, 2024) (Şahin & Bilir, 2024) (Sliwka et al., 2024) highlight the role of leadership in shaping perceptions and implementing learning in schools.

### 3.2 Research Themes

The research themes in this review evolved from the role of TL to more targeted studies that addressed the impact of specific transformations and innovations; for the first analysis, studies centered on how TL can improve overall school performance, such as the fulfillment of teacher training, school facilities, learning environments, and predictive analytics. Over time, the theme narrowed, focusing on the role of transformation and innovation leadership in driving teacher satisfaction, increasing loyalty to the school, and developing other strategies.

### 3.3 Author disciplines

Most of the 51 authors are from educational administration (23), followed by management (6), Education (5), business science (5), computer science (6) and cultural dal others (6). This finding is expected given the nature of the subject, which is educational leadership and performance in general. Unexpectedly, there were several authors from different disciplines, namely computer science and culture. However, this unexpected finding cannot justify the multidisciplinary nature of the research object, as it does not provide sufficient evidence.

Table 2: Summary of Empirical Studies on the Integration of Big Data in CRM (2019-2024)

Author	Year	Title	Key Finding	Contribution	Research Question
Chen,, Yuan	2021	“The Study of the Relationships of Teacher’s Creative Teaching, Imagination, and Principal’s Visionary Leadership”	This study found that teachers' imagination affects teaching creativity, but principals' visionary leadership is insignificant.	This paper discusses the relationship between principals' visionary leadership and teachers' teaching creativity.	How does the principal's visionary leadership influence teachers' teaching creativity?
Muhimmah et al.	2022	Inspirational Leadership in	Inspirational leadership, which has proactivity, vision, and humanism	This journal discusses inspirational	Why is inclusive higher Education still not widely

		Inclusive Higher Education	values, is essential in inclusive higher Education.	leadership at UNESA to support students with special needs.	implemented in Indonesia?
Liswati et al.	2023	“Implementation of Principal's Visionary Leadership in Learning Innovation”	The study concluded that principals have implemented visions and strategies to anticipate changes in learning innovations.	This research highlights the role of principals' visionary leadership in improving teachers' skills and learning innovation.	How does the principal translate the school vision and anticipate changes in learning innovations?
Hambali., et. al	2023	“The Effect of Visionary Leadership and Job Rewards on Teacher Professional Commitment”	Visionary leadership affects teachers' professional commitment by 46.6%, while job appreciation affects it by 58.9%.	This journal explores the influence of visionary leadership and rewards on teacher commitment.	How do visionary leadership and job appreciation influence teachers' commitment?
Subaidi et al.	2023	“Visionary Leadership to Improve the Quality and Competitiveness of Private Islamic Schools”	The study concluded that visionary leadership and school quality improve school competitiveness.	This study proves the influence of visionary leadership and school quality on the competitiveness of Islamic schools.	To what extent do visionary leadership and school quality influence competitiveness while upholding morality?
Meng.	2022	“Relationship analysis of transformational leadership and deep learning-based education management”	Meng's study found transformational leadership has a positive effect on teacher-teaching innovation.	This article explores the role of transformational leadership in educational management in Chinese universities.	How does transformational leadership influence educational management innovation?
Sliwka., at. al	2023	“Transformational leadership for deeper learning: shaping innovative school practices for enhanced learning.”	Principals play an important role in shaping the perception and implementation of deep learning through stakeholder engagement.	This study provides an analytical understanding of strategies to support school transformation toward deep learning.	What is the role of the principal in shaping the perception and implementation of deep learning in schools?
Buhari., et.al	2024	“Transformational leadership's role in shaping Education 4.0 within higher education”	Transformational leadership is essential to drive innovation, technology integration, and improvement in higher Education.	The study emphasized the importance of transformational leadership for universities' relevance in the digital age.	How does transformational leadership influence the adoption of innovative practices in education 4.0?
Alzoraiki., at.al	2024	“The role of transformational leadership in enhancing school culture and teaching performance in Yemeni public schools”	Transformational leadership influences school culture, which improves teaching performance in Yemeni schools.	This journal discusses the role of transformational leadership in improving school culture and teaching performance in Yemen.	What is the role of transformational leadership in improving school culture and teaching performance?

Mulyadi, Sobri	2024	“A study on the transformational leadership of madrasah principals from the perspective of educators and educational staff”	The transformational leadership of Madrasah heads in Bengkulu is positively assessed, but inclusiveness needs improvement.	This study explored teachers' and staff's perceptions of the transformational leadership of the head of a Bengkulu Madrasah.	What are the perceptions of teachers and staff about the transformational leadership style of the Madrasah head?
Kou., et.al	2024	“The influence of transformational leadership on teacher performance in Shandong University through psychological contract.”	Through understanding motivation, transformational leadership empowers followers, encourages cooperation, and exceeds expectations.	Transformational leadership builds shared values, trust, and collaboration to achieve common goals.	How does transformational leadership affect organizations, and what research issues are identified?
Habeeb, Eyupoglu	2024	“Strategic planning, transformation leadership, and organizational performance: drivers of sustainability in higher education in Nigeria”	Through understanding motivation, transformational leadership empowers followers, encourages cooperation, and exceeds expectations.	Transformational leadership builds shared values, trust, and collaboration to achieve common goals.	How does transformational leadership affect organizations, and what research issues are identified?
Şahin, Bilir	2024	“The effect of transformational leadership and personal cultural values on creating a learning organization”	The results show transformational leadership is effective, while personal cultural values are partially effective.	This research examines the role of transformational leadership and cultural values in forming a learning organization.	How do transformational leadership and personal cultural values influence the creation of a learning organization?

*Source: Prepared by the authors based on data extracted from the articles.*

### 3.4 Authors' leadership positions

Of the 51 authors, 15 were lecturers, while the rest were researchers and undergraduate, master, and doctoral students; this implies that academic and Education activists often conduct studies on leadership, management innovation, change management, and educational institutions' performance. It is important to note that information about their leadership positions was taken outside the article as they did not provide such information. The information was obtained through a Google search of their names and the institutions to which they belong. Then, the information was selected according to the year of their article.

### 3.5 Linkage between theoretical foundations and research themes

In the context of research on theoretical fundamentals, it is very relevant to understand how TL can improve school performance. Based on the literature review in the document, TL significantly influences school performance through various mechanisms, including strengthening school culture, increasing teacher commitment, and higher job satisfaction. This theoretical basis suggests that influential school leaders can inspire and motivate staff to achieve collective goals and increase innovation in teaching methods. Transformational leadership includes four main dimensions: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. These aspects contribute to creating a school culture that supports performance improvement, where teachers feel supported and recognized in their efforts to develop effective and innovative teaching methods. This influence is often mediated by organizational commitment and a positive school climate, ultimately impacting student learning outcomes. This research emphasizes that the success of TL depends not only on the leader's personal qualities but also on the organization's support and the trust built between the leader and his colleagues; this is in line with the view that TL creates a sense of shared responsibility and strengthens commitment to educational goals.

### 3.6 Answers to research questions

RQ1: Key success factors in TL include emotional intelligence, self-awareness, motivation, and creating and sharing a solid vision. In addition, collegial support and a collaborative work environment are essential in facilitating leadership effectiveness.

RQ2: TL practices can significantly impact teachers, especially regarding work commitment and satisfaction. Research shows that teachers who feel supported by inspirational leaders are more likely to be highly motivated to improve the quality of teaching and remain loyal to the institution they work for.

RQ3: The impact of TL on educational performance includes improving student learning outcomes, increasing teacher involvement in the teaching process, and creating a more positive and conducive school climate for learning. Innovative teaching practices and an inclusive school culture often mediate these effects.

## 4. Discussion

In this study, it was found that TL has a significant influence on improving school performance, but various mediating factors often influence its impact. Factors such as school culture Yuan (2021), commitment, and teaching practices significantly affect the effectiveness of transformational leadership. This study's results align with the findings of Awodiji & Naicker (2024), who show that the impact of TL on student performance is often mediated by teacher effectiveness and school climate. In addition, the study also highlights the importance of contextual aspects, such as organizational stability and resource availability, which can affect the successful implementation of TL. Several studies have criticized TL's effectiveness in Education over the last five years. These studies highlight that while there is evidence to support the positive impact of TL, its effectiveness often depends on contextual and organizational conditions. For example, research by Şahin and Bilir (2024) shows that while TL is efficacious in improving school performance, its effects can be limited if relevant cultural values in the school do not support it; this suggests that the application of this leadership style may not be entirely successful in environments with different cultures or that do not support an inspirational leadership approach.

In addition, a study by Mulyadi and Sobri (2024) revealed that although the TL of madrasah heads in Bengkulu is considered positive, there are challenges in the inclusivity aspect; this shows that TL, while it can increase teacher commitment and performance, requires a more inclusive approach so that all parties can feel the impact equally.

Although older, research by Barnett et al. (2001) remains relevant and reinforced by new studies that show that the stress created by the demands of TL can lead to teacher burnout. This effect is more pronounced in less stable environments or with limited resources. Moreover, this is relevant to the findings of Leithwood and Jantzi (2005), who found that this leadership style is more effective in schools with strong organizational support and adequate resources. However, this study also has criticisms and limitations. Leithwood and Jantzi (2005) stated that the effectiveness of TL tends to decline in schools with limited resources. Barnett et al. (2001) highlighted that high emotional stress on teachers can lead to burnout. In addition, the long-term impact of this leadership is questionable because of the potential disruptions that arise when a transformational leader leaves office (Leithwood et al., 1996).

Another weakness identified in this study is the limited geographical scope and period, which affects the generalization of the findings. Armiyanti et al. (2023) emphasized the need to explore specific pathways in which TL influences education services and the need for more holistic research, including cross-cultural approaches and blended methods.

One of the critical points in this discussion is that although TL contributes to increased teacher job satisfaction, which is associated with teacher retention and better quality of Education Ronksley & Neumann (2022), it improves teacher motivation and performance; the study also shows potential risks such as burnout in teachers if expectations are set too high (Ma et al., 2021) As such, it is crucial to consider the balance between the demands of leadership and the well-being of teachers.

In the future, research needs to explore how contextual factors, such as organizational culture and technology, affect the effectiveness of TL. Cross-cultural studies and longitudinal research are recommended to understand these leadership dynamics better.

In conclusion, TL has a strong positive impact on improving school performance, but its success depends on contextual and organizational factors. This approach requires conducive environmental support and must be combined with other leadership styles to ensure a sustainable and balanced impact

## 5. Discussion

This study concludes that TL is essential in improving school performance by inspiring and motivating staff, building commitment, and encouraging innovation in teaching. However, its effectiveness is greatly influenced by contextual factors such as organizational culture, collegial support, and available resources. These results confirm that while TL is an effective tool for improving school performance, its application must be tailored to each school's specific needs and unique conditions (Alzoraiki et al., 2023)

### 5.1 Implications

The results of this study have several implications for school leaders, policymakers, and education practitioners. (1) TL can be used to create a supportive school environment where teachers feel valued and motivated to innovate. However, paying attention to the balance between work demands and teachers' welfare is essential so that burnout does not occur. (2) Policy implications involve the need to support leadership development programs for principals that focus on transformational aspects, including training on motivating staff and managing change effectively. (3) Teachers and support staff can benefit from the work environment created by transformational leaders, where they can develop professionally and contribute to creating a positive school atmosphere.

### 5.2 Recommendations

For future research and practice, here are some of the proposed recommendations: (1) There is a need for a training and development program for school principals that emphasizes elements of TL, such as inspirational motivation and intellectual stimulation. (2) A longitudinal study is recommended to assess the long-term impact of TL on school performance and teacher welfare. (3) The integration of TL with other leadership styles, such as instructional or participatory leadership, can be explored to understand the combined influence on school performance. (4) Further research is needed to identify burnout prevention strategies in implementing transformational leadership.

**Author Contributions:** Conceptualization and Research Design, Ardin Sianipar led the conceptualization of the study, formulating the research questions, and designing the research methodology, including focusing on transformational leadership in the context of school performance AND Ayu Yulianti Putri contributed to the initial discussions that helped shape the study framework and provided input on the scope and focus of the research. Data Collection: Ardin Sianipar was primarily responsible for data collection, including conducting the systematic literature review, selecting articles from academic databases, and organizing data in line with inclusion and exclusion criteria AND Ayu Yulianti Putri supported the data collection process by organizing data tables and making adjustments to selection criteria to ensure consistency. Data Analysis: Ardin Sianipar conducted a thorough data analysis, including identifying key themes and coding findings. He synthesized results within the context of transformational leadership and school performance AND Ayu Yulianti Putri contributed by verifying and validating the analyzed data, offering feedback on data interpretation, and assisting in creating flow diagrams and supporting tables. Reference Management: Ayu Yulianti Putri led the compilation and formatting of references according to journal guidelines, ensuring all cited works were relevant and up-to-date AND Ardin Sianipar verified the sources used to ensure the validity of the study's findings. Manuscript Submission and Coordination: Ardin Sianipar managed communications with the journal, including the manuscript submission and follow-ups on any



required revisions AND Ayu Yulianti Putri provided administrative support, helping coordinate responses to reviewer comments.

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**Conflicts of Interest:** The authors, Ardin Sianipar and Ayu Yulianti Putri, declare that there are no conflicts of interest regarding the publication of this study. The research was conducted independently and objectively, without any influence from personal, financial, or institutional relationships that could affect the study's outcomes. All findings and interpretations are based solely on rigorous data analysis and scholarly integrity.

**Informed Consent Statement/Ethics approval:** This study was conducted in accordance with ethical guidelines for research. Informed consent was obtained from all participants involved, ensuring they understood the purpose, methods, and potential implications of the study. Participation was voluntary, with assurances of confidentiality and anonymity. The study received ethics approval from the relevant institutional review board, underscoring compliance with ethical standards and respect for participant rights and welfare throughout the research process.

**Data Availability Statement:** The data utilized and analyzed in this study are available upon reasonable request from the corresponding author, Ardin Sianipar. Due to ethical considerations and confidentiality agreements, sensitive data are restricted to protect participant privacy. Non-identifiable data, however, may be provided for academic and research purposes upon request, in accordance with ethical guidelines and data-sharing policies applicable to this study.

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## What Makes an Efficient Adult Inmates' Trainer?

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### Abstract

Second Chance Schools operating under the strict framework of the prison are an innovative educational institution in the field of Adult Education and confirm the invaluable value of corrective education. The peculiarities of the prison area and the socially vulnerable group of trainees require the staffing of Second Chance Schools Prisons with adult trainers equipped with appropriate skills and abilities to meet their complex, demanding and expanded educational role. This article analyzes the profile of an effective adult trainer of incarcerated individuals through a case study in Greek Second Chance Schools in Prisons. Specifically, it explores the necessary knowledge, skills, and attitudes that a trainer must possess in order to be effective in their role. Semi-structured interviews (convenience sampling) were conducted with 13 trainers at two Greek Second Chance Schools operating within correctional facilities. The data were analyzed using thematic content analysis. As the research indicates, the essential knowledge required for trainers includes the principles of adult education, the principles of educating vulnerable social groups, and knowledge of intercultural education. Key skills identified include communication, the ability to perceive the needs of inmate learners, and the management of problems and conflicts. Trainers consider fundamental attitudes to be acceptance, respect, setting boundaries in the trainer-trainee relationship, and humor.

**Keywords:** Corrective Education, Second Chance Schools in Prison, Adult Inmates' Trainer

### 1. Introduction

Inmate education plays a crucial role in changing prisoners' behaviors and preparing them to live harmoniously within both the prison environment and, later, in the wider community. The ultimate objective of such educational programs is to break the "cycle of crime" by addressing the root causes of criminal behavior and equipping prisoners with the tools necessary for rehabilitation and successful reintegration (The Pew Charitable Trusts, 2010, p. 23). Over time, it has become widely accepted that adult education for prisoners is essential not only for their personal development, but also for their successful social reintegration, contributing significantly to reducing recidivism and preventing future criminal activity (EC, 2011).

In Greece, the concept of corrective education has been integrated through the introduction of Second Chance Schools (SCSs) in prisons, as part of efforts to modernize and improve the correctional system. These schools are

specifically designed to provide inmates with the opportunity to complete their basic education, something many may not have had the chance to pursue outside the prison system. The initiative is grounded in the fundamental principles of Adult Education, which emphasize learner-centered approaches and acknowledge the diverse needs of adult learners. The primary aim of Second Chance Schools is to address social exclusion by offering prisoners—often a vulnerable and marginalized group—the chance to gain educational qualifications, which are critical for their successful reintegration into society. By tailoring educational programs to the individual characteristics, needs, and learning styles of inmates, these schools aim to equip them with the necessary skills and knowledge to re-enter both the workforce and society in a meaningful way.

The importance of adult trainers in correctional settings cannot be overstated. Trainers working in prisons, as well as those engaged with other socially vulnerable groups, have a profound impact on the rehabilitation and educational outcomes of their students. These trainers are tasked with navigating the complex challenges that prisoners face, including limited literacy, past trauma, and psychological or social barriers that may hinder their learning. Their role is not just to impart knowledge, but to provide a supportive, motivating, and structured learning environment that fosters personal growth and skill development. To effectively engage with incarcerated learners, adult trainers must be equipped with both formal qualifications and practical experience, as their work often involves addressing multifactorial barriers to learning—such as low educational attainment, lack of prior social support, and systemic marginalization—while working within the constraints and unique challenges of the prison environment (Papaioannou, Anagnou & Vergidis, 2016).

Moreover, the educational process in correctional facilities is inherently rehabilitative, as it not only provides academic knowledge, but also instills critical life skills, enhances self-esteem, and promotes social responsibility. Through tailored programs, adult trainers help prisoners build the competencies necessary for their reintegration into society, including emotional regulation, problem-solving, and communication skills. In this way, the role of adult trainers transcends traditional teaching; they become key figures in the rehabilitation process, providing inmates with the resources and guidance needed to reshape their futures.

## **2. The Role of the Adult Trainer in Correctional Settings**

Adult trainers in correctional facilities, as well as those working with other socially vulnerable groups, play a vital role in the educational and rehabilitative processes of these populations. Their approach is grounded in adult education methods, which are tailored to meet the specific needs of adult learners who often face a complex array of personal, social, and psychological challenges. The trainer's role is multifaceted and requires a combination of formal qualifications and practical experience to effectively engage with learners who face multifactorial barriers to learning—such as limited literacy, prior trauma, and societal marginalization—and to operate within a framework of constraints and challenges that are both unique and demanding (Papaioannou, Anagnou & Vergidis, 2016).

Adult education in correctional settings is not just about imparting academic knowledge, but also about fostering personal growth, skills development, and reintegration into society. These trainers must work within a constrained environment that often includes limited resources, restricted access to teaching materials, and constant security concerns, all of which make their work challenging. Despite these challenges, adult trainers play a crucial role in shaping the lives of incarcerated individuals, helping them overcome barriers, and encouraging positive change.

The role of the adult trainer in prisons is central to the success of educational programs that aim to reduce recidivism and support the rehabilitation of incarcerated individuals. Jarvis (2006, pp. 71-72) outlines the numerous roles that an adult trainer must fulfill. These include being a mediator of knowledge, an instructor, a counselor, a mentor, and even an administrator. This broad spectrum of responsibilities requires trainers to engage in a wide range of activities, from delivering formal lessons to addressing the psychological and emotional needs of the learners. As such, the trainer must possess not only expertise in the subject matter but also a deep understanding of the learners' life experiences, the psychological impacts of incarceration, and the unique social challenges they face.

Moreover, the role of the trainer cannot be defined in a rigid, static way, as it is continuously shaped by evolving social, economic, and political conditions, as well as by the policies set by the institutions and organizations that offer educational programs (Caffarella, 1994). For example, as new research in adult education emerges, prison trainers may adopt innovative pedagogical strategies, such as incorporating technology or providing more learner-centered and individualized instruction. These changes require flexibility and ongoing professional development to ensure that trainers can meet the diverse needs of their learners.

In correctional settings, trainers are responsible for providing educational opportunities that can significantly impact the future of incarcerated individuals. These opportunities often include literacy and numeracy programs, vocational training, and life skills development (Frey, 2014). The goal is to equip learners with the necessary skills to reintegrate into society successfully upon their release. Trainers must design their lessons in a way that connects to the learners' real-world needs, ensuring that the knowledge gained is practical and immediately applicable in their daily lives. This might involve offering courses that focus on basic skills such as communication and problem-solving, as well as vocational training in fields such as construction, culinary arts, or computer literacy (Stephen, 2012).

Adult trainers in prisons also need to apply adult learning principles to their teaching practices. These include promoting self-directed learning, acknowledging the importance of the learners' lived experiences, and encouraging critical thinking. By doing so, trainers help learners build confidence, develop a sense of agency, and understand the value of education as a means of personal empowerment (Tzatsis et al., 2019 a). Additionally, by creating a safe and supportive learning environment, trainers can facilitate social inclusion and help reduce feelings of isolation, a common challenge in correctional settings. Building trust between trainers and learners is crucial, as it enables the creation of a rapport that encourages inmates to engage more fully with the educational process (Cleere, 2021; Vandala, 2019).

### *2.1. The Challenges of the Work of the Inmates' Adult Trainer*

The profession of inmate trainers is increasingly challenging, with little professional recognition (Sayko, 2005). According to Carr (2001), the legal reality in prisons poses risks not only to trainers' lives but also to their careers. These challenges stem from various barriers within prison education, including pre-existing social and educational inequalities (Tsimboukli, 2008), and both internal and external obstacles (Muñoz, 2009). In light of these factors, research identifies three main types of challenges faced by adult trainers in prisons: (a) cultural shock, (b) deficiencies in knowledge and skills, and (c) existential and philosophical crises (DelliCarpini, 2008; Jurich, Casper & Hull, 2001).

One of the first and most immediate challenges is the experience of cultural shock. Inmates' trainers are often unprepared for the cultural shock they experience in prison environments, which arises from misunderstandings of prison culture and the resistance of both inmates and staff to change (Patrie, 2017). As a result, the challenge of managing this shock is significant, given the pervasive negative attitudes towards outsider trainers.

Furthermore, deficiencies in knowledge and skills contribute to the difficulties faced by inmates' adult trainers. The heterogeneity of the inmate population complicates teaching, as many trainers lack expertise in communication, human behavior, and specialized teaching techniques (Patrie, 2017). Moreover, many are unprepared to handle inmates with learning disabilities, behavioral issues, or physical disabilities (Ely, 2011). Additionally, some trainers use outdated teaching methods that are not suitable for the prison setting (Gehring & Wright, 2006; Desir & Whitehead, 2010).

In addition to these practical challenges, trainers often face existential and philosophical crises due to the nature of their dual roles. Trainers must reconcile their roles as both teachers and reformers (Wright, 2004). This internal conflict, coupled with the toxic culture of the prison, can lead to burnout (Wright, 2005). To address this, trainers must also navigate the complexities of the correctional system, a challenge that requires time for reflection and the guidance of experienced colleagues (DelliCarpini, 2008; Hurkmans & Gillijns, 2012).

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To meet the unique demands of teaching in correctional settings, adult trainers must possess specific competencies. These include not only a strong knowledge of adult education principles but also a set of psychosocial skills that are essential for working with this particular population (Ryan et al., 2021). Resilience, empathy, patience, and conflict management skills are crucial for maintaining a positive and supportive learning environment, especially given the emotional and psychological challenges faced by many incarcerated individuals (Gelana & Hindeya, 2014). Moreover, trainers must be adaptable and creative in modifying their teaching strategies to fit the prison environment, where restrictions on time, space, and resources often make traditional classroom instruction difficult (Stephen, 2012; Tzatsis et al., 2019 a).

In addition, trainers need to be skilled in fostering a sense of hope and motivation among their learners. Many inmates may come to educational programs with limited belief in their ability to succeed, making it essential for trainers to create an atmosphere of encouragement and possibility. By helping learners see the value of education as a means to a better future, trainers play a key role in helping to break the cycle of recidivism and promote long-term personal change (Cleere, 2021; Vandala, 2019).

Ultimately, the adult trainer in correctional settings is instrumental in the reintegration of incarcerated individuals into society. The trainer's role is not only to impart knowledge and skills but also to facilitate personal growth, encourage social inclusion, and support the emotional and psychological healing necessary for successful reintegration. Despite the many challenges faced in correctional environments, adult trainers help to transform lives by providing hope, opportunity, and a path to personal and social renewal. By addressing the complex needs of incarcerated learners and leveraging their skills and competencies, trainers play a key role in reducing recidivism, promoting rehabilitation, and ultimately helping inmates become active, productive members of society (Hall, 2015; Vandala, 2019).

### 3. Second Chance Schools in Greek Prisons

There are currently 13 SCS in Greek prisons. More specifically, in 2004, the innovative institution of SCS was also introduced in prisons, and the first school operated in the Judicial Prisons of Larissa. Since 2005, SCS has been established in several prisons in the country, such as: Korydallos Attikis, Korydallos Prisoners Hospital Branch, Grevena, Trikala, Nigrita Serres, Diavata Thessaloniki, Patras, Eleonas Thebes, Domokos Fthiotida, Malandrino Fokidas, Chania Crete and Corfu.

The requirements for prisoners to register and attend classes at Second Chance Schools in Prisons are that they must submit their primary school diploma or an equivalent certificate if they are foreign nationals (a formal criterion). Additionally, prospective student-prisoners must be "disciplined and cooperative." This second criterion indicates that the prison environment overshadows the school within the prison (Alevizopoulos, 2015, p. 52). The "reward" for the prisoner-students, which also serves as an incentive for their participation in the Second Chance Schools in Prisons, is outlined in Article 38§8 of the Penal Code and in Presidential Decree 107/2001 ("Beneficial calculation of days of sentence for convicts-defendants"), as amended by Presidential Decrees 75/2005 and 126/2014. Prisoners who adequately attend or complete educational programs or other educational courses are granted a beneficial calculation of their sentence. Therefore, every day spent in the Second Chance School in Prisons is counted as two days of sentence reduction. Furthermore, the prisoner-students have the opportunity, as individuals who have been taught privately, to take exams within the prison and obtain a High School diploma. If they wish, they can also attend Higher Education Institutions after successfully participating in the national entrance exams.

#### 3.1. Second Chance School in Malandrino prison

The Detention Facility in Malandrino has been operating since 2001. The Second Chance School at the Malandrino Prison was established in 2015. At the beginning of the 2020-2021 school year, seventy-eight (78) prisoner-students were enrolled, but due to transfers and releases, the number decreased, and sixty-five (65) continued their studies. Forty (40) were in the First Cycle and twenty-five (25) in the Second Cycle. Their nationalities were as follows: twelve (12) Albanians, eight (8) Algerians, eight (8) Iranians, seven (7) Egyptians, seven (7) Pakistanis, six (6) Russians, six (6) Greeks, five (5) Arabs, four (4) Iraqis, and two (2) Roma. Seven (7) individuals from last year's graduates have continued their studies in high school as individually taught students, and all of them were promoted. During the 2019-2020 school year, graduates of the Second Cycle received an ECDL (European Computer Driving License) certification after exams. Out of the eighteen (18) who participated, seventeen (17) successfully obtained the certification.

#### 3.2. Second Chance School in Domokos prison

The Domokos Prison has been operating since 2008. Since the beginning of its operation, the Domokos detention facility has had full infrastructure for the operation of a school within the prison, and thus the Second Chance School (SCS) has been operating from the start.

During the 2020-2021 school year, a total of forty-nine (49) students were attending the two cycles of the SCS. Twenty-three (23) in the First Cycle and twenty-six (26) in the Second Cycle. Specifically, in terms of their nationalities, the prisoner-students came from: Albania (17), Greece (10), Afghanistan (5), Syria (4), Bulgaria (3), Pakistan (3), Iraq (2), Algeria (2), Ukraine (1), Latvia (1), and Georgia (1). Their age range was from sixty-five (65) to twenty-two (22) years.

The teaching staff consists of six (6) trainers in total: three (3) permanent teachers on secondment for the 2020-2021 school year, two (2) women and one (1) man, and three (3) part-time trainers, two (2) women and one (1) man.

During the 2018-2019 school year, one graduate successfully gained admission to a Higher Technological Educational Institution for Nursing through the national entrance exams. In this case, the SCS operated as an



examination center in September 2019. In the 2019-2020 school year, three (3) graduates were selected by the Hellenic Open University and enrolled in the undergraduate program in Studies on Greek Culture. In the same academic year, five (5) graduates enrolled in the First Year of the General High School of Domokos as individually taught students. Four (4) were promoted, and one (1) was referred for reassessment. Additionally, three (3) graduates enrolled in the Second Year of the General High School of Domokos as individually taught students (two (2) were promoted, and one (1) was referred for reassessment).

In the summer of 2019 (2018-2019 school year), a Summer School was operated through ARSIS, where classes in creative writing, choir, computer science, human rights, and shadow theater were held. In collaboration with APICCO, theatrical play and yoga classes were also offered. These extracurricular activities were a fortunate opportunity for the prisoner students and teachers, which unfortunately could not be continued in the 2019-2020 school year due to the restrictive measures imposed by the Covid-19 pandemic.

#### **4. Method**

This section presents the research methodology.

##### *4.1 Research question*

Our research question was: “What are the knowledge, skills, and attitudes that the trainers in the sample consider essential for the effectiveness of their work?”

##### *4.2 Research Method -Research Tool*

The data collection method was qualitative, because the purpose of the research is to investigate and understand a central theme (Creswell, 2011). The research strategy followed is a case study, since it concerns trainers in two particular SCSs, that of Domokos and Malandrino Prisons during the school year 2019-2020. According to Robson (2010), a case study is more a research strategy than a research method and focuses on a phenomenon in its context. This strategy was chosen, because the SCS educational framework and the prison environment are very important and also difficult to be accessed by the researcher (Yin, 2003). According to Mason (2003), the data collection technique or better the data production technique was the semi-structured interview, a tool that enables the sequence of questions to be modified (Cohen & Manion, 1994), the choice of emphasis in the most essential aspects of each respondent (Fylan, 2005; Robson, 2010), but requires critical communication skills from the interviewer (Galletta, 2013). Therefore, this tool has been chosen as the most appropriate to highlight the views of the participants.

##### *4.3 Sample*

The participants of the survey were the inmates' adult trainers of the SCS of Domokos and Malandrion Prisons during the school year 2019-2020. The participants in the study (convenience sampling) consist of thirteen (13) trainers from the Second Chance Schools of Domokos and Malandrino. Of these, five were men and eight were women. Regarding age: eight were in the 35-44 age range, four were in the 45-59 age range, and one was over 60. Regarding educational level, twelve hold a master's degree, four of them hold a second master's degree, one has a PhD, and one holds only a bachelor's degree. In terms of specialization, three of the thirteen are philologists, two are mathematicians, two are English language philologists, one is an economist, one is a computer science teacher, one is in social sciences, and one is a psychologist. Undoubtedly, the participants in this survey do not represent the entire population of adult inmates' trainers of SCS in Greece, and consequently, the research results are not generalizable.

##### *4.4 Data analysis method*

For the analysis of the collected data, content analysis was used. This is a research method that employs a set of procedures, methods, and techniques to draw valid conclusions (Weber, 1990, p. 9). It is a research technique that

systematically and objectively leads the researcher to verifiable and valid conclusions derived from written texts and the decoding of interviews (Krippendorf, 1989, p. 7-9). Furthermore, the thematic content analysis allows quantification of the results (Trowler, 1996; Vamvoukas, 2002), which was attempted in this research.

(1)

## 5. Results

This section portrays the research results.

### 5.1. Prerequisite Knowledge for Trainers to Respond Effectively to the Education of Adult Prisoners

According to the opinions of the participants, the knowledge required for trainers to better fulfill their role as trainers for incarcerated adults and the frequency of their references are shown in the table below (Table 1).

Table 1: Categories of Required Knowledge and the Number of References by Trainers from Domokos and Malandrino

<i>Categories of Knowledge</i>	<i>Number of References</i>
Principles of Adult Education	13
Education of Vulnerable Social Groups	9
Good knowledge of the subject matter, teaching competence, and pedagogical competence	3
Special Education	2
ICT (Information and Communication Technologies) Knowledge	2
Experience	2
Intercultural Education	1
Applied Criminology	1
Knowledge of Psychology	1
Knowledge of the functioning of the penal and correctional system	1
Willingness for personal exploration	1
<i>N = 13</i>	

As derived from the data analysis, all trainers consider knowledge of the Principles of Adult Education as essential for carrying out their educational work. In response to a related question, Trainer E9 states that an adult prison trainer must: "certainly possess knowledge of the Basic Principles of Adult Education, as these individuals require a differentiated form of teaching to capture their interest and primarily to help them forget the difficulties they face in their daily lives. The knowledge provided must also have practical content so that they feel it will benefit them during their eventual release." Similarly, Trainer E6 mentions: "They should know and apply practices that are suitable for adults."

Nine (E1, E4, E5, E7, E8, E10, E11, E12, E13) out of the thirteen trainers emphasize that, alongside knowledge of Adult Education, they should also possess knowledge of educating vulnerable social groups. For example, Trainer E1 says: "You definitely need to know about Adult Education and, of course, education for vulnerable social groups." Trainer E4 highlights the importance of managing vulnerable groups, stating: "And knowledge related to managing groups, vulnerable groups, is what we should focus on when working in a prison environment." Trainer E11 shares a similar perspective: "They must have training in Adult Education, they must have training in this area, and also knowledge of group management, and of course, training in vulnerable social groups, I think that is essential." Similarly, Trainer E5 says: "Obviously, there should be specialized seminars, which should be at various levels... both in terms of handling prisoners and in terms of teaching methods, considering the materials available in these particular schools because the learning process there cannot be separated, everything is interconnected, the educational process is not autonomous from the 'social' life of the prisoners."

In addition to the above, two trainers mention that prison trainers must also have knowledge of special education. Trainer E12 specifically mentions: "You need to have knowledge of special education to recognize the differences. There needs to be tolerance for diversity, both as a mindset and as an approach to teaching, human beings, and society." Trainer E13 adds: "You should have knowledge of special education because, in some way, special education and the prison context somewhat... overlap."

Three (E3, E5, E6) trainers speak about the importance of having a strong knowledge of the subject matter and pedagogical competence. Trainer E3 provides a characteristic response: "First of all, I must have knowledge of my own subject, because in this way, if someone has a good understanding of their subject, they can motivate the group of learners." Meanwhile, Trainer E10, in addition to pedagogical competence, emphasizes the importance of knowledge in inclusive education and psychology for prison trainers: "It would be good for all adult trainers to have pedagogical competence and knowledge of psychology, definitely intercultural education in the sense of inclusion because not all trainers working in this field are familiar with it." Trainer E8 also mentions the importance of intercultural education: "There needs to be an education, especially intercultural education, because prisoners come from many different countries."

Two (E6, E8) trainers emphasize the value of ICT knowledge for prison trainers, stating: E6: "It is also very important for the trainer to have ICT knowledge because presentations are done using computers, videos, and so on." E8 also mentions: "It is very important that the trainer can use audiovisual materials. Knowledge and use of ICT help a lot."

Some trainers (E5, E13) mention that the experience of trainers in prison education is valuable, but not a cure-all. For example, Trainer E5 states: "Experience is important, of course, in relation to the will of the governing authorities regarding how a prison and a school within a prison should operate." Trainer E13 points out: "Experience definitely matters, but you can accumulate many years of teaching without actually engaging in any meaningful education."

It is worth noting the opinions of two trainers regarding the necessary knowledge related to the functioning of the penal system in the field of correctional education. Trainer E11 mentions: "I think training in the penal system, in the correctional part, is necessary... a little bit of criminology to understand these people." Furthermore, Trainer E13 adds: "I think training in applied criminology is essential, because I want to get into the mind of the offender! I believe that if we don't put ourselves in their shoes, we cannot approach them, no matter what we do."

It is important to underline the opinions of some trainers (E2, E8, E13) that, apart from formal qualifications, trainers must love what they do and have a willingness for personal exploration and engagement with the education of prisoners. Characteristic responses include: E8: "Knowledge of Adult Education is necessary, but I don't think it's the most important. The most important thing is to be sensitive, to have empathy, to care for the troubled prisoners, to care, to hurt, and to want to help. You have to dedicate yourself, you dedicate yourself in there. Without dedication, you accomplish nothing, you leave empty-handed." Similarly, Trainer E13 states: "Some knowledge... but this might be a bit risky, such as psychology or perhaps sociology. It would definitely be more helpful, but I think this would help any trainer in any educational setting. Being able to understand the classroom, its dynamics, knowing its history, the relationships, and so on. So, beyond formal qualifications, the most important thing is personal exploration and personal involvement with the subject, with the understanding that this is a unique group of learners, who may be considered vulnerable, and unfortunately, they may become vulnerable even towards the trainers."

From the above, it is clear that, according to the opinions of the trainers from the Special Vocational Education Centers (SDEFs) of Domokos and Malandrino, the knowledge required for carrying out their educational tasks includes the following: Principles of Adult Education, Education of Vulnerable Social Groups, a combination of both, strong knowledge of the subject matter, special education knowledge, ICT knowledge, experience, intercultural education (inclusive education), applied criminology knowledge, sociology, knowledge of the functioning of the penal and correctional system, and finally, a willingness for personal exploration.

### 5.2. Prerequisite Skills for Trainers to Respond Effectively to the Education of Adult Prisoners

The analysis of the data, as derived from the responses of trainers to the related question, highlighted the following categories of skills that trainers need to possess in order to perform their educational work more effectively, as shown in Table 2 below.

Table 2: Trainer Skills for Implementing Their Educational Work

<i>Skill Categories</i>	<i>Number of References</i>
Communication	5
Empathy	5
Ability to perceive the needs of the incarcerated learners	4
Problem, conflict, and stress management	4
Use of technology	2
Organization	2
Flexibility - Creativity	2
Engaging interest	1
Goal setting	1
Mutual respect	1
Teamwork	1
Sensitivity	1
<i>N = 13</i>	

Through the qualitative analysis of the data gathered, communication emerged as a fundamental skill for trainers, as it defines the relationships between the incarcerated learners and the trainers. Five (E1, E4, E6, E7, E11) out of the thirteen trainers mentioned this skill, emphasizing it as the most important. Specifically, E11 states: "I think that the key skill is communication... You have to treat each learner differently, you have to somewhat understand them psychologically, get to know them, in order to communicate... to understand and empathize with their problems." Similarly, E1 emphasizes not only communication but also creativity, teamwork, and flexibility, saying: "Another skill is creativity, to get them involved in the process of creating. For example, we ask them to write poems... Communication is an important skill... the skill of teamwork, where the trainer should feel part of the group with the learners, seeing them as a team... Flexibility is necessary because prisoners can easily misinterpret things, so in those moments, you need flexibility to ease the situation and avoid making them feel uncomfortable."

The next important skill highlighted by the analysis of trainers' responses is empathy. Five (E3, E4, E7, E11, E13) out of the thirteen trainers emphasized the importance of this skill for understanding the world of prisoners from their perspective. E11 states: "A key skill for the trainer is empathy, to understand their problems, to feel their situation. The most important thing is that all their problems come into the classroom, they can't leave them behind." Similarly, E13 adds: "Empathy is a very important skill because their psychology changes, and the trainer needs to recognize this." E4 further emphasizes: "I insist on empathy because I believe that our effort to understand the difficult situation these people are in is the foundation of building a balanced relationship."

Some (E8, E10, E13) trainers also mention the importance of the ability to manage problems and conflicts that arise, as well as managing the trainer's own stress with confidence. E13 explains: "Crisis management skills are necessary because conflicts can arise easily, even within the school environment, which is the worst case, but even more so in the classroom or within the group. Also, stress management skills are essential because prison is a stressful environment and this can negatively affect the trainer if they enter the classroom anxious. If a trainer with no prior experience in prisons enters with high anxiety, it will immediately pass to the students and create a bad precedent in the classroom, so confidence is also essential." E10, citing an example, highlights the importance of

resolving conflicts promptly and correctly: "You need to be able to resolve conflicts because it has happened to me in class, where students were arguing, and I had to manage the situation right then and there."

Four (E6, E9, E8, E13) out of the thirteen trainers mention the importance of the trainer's ability to perceive the needs and problems of the incarcerated learners. E9 states that this ability is key to the effectiveness of the educational work, highlighting mutual respect among all involved during the educational process: "The ability to understand the learners' demands and needs is important, and certainly, we must also have mutual respect and understanding of their problems in order to carry out our work effectively." E13 adds that this should be done individually: "The ability to perceive each learner's individual needs should be individualized, or at least grouped in small groups."

Two (E4, E10) trainers believe that technology skills are also important. E10 specifically states: "The trainer must certainly possess computer skills; I consider this self-evident." E4 believes that using technology significantly aids in the educational process: "Using technology helps a lot because you can do many things within the classroom using a computer or a television, so I think this is a fundamental skill."

In addition, trainers mention the importance of organization, goal setting, and engaging the interest of the incarcerated learners. Specifically, E6 states that the trainer must be: "Organized, with clear goals from the start, with a plan for what they want to teach, what they want the learners to learn, and what they aim to accomplish. They must also make the lesson interesting and engaging."

In summary, the skills that trainers at the Domokos and Malandrino Prison Education Centers believe are necessary for them to be effective in their educational roles are communication skills, problem-solving and conflict resolution, empathy, creativity, flexibility, sensitivity, mutual respect, the ability to perceive the needs of incarcerated learners, goal setting, engaging interest, and technology use skills.

### 5.3. Attitudes of trainers during the educational process

From the relevant interview question about trainers' attitudes toward incarcerated learners, thirteen categories of attitudes emerged, with their frequency of mentions presented in Table 3 below:

Table 3: Trainers' Attitudes

<i>Trainer's Attitudes</i>	<i>Number of References</i>
Understanding-Acceptance	3
No Prejudices	3
Sincerity	3
Boundaries between trainers and prisoners	3
Fearlessness	2
Seriousness-Stability-Consistency	2
Love, kindness, humor, discretion	2
Openness	1
Respect	1
Morality	1
Sensitivity	1
Friendliness	1
Fairness	1
<i>N = 13</i>	

Three (E1, E4, E11) out of the thirteen trainers emphasized the importance of understanding the difficult situations that incarcerated learners face in prison. For instance, E1 states: "There must be understanding. We need to

understand the difficulties these people face... the prison environment is not one of the best, the conditions they live in are very difficult, so I can't just tell a learner the next day 'why didn't you study' if I know they're on medication or are a drug addict. So first and foremost, I need to understand the difficulties they have inside their cell." They also stressed the importance of accepting their differences, as E11 connects this with respect for diversity, openness, and sincerity without fear: "The trainer must accept diversity. One of the characteristics of this school is multiculturalism. Most of the learners are foreign, of different ages, there are Muslims, Christians, and atheists. In any case, different knowledge, cultures, and mentalities. I think you must be open, respect diversity, be sincere in your relationship with them, and never promise things you can't deliver, don't say big words, don't be afraid, show genuine interest. They greatly appreciate this." Additionally, E8 and E9 point out that the trainer must be fair and not racist. E8 says: "They should be fair, treating everyone equally without discrimination, whether they are Roma, illiterate, or dirty. They were very impressed when I hugged all of them, they really needed to feel embraced. It was very important for them. I mean, you must show real interest in these people, be fair, and treat everyone equally, not be racist." E9 adds: "Our attitude should radiate respect, not fear or indifference." Concerning the attitude of the trainer regarding prejudice, E10 says: "You shouldn't think of the learner as a prisoner. You shouldn't be prejudiced. First, treat them as an adult learner, then consider they are incarcerated. Because the latter means you must be more careful with your behavior since some things that might not be offensive to us could be to them. You shouldn't be racist; it's very difficult for a racist to come into a prison education center."

Some trainers (E2, E4) mention that they should be friendly to the incarcerated learners but with boundaries. E2 states: "The most important thing is to be friendly but not a friend. They weigh you up. You have to be friendly, of course, because if they sense hostility, you won't be able to engage with them. But you must draw a red line and never let anyone cross it. This is difficult at times because they might misunderstand you." For a different type of clear boundary-setting attitude, three (E6, E9, E10) trainers mention the importance of maintaining proper distance. E9 says: "We need to maintain the necessary distance between the trainer and the learners so that the work can be done properly, while understanding the peculiarities and reactions of the people involved." E6 adds: "There must definitely be a boundary-setting attitude; the rules should be clear from the start so that no one crosses them."

## 6. Conclusions

From the analysis of our research data, the following conclusions emerged regarding the required knowledge, skills/abilities, and attitudes that an adult trainer of incarcerated individuals needs to have:

A) Regarding the required knowledge: All the trainers in the sample consider the following knowledge to be essential:

- Principles of adult education,
- Principles of educating vulnerable social groups (Tsimboukli & Fillips, 2010),
- In-depth knowledge of the subject matter, teaching methods, and pedagogical competence of the adult educator (Patrie, 2017; Tzatsis et al., 2019b),
- Knowledge of special education,
- Knowledge of ICT (Information and Communication Technology),
- Experience in Second Chance Schools in Prisons,
- Knowledge of intercultural education (Vergidis, Asimaki & Tzintzidis, 2007; Magos & Simopoulos, 2010),
- Knowledge of applied criminology, psychology, sociology, and knowledge related to the functioning of the penal and correctional system (Wright, 2005),
- Willingness and readiness on the part of educators for personal exploration and development.

B) Regarding skills: The trainers in the sample stated that they must possess:

- Communication skills (Patrie, 2017),
- Ability to perceive the needs of incarcerated learners (Tsimboukli & Fillips, 2010; Papaioannou, Anagnou & Vergidis, 2016),
- Empathy (Tsimboukli & Fillips, 2010; Tzatsis et al., 2019b),

- Skills for managing emerging problems, conflicts, and stress (Tzatsis et al., 2019b),
- Technology skills,
- Good organization and preparation for carrying out their educational duties,
- Flexibility and creativity,
- Ability to inspire collaborative spirit, teamwork, and mobilize the interest of prisoners (Tzatsis et al., 2019b).

C) Regarding attitudes: The trainers mentioned that their attitude towards the incarcerated learners is determined by:

- Understanding and acceptance (Wright, 2005; Desir & Whitehead, 2010; Tsimboukli & Fillips, 2010),
- Respect (Papaioannou, Anagnou & Vergidis, 2016),
- Boundary setting in the trainer-trainee relationship,
- Honesty (Ely, 2011),
- Rejection of stereotypical views and not presenting fear (Tzatsis et al., 2019b),
- Seriousness, stability, and consistency in the educators' behavior, as well as humor (Tzatsis et al., 2019b),
- A love of politeness and discretion (Touloumi, 2016),
- Ethical, open, friendly attitude, and sensitivity (Ely, 2011; Touloumi, 2016; Tzatsis et al., 2019b),
- A fair attitude of the trainers.

In conclusion, education in prisons inherently has many particularities, which makes the work of the adult educator of incarcerated individuals particularly demanding. As emerged from our research data, and is confirmed by the relevant literature, the educator must possess many characteristics in terms of knowledge, skills, and attitudes to perform their work effectively. This makes both the careful selection of educators and their targeted professional development, in line with their educational needs and the demands of their role, highly important.

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# Transformation of Madrasah Management: Strategy to Increase Public Trust in State Elementary Madrasah 1 Grobogan

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## Abstract

The transformation of Islamic education management is very important in increasing the competitiveness of madrasahs in the era of public school dominance, especially in areas with a strong santri culture. The purpose of this research is to analyze how madrasahs transform to increase public trust. By using a qualitative approach with a case study design, data were collected through interviews, observations, and documentation studies. The research found that MIN 1 Grobogan successfully implemented a management transformation strategy to increase public trust through several strategic steps. First, the madrasah focuses on building an innovative and quality image, promoting superior academic and non-academic programs. Second, transparent fund management and accountability in its use create public trust. Third, friendly and professional service by staff is an advantage. Improving the quality of teachers through continuous training and the use of information technology in learning is also prioritized. In addition, the integration of religious values and social skills through daily programs, as well as cooperation with local communities, is the key to improving student character. However, although this strategy was successful, this transformation also faced challenges in adapting educators and budget limitations for facility development. These findings provide an important contribution to understanding the dynamics of education management in madrasahs.

**Keywords:** Madrasah Transformation, Educational Management, Public Trust, Competitiveness, Educational Innovation

## 1. Introduction

Islamic education in Indonesia currently faces significant challenges amidst dynamic social changes and rapid technological developments. One surprising social fact is the low public interest in Islamic educational institutions, including madrasahs, even in areas with strong santri communities (Bakar, 2015; Lestari & Masyithoh, 2023; Rahman & Akbar, 2021). For example, MIN 1 Grobogan, located in Kuwaron Village, Gubug, Grobogan, Central Java, experienced a decline in the number of students, even though it is located in an environment where the majority of the community identifies with the santri culture. Furthermore, data from the Indonesian Ministry of

Religion (Kementerian Agama RI, 2020) shows that although the number of madrasahs in Indonesia is increasing, their attractiveness and quality are still often perceived as lower than in public schools. This phenomenon raises questions about the effectiveness of Islamic education management in meeting the expectations of society in the modern era, and the extent to which these institutions are able to compete with public schools in an increasingly competitive environment.

The literature highlights the significant potential of Islamic education, including madrasahs, in fostering character development and promoting Islamic values (Tholkhah, 1998). Then Tayeb (2018) emphasized that Islamic education in Southeast Asia, particularly in Indonesia, requires innovation in management and curriculum to remain relevant and address contemporary needs. Similarly, Subroto et al. (2023) and Umar (2015) identified innovation in madrasah management strategies and the integration of technology as critical factors in enhancing the attractiveness and competitiveness of Islamic educational institutions in meeting modern societal expectations. Meanwhile, Nata (2016) further noted that one of the reasons for the declining popularity of madrasahs is their limited ability to adapt to changing times, particularly in management practices. This review underscores that innovative management, which integrates Islamic values with modern competencies such as information technology and foreign languages, offers a promising solution to the challenges confronting madrasahs.

The purpose of this research is to analyze the management transformation at MIN 1 Grobogan as an effort to increase the attractiveness and trust of the community. By exploring the innovative steps taken by MIN 1 Grobogan, such as updates in the learning system, strengthening Islamic values through daily activities, and implementing effective marketing strategies, this research is expected to describe the real impact of adaptive management on public perception and student interest. This research also aims to contribute to the development of Islamic education management theory, focusing on how the combination of religious approaches and modern skills can create relevant and competitive madrasahs. Umar (2015) shows that the adaptation of madrasah management that is not responsive to changes in the times becomes the main cause of the lack of attractiveness of madrasahs from the perspective of the community.

Based on the above background, the implementation of innovative and adaptive management strategies at MIN 1 Grobogan can increase the attractiveness and public trust in madrasahs, as explained by Umar (Umar, 2014). Then Ridwan & Maryati (2024) stated that Islamic education that is responsive to the demands of the times has the potential to expand its scope and relevance among modern society. Therefore, this research argues that the combination of strong religious values and modern skills, such as foreign language skills and digital literacy, can be an effective model for other madrasahs in Indonesia to maintain their competitiveness in today's educational world.

## 2. Literature Review

In order to understand the management transformation that occurred at MIN 1 Grobogan, this literature review divides the focus of the research into two main aspects: material objects and formal objects. Material objects in this research refer to concrete elements that are changed in madrasah management to increase public appeal and trust, such as changes in curriculum, uniforms, and strengthening Islamic identity in the madrasah environment. According to Azra (2001), the global challenges faced by Islamic education, especially in Southeast Asia, require madrasahs to adapt to innovations in various fields. MIN 1 Grobogan, as one of the Islamic educational institutions in an area with a strong santri culture, presents an important case study on how concrete changes in management can have a significant effect on the image and competitiveness of madrasahs amidst the dominance of public schools. The efforts to transform madrasah include innovations in information technology-based learning and strengthening foreign language skills that show a response to the needs of modern education.

On the other hand, the formal object of this research is the Islamic education management approach itself, which is the conceptual framework for understanding transformation strategies. This formal approach involves a review of literature on innovative management in Islamic education, as described by Nata (2003) who emphasizes the importance of the role of adaptive management to ensure the competitiveness of madrasahs in the broader educational context. Improving the quality of teaching staff, learning facilities, and marketing strategies are

management elements that are considered capable of developing a positive image of the institution. In the context of MIN 1 Grobogan, the implementation of intensive marketing strategies, the introduction of daily religious activities, and the implementation of regular and uniform study hours are some real examples of the application of responsive education management concepts. With a structured education management approach, MIN 1 Grobogan is able to strengthen its position as a superior madrasah that is in demand by the community.

This literature review highlights that the combination of material innovation and the application of formal approaches in educational management is the key to the success of the transformation at MIN Kuwaron. The support from the local government and active participation from stakeholders have accelerated the process of adaptation and management renewal at this madrasah. Through a material and formal perspective, this research positions MIN 1 Grobongan as an example of successful madrasah management transformation, showing that the application of strong Islamic values can be in line with technological innovation and the needs of modern education. This success not only makes a positive contribution to increasing the number of students, but also strengthens the role of madrasahs in providing quality education that is in accordance with the development of the times and the needs of society.

### **3. Research Method**

This research focuses on the transformation of madrasah management and increasing public trust in MIN 1 Grobogan. The main objective is to explore the impact of management changes and public perceptions of the educational institution. Using a qualitative approach with a case study design, this research is expected to provide a deep understanding of the dynamics that occur in the context of madrasah management.

In this research, the main variable is the transformation of madrasah management which is operationalized through indicators to measure the success of management transformation, such as (1) image development (2) innovative, (3) transparent fund management, (4) staff professionalism, (5) improving the teacher quality, (6) integration of religious values and social skills, and (7) cooperation with local communities. Meanwhile, the public trust variable is measured by indicators (1) community satisfaction, (2) openness of information, (3) community support, and (4) positive perceptions of the quality of education in madrasahs.

Then the main data collection technique was carried out through in-depth interviews with the head of the madrasah, teachers, committees, and parents as many as seven people who were given the initials MIG 1 to MIG 7, to explore their experiences, views, and expectations regarding the management policies implemented. Thus, this research does not only rely on quantitative data, but also considers the subjective perspectives of teachers who have direct experience (Gammelgaard, 2017). In addition, direct observation was carried out to obtain a holistic picture of management practices in the madrasah and its contribution to increasing public trust. Documentation studies were used to enrich the data and provide historical context related to the development of the madrasah, which allows for a deeper understanding of the management transformation process that occurred (Houghton et al., 2015).

After the data is collected, the next step is to analyze the data using the Miles and Huberman model, which includes the stages of data collection, reduction, presentation, and drawing conclusions (Miles et al., 2018). This method was chosen because of its ability to process qualitative data systematically, in-depth, and relevant to the research objectives. In addition, to maintain data validity, this research uses triangulation by comparing information from interviews, observations, and documentation. The member-checking process is carried out by asking for confirmation from informants regarding initial findings, ensuring that data interpretation reflects real conditions in the field.

With this approach, this research is expected to provide useful insights into the contribution of madrasah management transformation to increasing public trust (Safarudin et al., 2023), as well as offer practical recommendations for more effective managerial strategies in developing education in madrasahs.

This research examines the transformation of madrasah management and its role in increasing public trust at MIN 1 Grobogan. The primary objective is to explore the impact of management changes on public perceptions of this

educational institution. Utilizing a qualitative approach with a case study design, this study aims to provide an in-depth understanding of the dynamics involved in madrasah management transformation. The main variable in this research is the transformation of madrasah management, operationalized through several indicators to measure its success: (1) image development, (2) innovation, (3) transparent financial management, (4) staff professionalism, (5) teacher quality improvement, (6) integration of religious values and social skills, and (7) collaboration with local communities. The public trust variable, on the other hand, is assessed through indicators such as (1) community satisfaction, (2) information transparency, (3) community support, and (4) positive perceptions of the quality of madrasah education.

The primary data collection technique involved in-depth interviews with the head of the madrasah, teachers, committee members, and parents—seven individuals in total—who were assigned the initials MIG 1 to MIG 7. These interviews aimed to explore their experiences, perspectives, and expectations regarding the implemented management policies. Consequently, this research does not solely rely on quantitative data but also incorporates the subjective perspectives of individuals with direct experience, particularly teachers (Gammelgaard, 2017). Additionally, direct observations were conducted to obtain a holistic understanding of management practices within the madrasah and their role in fostering public trust. Documentation analysis was also employed to enrich the data and provide historical context about the madrasah's development. This approach allowed for a more comprehensive understanding of the management transformation process (Houghton et al., 2015).

After data collection, the next step was data analysis using the Miles and Huberman model, which comprises four stages: data collection, reduction, presentation, and conclusion drawing (Miles et al., 2018). This method was selected for its systematic and in-depth approach to processing qualitative data, ensuring alignment with the research objectives.

To enhance data validity, triangulation was employed by comparing information obtained from interviews, observations, and documentation. Additionally, member checking was conducted by seeking confirmation from informants regarding preliminary findings, ensuring that data interpretations accurately reflect field conditions. Through this approach, the research aims to provide valuable insights into the contribution of madrasah management transformation in fostering public trust (Safarudin et al., 2023). It also seeks to offer practical recommendations for implementing more effective managerial strategies to advance education in madrasahs.

## 4. Research Result

### 4.1. Madrasah management transformation strategy to increase public trust

This research identified that the transformation of madrasah management at MIN 1 Grobogan, aimed at increasing public trust, was accomplished through various strategic initiatives. First, the madrasah prioritized building an innovative and high-quality image by promoting superior programs in both academic and non-academic domains, effectively attracting public interest and confidence in entrusting their children's education. Second, transparent financial management became a cornerstone of trust-building efforts. This transparency was reinforced by the madrasah's commitment to enhanced accountability in the use of operational funds. Third, friendly and professional service emerged as a key strength. The madrasah ensured that its staff consistently delivered excellent service to students and their guardians.

Additionally, improving the quality of teachers and educational staff was a priority. Continuous professional development programs were implemented to enhance their competencies, particularly in leveraging relevant information technology in teaching and learning activities. The madrasah also implemented a daily habituation program that integrates religious values and social skills, enabling students to excel academically while developing strong moral character. Finally, collaboration with the local community was strengthened to enhance learning quality. The madrasah actively involved parents and community leaders in various activities, fostering a sense of shared responsibility. Collectively, these strategies have successfully positioned MIN 1 Grobogan as a transparent, innovative, and high-quality educational institution, significantly increasing public trust.

#### 4.2. Improving the Quality of Learning

MIN 1 Grobogan demonstrates a strong commitment to building public trust through the provision of quality and innovative learning. One of the key strategic initiatives is updating the curriculum to align with contemporary demands, particularly in fostering technology skills. As noted by informant MIG1, *“Students’ IT skills are very good because the learning is IT-based, including exams,”* highlighting the importance of integrating technology into the curriculum. Additionally, the madrasah offers an English language interest program every Saturday, facilitated by alumni from the English department. This initiative was acknowledged by MIG3, who stated, *“The habituation of foreign languages is still ongoing, even English is one of the interest groups.”* These efforts are further complemented by religious programs, such as the daily habituation of *Asmaul Husna* and the *Dhuha* prayer each morning. As emphasized by MIG5, *“This religious habituation continues to be maintained as part of the madrasah’s identity,”* underscoring the prioritization of religious values. Through these various innovations, MIN 1 Grobogan has successfully created a learning environment that excels in academics, technology integration, and religious values. This holistic approach has attracted parents from diverse backgrounds, further solidifying the madrasah’s reputation as a trusted and quality educational institution.

Another notable transformation at MIN 1 Grobogan is the renewal of the learning system and student uniform regulations, aimed at fostering a disciplined and consistent Islamic environment. The principal introduced changes to the uniform policy, mandating headscarves and long clothing for female students and long pants for male students, reflecting Islamic values. As noted by MIG2, *“This change in uniform is in accordance with Islamic teachings and provides a strong identity.”* This uniform adjustment was complemented by a more structured reorganization of the learning schedule, ensuring uniform entry and exit times for all students. MIG4 highlighted the impact of this change, stating, *“Now the children study more regularly.”* These initiatives send a clear message to the community that MIN 1 Grobogan is committed to instilling discipline and Islamic values. The findings of this research indicate that such changes have successfully attracted community interest, particularly among parents seeking an educational environment that prioritizes Islamic principles for their children’s development.

This aligns with the results of observations conducted on August 29, 2024, which highlighted significant changes in the learning system and the enforcement of student uniform regulations at MIN 1 Grobogan. These observations underscore the principal's initiative in fostering a disciplined environment consistent with Islamic values. One of the most notable changes is the implementation of a new uniform policy, requiring female students to wear the hijab and modest long clothing, while male students wear long pants. This policy not only reflects adherence to Islamic teachings but also instills a strong identity among students, fostering a sense of pride and attachment to religious values. Additionally, the study schedule was reorganized to be more structured, with standardized entry and exit times for all students. Observations revealed that students appeared more focused and orderly during the teaching and learning process, reflecting the positive impact of these changes. These efforts convey a clear message to the community that MIN 1 Grobogan is committed to cultivating discipline and reinforcing Islamic principles. The strong support from parents and the wider community for these policies highlights their aspirations for quality, religion-based education that nurtures both academic excellence and moral character in their children.

In addition to reforms in the learning system, MIN 1 Grobogan places significant emphasis on strengthening Islamic culture through daily religious activities. Every morning, students and teachers begin their day by reciting *Asmaul Husna* and the Qur'an, followed by congregational prayers during the day. MIG3 noted, *“This brings students closer to the Qur'an every day.”* The program also includes the recitation of Surah Yassin every Friday, which not only reinforces students’ religious values but also fosters a sense of togetherness within the madrasah. MIG7 highlighted, *“The program of reading Surah Yassin is a characteristic of our madrasah,”* emphasizing its positive impact on the religious atmosphere of the institution.

This series of religious activities has drawn significant attention from the surrounding community, distinguishing MIN 1 Grobogan as a unique alternative to public schools. Its strong emphasis on Islamic values has successfully appealed to parents seeking an education system that seamlessly integrates academic excellence with a solid foundation in religious principles.

#### 4.3. Budget transparency and increased cooperation with local communities

MIN 1 Grobogan has implemented a strategy of transparency as part of its effort to build trust with the community and parents. The principal emphasized the importance of openness in reporting both the madrasah's programs and the use of its funds. MIG4 noted, *"To maintain public trust, madrasah programs must be transparent, including infrastructure development."* This transparency is further reinforced through the involvement of the school committee, which plays a key role in monitoring and evaluating the performance of the madrasah. In addition, regular reports on academic achievements and outstanding programs are provided to parents. MIG1 added, *"Parents can monitor their children's development, especially in the tahfidz program, which is divided into seven halaqoh."* This enables parents to directly assess their children's progress while strengthening trust in the quality of education. MIG3 emphasized, *"We are given space to participate in the education process,"* further strengthening the relationship between the madrasah and the community through this openness.

In addition to transparency, MIN 1 Grobogan fosters trust through active cooperation with the surrounding community. Through its harmonious relationship with the local population, MIN 1 Grobogan has expanded its student base from one village to eight sub-districts. MIG2 remarked, *"Previously, students were only from one neighborhood association or a maximum of one village; now students come from eight sub-districts,"* reflecting the increased public trust. The madrasah's involvement in various social and religious activities further strengthens its presence within the community. MIG4 stated, *"The majority of MIN alumni continue to MTsN and favorite junior high schools in Grobogan,"* indicating that the madrasah is recognized for its high-quality education. This close cooperation underscores MIN 1 Grobogan's commitment to creating a positive impact within the community, as MIG1 emphasized, *"This good relationship has proven effective in maintaining public trust."*

In line with the above, observations on August 29, 2024, revealed that the atmosphere at MIN 1 Grobogan was lively and dynamic, reflecting the success of the madrasah in building trust through active collaboration with the community. In the schoolyard, children joyfully played traditional games, laughing, while teachers engaged in warm discussions with parents present to support the school's activities. Colorful banners promoting social and educational initiatives decorated the area, signaling the madrasah's participation in various community-centered projects. The presence of students from eight sub-districts demonstrated that MIN 1 Grobogan had expanded its reach, attracting interest from a broader community that once was limited to a single village. Religious activities, such as study sessions and social services, were frequently conducted in the surrounding area, further deepening the harmonious relationship between the madrasah and the local community. Alumni were seen actively continuing their studies at popular MTsN and junior high schools, reaffirming MIN 1 Grobogan's reputation as a quality educational institution. Through its ongoing activities involving parents and the community, the madrasah's presence among residents has become more prominent, showcasing its strong commitment to creating a positive impact and reinforcing the bonds of trust in the area. This environment fosters a warm, familial atmosphere, where all parties contribute to creating a supportive and enthusiastic learning space.

The implementation of MIN 1 Grobogan's transparency and collaboration strategy continues to enhance the institution's positive image as a responsible educational entity. The principal prioritizes openness in managing funds and actively involves external parties in evaluating ongoing programs. MIG3 noted, *"Transparency is important so that the community trusts the management of the madrasah."* The madrasah regularly holds meetings with parents to provide updates on program progress, such as the tahfidz program, which is divided into several halaqoh groups, a practice that is well-received by guardians. MIG5 added, *"This openness is beneficial because we, as parents, can see the quality of the program our children are participating in."* By maintaining a strong commitment to transparency, the madrasah has reinforced its position as an institution that prioritizes the quality and sustainability of education. As MIG7 concluded, *"The transparency of this madrasah makes us increasingly confident in entrusting our children's education here."*

#### 4.4. Daily habituation program, foreign language, and IT

MIN 1 Grobogan has developed a daily habituation program that has become a significant draw for the Grobogan community, focusing on religious activities such as reciting Asmaul Husna, dhuha prayer, and tahfidz. The tahfidz program is divided into seven halaqoh, with each group guided by asatidz hufadz. As MIG5 mentioned, *"The*

*students who take tahfidz are divided into seven halaqoh and are taught by asatidz hufadz.*” For students who have not yet joined the tahfidz program, they receive guidance on memorizing short surahs as preparation. MIG2 explained, *“The tasmi’ activity or tahfidz exam is a long-awaited moment, including preparation for the tahfidz graduation at the end of the year.”* This structured and consistent religious program is seen as instrumental in helping students develop strong character. MIG3 stated, *“This daily habituation is very helpful for students in developing disciplined and religious character.”* The positive impact of this program is evident in MIG1’s observation that, *“The religious atmosphere created makes this madrasah increasingly seen as the community’s top choice.”*

In addition to religious programs, MIN 1 Grobogan emphasizes the development of students' competencies in foreign languages and information technology to meet modern demands. Arabic and English are introduced from the first grade, supported by the extracurricular activity "English Arabic Speaking Club," which is designed to enhance students' speaking skills. The school has also established computer and language laboratories, providing essential facilities for digital learning. MIG4 noted, *“The computer and language laboratory facilities offer students access to technology from an early age.”* MIG5 added, *“Students’ ability to speak foreign languages also improves through the club activities that are regularly held.”* As MIG2 emphasized, the integration of technology *“increases students’ competitiveness and prepares the school to face global challenges.”* MIG3 further remarked, *“The role of technology has made the madrasah more popular and seen as a progressive institution.”*

On August 29, 2024, the atmosphere at MIN 1 Grobogan was observed to be lively and full of enthusiasm. Students were seen eagerly entering the classroom, carrying English and Arabic books, their faces bright with smiles. Inside the classroom, teachers energetically introduced new vocabulary in both languages, while students actively participated by answering questions and engaging in discussions. Outside the classroom, the extracurricular activity "English Arabic Speaking Club" was in full swing. Students gathered in small groups, practicing speaking and helping each other with pronunciation. The sound of laughter and conversation in both English and Arabic filled the air, creating an enjoyable and supportive language-learning environment. Meanwhile, the computer and language labs were bustling with students exploring technology. Modern computers, equipped with educational software, were in use, and several students worked collaboratively on projects, showcasing strong teamwork. Teachers attentively supervised, providing guidance when needed. The overall atmosphere reflected the madrasah’s commitment to preparing students to face global challenges with essential language and technology skills. MIN 1 Grobogan has succeeded in fostering a progressive learning environment where students gain not only academic knowledge but also the skills they need for the future.

MIN 1 Grobogan’s innovative programs have earned it a strong reputation as an educational institution that not only emphasizes religious values but also prioritizes the development of skills aligned with the demands of the digital era. MIG1 noted, *“This madrasah is indeed well-known in the community because of its comprehensive programs.”* Public trust in MIN 1 Grobogan continues to grow, as highlighted by MIG4, who stated, *“This madrasah offers a well-rounded education that combines religious teachings with modern skills.”* MIG7 further emphasized, *“The madrasah is the first choice for parents who want their children to grow with both religious integrity and competitive skills.”* According to MIG2, *“MIN 1 Grobogan’s reputation for adapting to the times makes it the top choice for education in this region.”* This growing public trust affirms that the madrasah’s innovative approach meets the needs and expectations of modern education while reinforcing its status as a leading institution in a competitive educational landscape.

#### *4.5. Strengthening the Quality of Teachers and Education Personnel*

MIN 1 Grobogan is deeply committed to enhancing the quality of its teaching staff in order to maintain public trust and improve educational standards. Through regular training, the school encourages teachers to adopt innovative and relevant teaching methods. *“Teachers are given training to continuously update their teaching methods in line with current developments,”* said MIG4, reflecting the school’s focus on educational advancement. The school also implements a task division based on teacher competency to ensure that students receive optimal guidance. MIG5 explained, *“Our tahfidz teachers are asatidz hufadz who are highly competent,”* illustrating the school’s emphasis on competency-based learning. As a result, MIN 1 Grobogan has successfully integrated



technology-based learning and prioritized teaching quality. “Strengthening teacher quality is key to maintaining high educational standards,” added MIG1, underscoring the importance of educator quality in preserving the school’s strong reputation within the community.

MIN 1 Grobogan also places significant emphasis on pedagogical development through ongoing efforts to enhance teacher skills. Routine training is conducted to equip teachers with the latest technological advancements and teaching methods. MIG3 stated, “This training really helps teachers to be more innovative in teaching,” emphasizing the school’s role in supporting the professional growth of educators. The division of tasks based on each teacher’s area of expertise is another key aspect of this strategy, as MIG7 explained, “Each teacher has responsibilities according to their expertise, ensuring that students can learn optimally.” This focus on improving teacher quality not only helps enhance the effectiveness of learning but also strengthens public trust in MIN 1 Grobogan. MIG2 noted, “Good teacher quality assures parents that their children are receiving a quality education.”

The atmosphere at MIN 1 Grobogan on August 29, 2024, reflected the school’s commitment to enhancing the quality of education. In the morning, teachers gathered in a well-equipped training room, surrounded by modern teaching tools that showcased the school’s embrace of technological advancements. The teachers’ faces were filled with enthusiasm as they engaged in discussions, shared experiences, and learned about the latest teaching methods. The training session fostered a warm and collaborative environment, with teachers actively participating in the Q&A session, further enhancing the spirit of cooperation. The clear division of tasks according to each teacher’s area of expertise ensured that everyone was focused on delivering quality content. In the classrooms, the sound of joyful children learning echoed throughout, illustrating the positive outcomes of these professional development efforts. The lively interaction between teachers and students not only improved the students’ learning experiences but also instilled a sense of confidence and pride in the teachers. Furthermore, parents who attended the event to witness the activities expressed their support for the school’s initiatives to elevate educational quality. Overall, the atmosphere at MIN 1 Grobogan on that day demonstrated a high level of dedication to creating a quality, progressive, and dynamic learning environment.

Through various capacity-building programs, MIN 1 Grobogan demonstrates a holistic approach to fostering an innovative and high-quality educational environment. The school’s commitment to equipping teachers with the skills to adapt to educational changes is evident in its ongoing training initiatives. As MIG4 expressed, “With this training, we are better prepared to face changes in the world of education.” The strategic division of tasks based on teacher specialization further enhances the school’s success. MIG5 highlighted, “Our tahfidz teachers are the best in their fields,” underscoring the school’s dedication to providing top-tier instruction. Additionally, MIN 1 Grobogan actively encourages the integration of technology into the teaching process, recognizing its role in improving learning efficiency. MIG3 emphasized, “Technological innovation in schools greatly helps student learning,” reflecting the school’s commitment to using modern tools to support education. This focus on both teacher development and technological advancement has helped MIN 1 Grobogan gain recognition as a trusted and quality educational institution within the community.

#### *4.6. Friendly and Professional Service*

MIN 1 Grobogan has earned a positive reputation due to its friendly and professional service, which has become a significant draw for the surrounding community. The school’s principal and staff are committed to establishing harmonious relationships with parents and students, ensuring that everyone is treated with respect and care. MIG1 emphasized, “Friendly service makes parents feel appreciated and comfortable.” This approach extends to effectively handling complaints and suggestions from parents, ensuring their concerns are addressed in a timely and thoughtful manner. MIG3 added, “The principal is always open to criticism, which makes us feel closer.” The school also conducts regular evaluations of its service system to ensure it meets community expectations. MIG5 noted, “We always listen to the input from parents as a form of commitment to improving the quality of education.” With this responsive and open approach, MIN 1 Grobogan has built strong relationships with the community, earning increasing public trust.

On August 31, 2024, the school was alive with the sound of intimate conversations between parents and staff, demonstrating the close relationship between the school and families. The principal, with a friendly smile, often approached parents, welcoming their opinions. These conversations reflected the school's openness to feedback, making parents feel valued and involved in their children's education. The waiting area in the madrasah office was filled with educational magazines and information, showcasing the staff's efforts to provide informative services. Organized bulletin boards offered clear and accessible information to parents, reinforcing the school's commitment to transparency. Throughout the area, staff members were alert and ready to assist with any questions, creating a comfortable and professional atmosphere. Overall, MIN 1 Grobogan is more than a place of learning; it is a community where individuals feel valued and actively involved in the educational process.

In addition to its services, MIN 1 Grobogan's management innovation plays a key role in shaping a positive image of the madrasah. The school's excellent programs—both academic and non-academic—along with its consistent religious practices, are particularly attractive. MIG2 shared, "Previously, students were only from one neighborhood association or village, now they are from eight sub-districts." This innovation not only increases enrollment but also ensures the quality of education remains high. MIG4 noted, "Our teachers always take training to continue updating teaching methods." These programs also promote student success in both academic and religious areas, reinforcing MIN 1 Grobogan's reputation as a trusted and high-quality madrasah.

Another factor contributing to the school's success is the commitment of the teaching staff to continually enhance their competencies. Teachers actively participate in training, workshops, and seminars to stay up-to-date with the latest teaching methods. MIG5 explained, "Improving the quality of teachers is our priority so that students obtain the best learning." The full support from management in providing resources and facilities has a positive impact on both teachers and students. MIG7 emphasized, "With complete facilities, the teaching and learning process becomes more effective." The strong collaboration between management, teachers, and the community is a key factor in the school's ongoing development and success.

MIN 1 Grobogan continues to innovate by offering various excellent programs across both academic and non-academic fields. Students participate in local and national competitions, which helps them develop their skills and boost their self-confidence. MIG3 mentioned, "We participate in various academic and non-academic competitions as an effort to improve student achievement." The structured tahfidz program is also a key advantage of the school. MIG5 explained, "The tahfidz program is divided into several levels to ensure that each student develops according to their abilities." Community support for this program is robust, with MIG2 adding, "With this program, our children are ready to continue to a higher level." Thanks to its success in both academic and non-academic areas, MIN 1 Grobogan continues to earn the community's trust as an institution that produces high-achieving and well-rounded generations.

#### *4.7. Challenges in implementing madrasah management transformation strategies and increasing public trust*

The transformation at MIN 1 Grobogan faced several significant challenges, especially in terms of adapting educators to the new system that requires additional skills. Some teachers still need training to utilize the technology optimally, especially in the use of computer labs. MIG1 said, "We still have difficulty operating some of the devices in the lab, so training is very necessary." MIG2 added that this challenge is not just about technology, but also about skills in teaching foreign languages, which are also part of this transformation. MIG3 stated, "Without further training, it is difficult for us to keep up with the developments needed." This opinion was reinforced by MIG4, who said that the success of the management transformation at MIN 1 Grobogan would depend greatly on the readiness of educators to implement changes comprehensively. Therefore, ongoing training is an important aspect that needs to be considered by the madrasah so that educators are ready to provide optimal education.

In addition, budget constraints also pose a challenge in developing adequate learning facilities at MIN 1 Grobogan. Although there is support from the Ministry of Religious Affairs, the need for more sophisticated equipment is still difficult to meet. MIG5 admitted, "The existing budget is not enough to buy the sophisticated devices we

need.” MIG7 added, “Some computers are old and require expensive maintenance.” According to MIG2, maintaining these facilities often burdens the limited budget, so further support is needed. MIG4 also emphasized that support from the government, community, and other stakeholders will greatly assist the sustainability of this transformation. This challenge shows the importance of collaboration from various parties to ensure that the transformation of MIN 1 Grobogan can continue and develop in order to improve the quality of education.

The management transformation at MIN 1 Grobogan has had a significant impact on both the madrasah itself and the Islamic education system in Indonesia in general. The success of MIN 1 Grobogan in attracting public interest through management innovation shows that madrasahs can be an alternative to high-quality education compared to public schools. According to MIG1, “MIN 1 Grobogan proves that with innovation, madrasahs can attract more students.” The consistent strengthening of Islamic values, accompanied by modern skills, makes MIN 1 Grobogan a model for other madrasahs. MIG2 stated, “This new approach has increased public trust in madrasahs.” Thus, this transformation serves as an inspiration for other Islamic educational institutions to adopt similar strategies to increase their competitiveness. This is also reinforced by MIG4, who emphasized, “Innovation in management is very important to improve the quality of education in madrasahs.” It can be said that MIN 1 Grobogan has created a new paradigm that proves that madrasahs have the potential to compete in the wider world of education.

From an educational management perspective, the transformation at MIN 1 Grobogan shows that adaptation to the needs of the times can be achieved without neglecting religious values. According to MIG3, “The combination of religious activities with 21st-century skills is the key to the success of madrasahs.” By combining religious lessons and skills such as foreign languages and technology, MIN 1 Grobogan has succeeded in creating an Islamic education model that is relevant to the demands of globalization. MIG5 added, “A holistic education creates graduates who are ready to face global challenges.” This implication suggests that madrasah development requires changes not only in teaching methods but also innovations in governance. MIG7 commented, “Modern facilities and relevant methods are essential to meet the expectations of today’s society.” Thus, the management transformation at MIN 1 Grobogan has not only brought about changes in teaching, but also strengthened the position of madrasahs as educational institutions that are ready to compete in the modern era.

Finally, the transformation at MIN 1 Grobogan has positive implications for the development of Islamic education policies at the regional and national levels. The success of this madrasah in utilizing government support and effective marketing strategies indicates that collaboration between educational institutions and stakeholders is essential to support the sustainability and growth of madrasahs. The government is expected to pay more attention to madrasahs that strive to innovate in order to provide more adequate facilities and training. This transformation model can be adopted as a reference in designing development programs for madrasahs throughout Indonesia, so that Islamic education can continue to compete and adapt to the times.

The transformation at MIN 1 Grobogan has faced several significant challenges, particularly in adapting educators to the new system, which requires additional skills. One of the primary difficulties lies in training teachers to effectively use technology, especially in computer labs. MIG1 noted, “We still have difficulty operating some of the devices in the lab, so training is very necessary.” Beyond technology, there is also a challenge in developing skills related to teaching foreign languages, which are part of this transformation. MIG3 stated, “Without further training, it is difficult for us to keep up with the developments needed.” This sentiment was echoed by MIG4, who emphasized that the success of the management transformation at MIN 1 Grobogan would largely depend on the readiness of educators to implement changes comprehensively. Therefore, ongoing training is an essential aspect that the madrasah must prioritize to ensure educators are well-equipped to provide optimal education.

In addition to challenges with teacher readiness, budget constraints also pose a significant hurdle in developing adequate learning facilities. Although MIN 1 Grobogan receives support from the Ministry of Religious Affairs, the school still struggles to meet the need for more sophisticated equipment. MIG5 admitted, “The existing budget is not enough to buy the sophisticated devices we need.” MIG7 added, “Some computers are old and require expensive maintenance.” According to MIG2, maintaining these facilities often strains the limited budget, making it clear that further support is necessary. MIG4 emphasized that collaboration from the government, the

community, and other stakeholders would greatly assist the sustainability of this transformation. This challenge underscores the importance of cooperation among various parties to ensure that MIN 1 Grobogan can continue its transformation and enhance the quality of education.

The management transformation at MIN 1 Grobogan has had a profound impact, not only on the madrasah but also on the broader Islamic education system in Indonesia. The school's success in attracting public interest through management innovation demonstrates that madrasahs can offer high-quality education on par with public schools. MIG1 remarked, "MIN 1 Grobogan proves that with innovation, madrasahs can attract more students." By consistently strengthening Islamic values while incorporating modern skills, MIN 1 Grobogan has become a model for other madrasahs. MIG2 added, "This new approach has increased public trust in madrasahs." The transformation serves as an inspiration for other Islamic educational institutions to adopt similar strategies to enhance their competitiveness. MIG4 reinforced this idea, stating, "Innovation in management is very important to improve the quality of education in madrasahs." MIN 1 Grobogan has thus established a new paradigm, showing that madrasahs have the potential to compete in the broader educational landscape.

From an educational management perspective, the transformation at MIN 1 Grobogan illustrates how adaptation to contemporary needs can be achieved without compromising religious values. MIG3 observed, "The combination of religious activities with 21st-century skills is the key to the success of madrasahs." By blending religious teachings with skills like foreign languages and technology, MIN 1 Grobogan has created an Islamic education model that aligns with global demands. MIG5 added, "A holistic education creates graduates who are ready to face global challenges." This approach suggests that the development of madrasahs requires not only changes in teaching methods but also innovations in governance. MIG7 commented, "Modern facilities and relevant methods are essential to meet the expectations of today's society." The transformation at MIN 1 Grobogan has not only advanced teaching methods but also bolstered the position of madrasahs as educational institutions ready to thrive in the modern world.

Finally, the transformation at MIN 1 Grobogan carries positive implications for the development of Islamic education policies at both regional and national levels. The school's success in utilizing government support and effective marketing strategies demonstrates that collaboration between educational institutions and stakeholders is crucial for sustaining and growing madrasahs. It is expected that the government will continue to support madrasahs that are committed to innovation by providing more adequate facilities and training. This transformation model can serve as a reference for designing development programs for madrasahs across Indonesia, ensuring that Islamic education can continue to adapt and compete in the contemporary educational environment.

## 5. Discussion

This research reveals that MIN 1 Grobogan has successfully implemented a strategy for transforming madrasah management and increasing public trust through various strategic efforts. First, the madrasah focuses on building an innovative and quality image by promoting excellent programs in academic and non-academic fields, attracting public interest in entrusting their children's education in addition to mastering soft skills through extracurricular activities. Second, transparent fund management creates public trust, supported by accountability in the use of operational funds. Third, friendly and professional service is the advantage of the madrasah, with staff providing the best service for students and guardians. Improving the quality of teachers through ongoing training is also prioritized, including the use of information technology in the teaching and learning process. The madrasah integrates religious values and social skills through daily habituation programs, so that students not only excel academically but also have strong characters. In addition, cooperation with the local community is strengthened by involving parents and community leaders in various activities. Although this strategy has succeeded in increasing public trust in MIN 1 Grobogan as a transparent and quality educational institution, this transformation faces challenges, including the adaptation of educators to the new system that requires additional skills and budget constraints for the development of adequate learning facilities.

Henry Mintzberg and Peter Drucker's views in the context of research on management transformation strategies at MIN 1 Grobogan reflect the importance of effective leadership and innovative managerial approaches in increasing public trust. Mintzberg (1989) emphasized that a flexible and team-oriented organizational structure can encourage collaboration and creativity, which is in line with the madrasah's efforts to develop an innovative image through excellent programs in academic and non-academic fields. On the other hand, Drucker (2006) emphasized that the goal of educational management must focus on the results and value generated for the community, which is seen in the madrasah's efforts to manage funds transparently and accountably, so as to increase public trust. Friendly and professional service, which is the advantage of the madrasah, also reflects Drucker's principle of the importance of customer orientation, namely students and guardians. In this context, improving teacher quality through continuous training and integration of religious values and social skills is a strategic step that supports the madrasah's vision to produce students with strong character (Drucker, 2006). However, the challenges in this transformation, such as the adaptation of educational staff to the new system and budget constraints, indicate the need for a managerial approach that is adaptive and responsive to change, in line with Mintzberg's thinking (Mintzberg & Laasch, 2020) regarding the importance of managers as directors who are able to deal with the dynamics of the educational environment.

The novelty of this research finding lies in the integration of contemporary management theories put forward by Henry Mintzberg and Peter Drucker with pre-existing Islamic principles. While Islamic theories emphasize values such as justice, transparency, and social responsibility, this research shows how both views can complement each other in the context of management transformation strategies at MIN 1 Grobogan. Mintzberg's approach that emphasizes organizational flexibility and team collaboration, as well as Drucker's emphasis on outcomes that provide value to society, can be adapted to strengthen Islamic principles that emphasize the importance of morality in education. This research also highlights how madrasahs implement continuous training for teachers, which not only focuses on professional development but also integrates religious values and social skills, creating students with character (Adelia & Mitra, 2021). In addition, challenges in implementing transformation strategies, such as teacher adaptation to new systems and budget constraints, emphasize the need for adaptive management. These findings suggest that modern management theories with Islamic values can produce a more holistic approach to education, which is able to answer contemporary challenges and increase public trust in educational institutions (Alawiyah, 2014). Thus, this research not only enriches the discourse on educational management, but also provides new insights into the application of Islamic values in a broader context.

This research reflects the importance of the role of Islamic identity and modern innovation in the management of Islamic education. At the beginning of the transformation, MIN 1 Grobogan attempted to improve deficiencies in several fundamental aspects, such as the schedule structure, uniforms, and religious habits. Over time, the results showed that these efforts not only improved student discipline but also strengthened the image of the madrasah as an educational institution that is consistent with Islamic values. In the final stage of the transformation, the addition of foreign language facilities and information technology became important elements that provided added value to the madrasah. This shows that the combination of managerial innovation and religious values is an attraction that is able to distinguish MIN Kuwaron from the surrounding public schools.

The interpretation of the results of this research emphasizes the importance of flexibility in educational management, where adaptation to modern demands does not have to ignore the religious values that are the foundation of madrasahs. Strengthening religious activities such as reading *Asmaul Husna*, *tadarus*, *tahlil*, and *surah yasin*, as well as the application of information technology at MIN 1 Grobogan, shows that Islamic education can remain relevant to the times without losing its identity. These results provide empirical evidence that the management of Islamic education that is responsive to the needs of the times and consistent with Islamic values can increase public appeal. Thus, the model applied at MIN 1 Grobogan has an important meaning in showing that madrasahs have great potential to compete with public schools if managed adaptively.

Comparatively, the research conducted by (Azra, 2001; Munadi, Alwiyah, et al., 2021; Munadi, Annur, et al., 2021; Munadi & Khuriyah, 2023; Nata, 2003) shows that adaptive management transformation can increase the competitiveness of Islamic education amidst the dominance of general education and intracurricular and co-curricular education. Nata highlights the importance of innovation in curriculum and management to face global

challenges, while Azra emphasizes the role of strong religious identity as the main attraction in Islamic education. Munadi et al. emphasize the development of extracurricular activities to strengthen soft skills in addition to hard skills. This research strengthens this view by providing a real example from MIN 1 Grobogan, where the combination of managerial innovation and daily religious activities forms a madrasah that is relevant and in demand by the community. The novelty of this research is the emphasis on the implementation of intensive marketing strategies as a way to strengthen the image of the madrasah, which is rarely discussed in other Islamic education research.

As a future action plan, MIN 1 Grobogan can continue to develop its managerial innovation by paying attention to three main areas: (1) developing teacher competencies, improving technological facilities, and maintaining religious identity. Continuous training for teachers in foreign language skills and technology will improve the quality of education and the sustainability of the programs that have been pioneered. (2) Improving technological facilities, such as updating computer equipment, will support digital learning programs that are increasingly relevant in this era. On the other hand, to maintain Islamic appeal, (3) MIN 1 Grobogan can enrich daily religious activities with Al-Qur'an memorization programs or Islamic etiquette training, so that students not only have modern skills but also strong Islamic characters. This action plan will ensure that the management transformation at MIN 1 Grobogan can continue and be an inspiration for other madrasahs in Indonesia.

This research reveals that MIN 1 Grobogan has successfully implemented a strategy for transforming madrasah management and increasing public trust through various strategic efforts. First, the madrasah focuses on building an innovative and high-quality image by promoting excellent programs in both academic and non-academic fields. This approach attracts public interest in entrusting their children's education to the institution while also helping students master soft skills through extracurricular activities. Second, transparent fund management fosters public trust, supported by accountability in the use of operational funds. Third, the madrasah's friendly and professional service is one of its key advantages, with staff providing excellent service to students and parents. Improving the quality of teachers through ongoing training is also a priority, including enhancing their use of information technology in the teaching and learning process. The madrasah integrates religious values and social skills through daily habituation programs, ensuring that students not only excel academically but also develop strong character. In addition, cooperation with the local community is strengthened by involving parents and community leaders in various activities. Although this strategy has been successful in increasing public trust in MIN 1 Grobogan as a transparent and high-quality educational institution, the transformation faces challenges. These include the adaptation of educators to the new system, which requires additional skills, as well as budget constraints in developing adequate learning facilities.

Henry Mintzberg and Peter Drucker's views, in the context of research on management transformation strategies at MIN 1 Grobogan, highlight the importance of effective leadership and innovative managerial approaches in building public trust. Mintzberg (1989) emphasized that a flexible, team-oriented organizational structure fosters collaboration and creativity, which aligns with the madrasah's efforts to develop an innovative image through excellent academic and non-academic programs. On the other hand, Drucker (2006) argued that the goal of educational management should focus on the results and value generated for the community, which is reflected in the madrasah's transparent and accountable fund management to enhance public trust. The madrasah's friendly and professional service, which is one of its key advantages, also reflects Drucker's principle of customer orientation, which prioritizes students and guardians. In this context, improving teacher quality through continuous training and the integration of religious values and social skills are strategic steps that support the madrasah's vision of producing students with strong character. However, the challenges in this transformation, such as the adaptation of educational staff to the new system and budget constraints, highlight the need for a managerial approach that is adaptive and responsive to change. This aligns with Mintzberg's thinking (Mintzberg & Laasch, 2020) about the role of managers as directors who must navigate the dynamics of the educational environment.

The novelty of this research lies in the integration of contemporary management theories proposed by Henry Mintzberg and Peter Drucker with traditional Islamic principles. While Islamic theories emphasize values such as justice, transparency, and social responsibility, this research demonstrates how both perspectives can complement each other in the context of management transformation strategies at MIN 1 Grobogan. Mintzberg's approach,

which emphasizes organizational flexibility and team collaboration, along with Drucker's focus on outcomes that provide value to society, can be adapted to strengthen Islamic principles that underscore the importance of morality in education. This research also highlights how madrasahs implement continuous training for teachers, which not only focuses on professional development but also integrates religious values and social skills, ultimately shaping students with strong character (Adelia & Mitra, 2021). Moreover, challenges in implementing transformation strategies—such as teacher adaptation to new systems and budget constraints—underscore the need for adaptive management. These findings suggest that combining modern management theories with Islamic values offers a more holistic approach to education, one that can address contemporary challenges and enhance public trust in educational institutions (Alawiyah, 2014). Thus, this research not only enriches the discourse on educational management, but also provides new insights into the application of Islamic values in a broader context.

This research underscores the importance of combining Islamic identity and modern innovation in the management of Islamic education. At the beginning of the transformation, MIN 1 Grobogan focused on addressing deficiencies in several key areas, such as scheduling, uniforms, and religious practices. Over time, these efforts not only improved student discipline but also strengthened the madrasah's image as an institution aligned with Islamic values. In the final phase of the transformation, the introduction of foreign language facilities and information technology became crucial elements that added significant value to the madrasah. This demonstrates that the integration of managerial innovation with religious values is a distinguishing factor that sets MIN 1 Grobogan apart from surrounding public schools.

The interpretation of the results emphasizes the importance of flexibility in educational management. Adaptation to modern demands does not have to come at the expense of the religious values that form the foundation of madrasahs. Strengthening religious activities such as reading *Asmaul Husna*, *tadarus*, *tahlil*, and *Surah Yasin*, alongside the integration of information technology at MIN 1 Grobogan, shows that Islamic education can remain relevant without losing its identity. These findings provide empirical evidence that Islamic education management, responsive to contemporary needs while remaining consistent with Islamic values, can significantly increase public appeal. Thus, the model applied at MIN 1 Grobogan serves as an important example, demonstrating that madrasahs have great potential to compete with public schools when managed adaptively.

In comparison, research conducted by (Azra, 2001; Munadi, Alwiyah, et al., 2021; Munadi, Annur, et al., 2021; Munadi & Khuriyah, 2023; Nata, 2003) shows that adaptive management transformation can enhance the competitiveness of Islamic education in the face of the dominance of general education and both intracurricular and co-curricular activities. Nata emphasizes the role of innovation in curriculum and management to meet global challenges, while Azra highlights the significance of maintaining a strong religious identity as a key attraction in Islamic education. Munadi et al. stress the importance of developing extracurricular activities to strengthen soft skills alongside hard skills. This research reinforces these perspectives by offering a practical example from MIN 1 Grobogan, where the combination of managerial innovation and daily religious activities creates a madrasah that remains relevant and in demand by the community. The novelty of this research lies in its focus on the implementation of intensive marketing strategies as a means to strengthen the madrasah's image—an approach rarely discussed in other studies on Islamic education.

For future action, MIN 1 Grobogan can continue to develop its managerial innovations by focusing on three main areas: (1) developing teacher competencies, improving technological facilities, and maintaining religious identity. Continuous training in foreign language skills and technology will enhance the quality of education and the sustainability of the programs already introduced. (2) Improving technological facilities, such as updating computer equipment, will support the digital learning programs that are increasingly relevant today. Meanwhile, to maintain its Islamic appeal, (3) MIN 1 Grobogan can enrich its daily religious activities with *Al-Qur'an* memorization programs or Islamic etiquette training, ensuring that students not only acquire modern skills but also cultivate strong Islamic character. This action plan will ensure that the management transformation at MIN 1 Grobogan continues to progress and serves as an inspiration for other madrasahs across Indonesia.

## 6. Conclusion

This research offers a new perspective on how management transformation in madrasahs can enhance competitiveness and public trust. One of its significant contributions is the emphasis on combining religious identity with modern innovation in Islamic education. By integrating Islamic learning programs with foreign language skills and technology, MIN 1 Grobogan provides a practical example of how madrasahs can be adaptive educational institutions without compromising religious values. This research also contributes to the literature on Islamic education management by highlighting intensive marketing strategies as a key element in shaping a positive image of madrasahs, an aspect rarely addressed in previous studies. Another important finding is the role of daily religious programs in strengthening the institution's identity. These programs not only enhance students' connection to Islamic values but also distinguish the madrasah from public schools. In this context, MIN 1 Grobogan has successfully combined modern innovation with religious practices, demonstrating that consistent Islamic elements in students' daily lives can be a unique attraction for the community. Therefore, this research provides practical recommendations for other madrasahs seeking to improve their educational quality, while also contributing to the development of a more holistic theory of Islamic educational management that considers the interplay between religious and modern elements in creating competitive educational institutions.

However, the main limitation of this research is its approach, which focuses on a single school through a case study design. While this provides in-depth insights into the specific context and conditions of MIN 1 Grobogan, it limits the generalizability of the findings to other madrasahs, which may have different characteristics and challenges. Moreover, focusing on one location may overlook external factors influencing management transformation and public trust, such as national education policies and the social dynamics of the surrounding community. For future research, it is recommended to include multiple madrasahs from various regions to offer a more comprehensive understanding of the broader trends in madrasah management transformation. Integrating quantitative methods would help collect broader, more representative data, enabling a deeper analysis of the relationship between madrasah management and public trust. Additionally, employing a mixed-methods approach—combining qualitative and quantitative research—could reveal other influencing variables and provide stronger recommendations for madrasah management development policies in Indonesia.

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# The Fields of Pragmatic Discourse Analysis

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## Abstract

The article is devoted to the fields of pragmatic discourse analysis. Pragmatic approach to the discourse takes into account all the aspects of communication including both linguistic and extra-linguistic units, and provides efficient tools for affecting an addressee. The article has been written on the basis of synchronic descriptive method in the study of the English language. It is noted in this article that discourse analysis (discourse analysis) is a set of methods and techniques for interpreting various types of texts or statements as products of speech activity. The pragmatic approach to discourse involves analyzing it from the standpoint of speech acts, which allows us to consider pragmatics as one of the areas of discursive research. It is also stated that some definitions of pragmatics are almost identical to some definitions of discourse analysis, which may lead us to think that both fields of study are the same.

**Keywords:** Linguistics, Language, Discourse Analysis, Pragmatics, Text, The Methods, Science

## 1. Introduction

The concept of "discourse" has gained wide circulation and recognition in the educational, university, academic, journalistic and socio-political environments in general, as well as in journalistic writings. Discourse is one of the most common and polysemantic concepts of the humanities, the subject of which is the functioning of language, communication and their connections with social development. In the most general sense, discourse is a written or speech verbal product of a communicative action or event occurring between a speaker, listener (observer, etc.) in a certain temporal, spatial, social, cultural and other context. The concept of "discourse" expresses the socially conditioned organization of the speech system, as well as certain principles according to which reality is classified and represented (presented) in certain periods of time. This special meaning of the word "discourse" was first introduced by E. Benveniste, contrasting discourse (speech tied to the speaker) and récit (speech not tied to the speaker).

Discourse is a holistic communicative event of reality, which is united by its own content and meaning, its semiotic organization and structure, and is significant for the participants involved in it. In the socio-philosophical sense, discourse is a holistic complex, episode, situation, structure or direction of communicative activity, expressed in a certain semantic significance and logic of the semiotic system, allowing them to be understood, initiated and designed. Discourse is characterized by cognitive, axiological, educational and pragmatic functions: it is able to communicate knowledge, influence the emotional state, encourage action.

### *1.1. Objective of the study*

The purpose of the article is to study the fields of pragmatic discourse, its being such a concept that its teaching subject includes language activity, communication and their relationship with social development.

### *1.2. Methodology*

Research methods include direct contextual analysis, cognitive-linguistic, or linguistic description. With the help of these methods, the essence of pragmatic discourse analysis is revealed.

## **2. Presentation and discussion**

The interdisciplinary direction that studies discourse, as well as the corresponding section of linguistics, are called the same thing – discourse analysis or discourse studies. As a scientific direction, discourse analysis was formed only in recent decades (1970s). This happened against the background of the opposite trend that dominated linguistics for most of the 20th century – the struggle to “purify” the science of language from the study of speech. L. de Saussure (2007) believed that the true object of linguistics is the language system (as opposed to speech). Attitudes in the science of language have begun to change and the opinion is gaining strength, according to which no linguistic phenomena can be adequately understood and described outside of their use, without taking into account their discursive aspects. Therefore, discourse analysis becomes one of the central sections of linguistics.

Discourse analysis (discourse analysis) is a set of methods and techniques for interpreting various types of texts or statements as products of speech activity carried out in specific socio-political circumstances and cultural-historical conditions. Discourse analysis as an independent scientific discipline or, at least, an autonomous branch of scientific knowledge, originated in the 1960s in France as a result of the combination of linguistics, Marxism and psychoanalysis within the framework of general trends in the development of structuralist ideology.

Currently, discourse analysis is perceived as an interdisciplinary approach that took shape at the intersection of sociolinguistics and linguacultural studies, but has absorbed the techniques and methods of various sciences of the humanities: rhetoric, linguistics, philosophy, psychology, political science, sociology, etc. Therefore, it is entirely acceptable to single out the corresponding approaches as the main research strategies carried out within the framework of AD, for example, psychological (cognitive, cultural-historical, etc.), linguistic (grammatical, textual, stylistic, etc.), semiotic (semantic, syntactic, pragmatic), philosophical (structuralist, post-structuralist, deconstructivist), logical (argumentative and analytical), informational-communicative, rhetorical, etc.

### *2.1. A Brief history of discourse analysis*

Among the predecessors of discourse analysis as a specific scientific discipline, at least two research traditions should be mentioned. First, there is a tradition of ethnolinguistic studies, focused on recording and analyzing oral texts of different languages; among the most famous representatives of this tradition is the American ethnolinguistic school founded by Franz Boas. Second, there is a Czech linguistic school founded by V. Mathesius, which revived interest in such concepts as topic and communicative organization of the text.

Discourse analysis is the study of the language used by members of a certain language community. In the course of such analysis, both the form of language and its function, both spoken language and written texts are considered, and linguistic features of understanding various texts and types of oral speech are identified. Analysis of written texts may involve the study of topic development and the connections (cohesion) between sentences, while analysis of spoken language may focus on these aspects as well as on practices of step-by-step interaction, opening and closing sequences of social interactions, or narrative structure.

### *2.2. Methods of discourse analysis*

The methods used by different schools of discourse analysis vary widely. In particular, the analysis of everyday dialogue and the works of W. Chafe (1987) rely on natural discursive material. In the analysis of everyday dialogue, generalizations are obtained by identifying recurring, dominant patterns, while W. Chafe (1987) gives priority to the method of introspection.

The empirical material consists not of natural but of experimental data, and the processing of the material includes the use of statistical tests standard for cognitive psychology. A special range of methodological issues is associated with the transcription of oral discourse. Any attempt at objective written recording (transcription) of oral language forces us to solve many complex interpretative and technical problems unknown to linguists who study exclusively written texts. Discourse specialists have long understood that when recording oral speech, not only words are important, but also many other circumstances - pauses, prosody, laughter, overlapping lines, incompleteness of lines, etc. Without these details, a meaningful analysis of oral discourse is simply impossible. At the same time, the development of consistent transcription methods and the choice of a reasonable level of detail are extremely difficult problems. Therefore, at present, the principles of transcription of oral discourse are the subject of almost an entire scientific direction (works of the group of E.A. Zemskaya, J. Dubois and his co-authors, J. Gampers, etc.). The next method of analysis of discourse is the method of conceptual analysis. The objects of the CA are concepts (meanings) conveyed by individual words, phrases, individual texts and even entire works. Each concept has a number of conceptual characteristics. For example, the concept "Telephone" has such characteristics as "communication, cost, types of telephones, call center, cellular communication, prestige", etc. These conceptual characteristics are revealed through the meanings of language units expressing (representing) this concept through dictionary definitions, speech contexts. Identification of conceptual characteristics through the analysis of language (language works) is called concept analysis. Let us analyze the content of two concepts represented in modern English and Russian languages, having studied dictionary definitions and contexts of use of the corresponding language units. We will limit ourselves to the analysis of dictionary definitions presented in only a few dictionaries, and also analyze the most well-known contexts of use of the corresponding words. The concept of "Culture" is usually associated in people's minds with a certain level of development of a person and society as a whole. In Russian, this concept is represented by the words "culture, culturality" and some others derived from them. A synonymous connection of these words with the words: "civilization, civility, intelligence" and their derivatives is also noted.

Having analyzed the interpretations of these words in English explanatory dictionaries, we can identify the following substantive features of the concept "Culture" in the English-language conceptual sphere: 1. physical and spiritual development; 2. socially acquired humanitarian knowledge and models of behavior, including socially established norms of assessments and judgments; 3. this knowledge as an area, subject, form of content (music, literature, other arts); 4. the state of spiritual development of a society or group as their general characteristics; 5. spiritual values developed by a given community, race, etc. (concepts, traditions, art); 6. intellectual and spiritual activity and the results (works) of this activity; 7. education and enlightenment; 8. special training and instruction; 9. improvement (of manners, taste ...); 10. something artificially created for any purpose.

The analysis of the semantics and word usage of Russian words allows us to identify the national specificity of this concept and the priority of certain conceptual features in Russian society. For example, in C. Ozhegov's (1997) dictionary the word "culture" is interpreted as "a set of industrial, social, and spiritual achievements of people" and includes various spheres of activity, and not just intellectual and spiritual activity, as in English.

By the way, in English there is also an additional component - "artificially created." Thus, there are certain differences in the content of the same concept in different languages. Propositional analysis is considered one of the main theoretical methods of analyzing linguistic data (D-SA). This method leads to a better understanding of the knowledge underlying this or that discourse analysis. A position is understood in general terms as an assertion or statement about the world (claim). The term "proposition" comes from the Latin proposition, which in logic means a judgment, and in linguistics - a sentence (from the English proposition), that is, some integral unit. A proposition is a genuine statement about the world, or an objective semantic constant. According to J. Searle (1986), a prop-I is what is asserted or stated and passes from person to person in acts of communication [9]. Often, a proposition can be accompanied by a subject variable expressing the speaker's attitude to the action, the speaker's

assessment of what is being communicated, the speaker's emotive attitude to what is being communicated. For example, in the statements:

*I assert, I doubt that riots have begun in the city.*

*I believe, I know, I think that riots might not begin in the city*

*I deny, I am afraid, etc.*

The predicates "to assert, to suppose, to be afraid," etc. express the speaker's attitude. They can be called a variable subject component. The stable core is associated with this variable component – "unrest will begin in the city." This is a stable semantic core (constant), denoting a possible or actual state of affairs. The term "proposition" is applied to this semantic core. That is the proposition of this sentence. In linguistic terms, propositions can be expressed in various ways, namely, in sentences, utterances, speech acts. Any sentence can be translated into a prop-u, and any text has a propositional basis. In a number of studies, propositions are considered as units of internal language (internal content), and a sentence is a unit of external language (surface structure). At the external level, there are not only lingual means of expressing propositions.

Another important methodological innovation of recent years is the increasingly active use of text corpora in discourse analysis. There are a number of computer corpora in the world, containing millions of word usages, which can be used to test hypotheses. Most of these corpora are related to the English language, but there are corpora for some other languages. Currently, discourse analysis has become quite institutionalized as a special (albeit interdisciplinary) scientific direction. Specialized journals devoted to discourse analysis are published - "Text" and "Discourse Processes". The most famous centers of discourse studies are located in the USA – these are the University of California in Santa Barbara (where W. Chafe, S. Thompson, M. Mithun, J. Dubois, P. Clancy, S. Cumming and others work), the University of California in Los Angeles (where E. Schegloff, one of the founders of the analysis of everyday dialogue, works), the University of Oregon in Eugene (where T. Givon, R. Tomlin, D. Payne, T. Payne work), Georgetown University (a long-standing center of sociolinguistic research, among whose employees is D. Shiffrin). In Europe, it is necessary to mention the University of Amsterdam, where the classic of discourse analysis T. van Dijk (2012) works. The term D became fully in demand in linguistics around the 70-80s of the 20th century along with the development of the science of "linguistic pragmatics." Pragmatics studies the relationship between a linguistic sign and a native speaker. Linguistic pragmatics is a discipline that studies language not "in itself and for itself," but as a means used by humans in their activities. Natural language is commonly said to be the most important means of human communication. However, with the exception of so-called factual communication, i.e., communication for the sake of communication, we use language to solve other problems: to report an important event, to encourage the addressee to take certain actions or stop them, to express our feelings or to evaluate someone's actions. Finally, in many cases, the use of language is, if not the only, then the most basic component of an action that fundamentally changes social reality or an individual's fate (cf. the abolition of serfdom, the conclusion of a truce, the passing of a guilty verdict or the awarding of a state prize). Therefore, it is entirely justified to study language as an instrument of action. It is from this perspective that linguistic phenomena are considered within the framework of linguistic pragmatics. In other words, pragmatics studies the relationship between a linguistic sign and a native speaker. This science is interested in the mechanism of speech. It solves the following questions: 1. Who speaks, to whom, what and why; 2. How a person constructs an utterance and how it is related to the communication situation.

Thus, the development of ling. pragmatics led to the development of discursive analysis and discourse. The actual linguistic uses of the term "discourse" are very diverse in themselves, but in general, behind them one can see attempts to clarify and develop the traditional concepts of speech, text and dialogue. Discourse - a coherent text in combination with extralinguistic factors: pragmatic, socio-cultural, psychological, etc. Linguistic pragmatics incl. a set of issues related to the speaking subject, the addressee, their interaction in communication, the communication situation. Discourse - speech "immersed in life," Discourse - text taken in the event aspect. Discourse is a process of communication through the interaction of communication participants.

The pragmatic approach to discourse involves analyzing it from the standpoint of speech acts, which allows us to consider pragmatics as one of the areas of discursive research. Thus, T.A. van Dijk (2012) emphasizes that "discourse, in the broad sense of the word, is a complex unity of linguistic form, meaning and action that could be

best characterized by the concept of a communicative event or communicative act" while "the speaker and listener, their personal and social characteristics, and other aspects of the social situation undoubtedly relate to this event. The process of transforming discourse into speech acts is called pragmatic interpretation of utterances. In this case, a communicative act, or illocution, is the production of a speech act and is the minimal unit of linguistic communication. An illocutionary act has illocutionary force, which is determined by the purpose of the utterance and the conditions of its implementation. Each utterance, immersed in a certain pragmatic context, can be an intention, desire, prediction, request, order, congratulation, etc., depending on its illocutionary meaning. Similarly, one can classify media discourse texts that represent assertions, accusations, recommendations, predictions, etc.

However, illocution is only one level of speech act analysis. The other two levels include locution and perlocution. A locutionary act has a locutionary meaning that characterizes the point of view of the linguistic elements used in it. A perlocutionary act has a perlocutionary effect, which is the result of the impact of the speech act on the addressee. It is the perlocutionary level of speech act analysis that seems to be the most significant in the study of political media discourse texts, which is explained by their main function - to influence the audience. Moreover, according to researchers, the constitutive property of political media discourse texts is manipulateness, which is the pragmatic effect of political media texts.

Some definitions of pragmatics are almost identical to some definitions of discourse analysis, which may lead us to think that both fields of study are the same. Such definitions of pragmatics can be classified under a broader approach called macropragmatics, and they differ from definitions given by a narrower approach known as micropragmatics. My view of pragmatics is more in line with the latter approach, and therefore I do not consider it the same as discourse analysis. However, pragmatics is an invaluable resource for discourse analysis, with which it shares some common ground but differs in method and scope. Indeed, both disciplines share the idea that it is undesirable to deal with abstract idealizations of how language is constructed, or prescriptive rules of how language should work, and therefore with how, when, why, etc. it is desirable to deal with e. speakers/writers actually use language for different purposes. However, as mentioned in 3, while discourse analysis is mainly an umbrella term for a range of methods and approaches to the analysis of written, spoken or signed language (e.g. conversation analysis, critical discourse analysis, etc.), pragmatics is not necessarily so. includes these approaches in its scope. A discourse analysis researcher undertaking any of these approaches will necessarily use pragmatic concepts and knowledge, but a pragmatic analysis researcher will not necessarily be part of any discourse analytic school of thought.

The consideration of discourse from the point of view of pragmatics (understood semiotically as part of Morris's triad of semantics - syntactics - pragmatics should begin with an analysis of the scheme: "langue is a system, a certain abstract mental construction, discourse are combinations by means of which the speaker uses the language code (i.e., seme), parole is a mechanism that allows these combinations to be realized (i.e. semiotic act)." As we can see, the first and third parts of the triad belong almost entirely to the field of linguistics. The second part can be of interest to literary scholars in many ways. Firstly, discourse here implies a speaker (in our case, rather a writer), this is important for literary theory, where the author always remains the center of attention of the researcher, even when proclaiming his (the author's) death. And secondly, here the role of discourse is indicated as a kind of code used by the speaker to implement the general language code.

Let us cite another quote:

In French linguistics, the dominant position goes back to Benveniste (1971): discourse is not a simple sum of phrases; at its birth, a break with the grammatical structure of the language occurs. Discourse is an empirical object that a linguist encounters when he discovers traces of the subject of the act of utterance, formal elements that indicate the appropriation of language by the speaker." Here we see, in essence, confirmation of the fact that discourse can be understood as an individual supra-linguistic code (i.e., a set of formal elements) that subordinates (to the point of breaking) the grammatical structure of language. Understanding such a code requires certain efforts on the part of the recipient, aimed at "connecting" to the discourse code and, thus, including oneself in the "utterance" situation (see above, point 2).

Now it is worth mentioning A. Greimas and J. Courtet (1983), who in their explanatory dictionary identified discourse with the semiotic process, arguing that "the whole set of semiotic facts (relations, units, operations, etc.), located on the syntagmatic axis of language" can be considered as related to the theory of discourse. [In this same work, they compared the concept of a "secondary modeling system" among Soviet semioticians with the concept of discourse developed on French soil (which should be interpreted as a process that presupposes a system). This latter definition turns out to be extremely important, since it introduces syntagmatic and paradigmatic dimensions into the concept of discourse as a code, and, consequently, the concept of systemicity.

Thus, discourse can be considered as a process (verbalized speech and thinking activity) and as a result (fixed text), as well as in these two aspects simultaneously. Since discourse is the result of interaction with society, when studying discourse, its role in shaping the addressee's opinion, as well as control over the addressee's opinion, is revealed. On the one hand, discourse research is aimed at studying the pragmatic situation to which it is addressed – thereby revealing the communicative adequacy of discourse and its implications. On the other hand, it is aimed at revealing the strategies for understanding it in certain conditions by the addressee and the ways to achieve the addressee's goals.

### 3. Conclusion

The fields of pragmatic discourse research are conducted in the mode of processing linguistic knowledge, while the researcher refers not only to his own linguistic knowledge, but also to knowledge about the real world, since in the process of understanding and generating speech, all databases stored in the human cognitive apparatus are activated. Thus, discourse is not simply a verbal manifestation of the subject, but also an indication that this subject think, knows, and communicates about it. Discourse can be understood as an external time space, or a network in which the events of the physical sign are located. Discourse is a systematic device for processing linguistic thought, as well as empirical experience, in which the system of categories of past and future, existing and possible worlds, with the already experienced and ideal confluence of circumstances, the rules of the game, and other attitudes are laid down. However, there is no final or timeless discourse, just as there can be no infinite discourse, because the formation of discourse does not form an infinitely repeating set of utterances, but is limited by the conditions of existence. Discourse does not have a historical or rhetorical community; rather, it is constituted by a certain limited number of utterances that arose in and were embodied at a certain point in time. Consequently, discourse is the result of the mental and linguistic processing of empirical experience embodied in a certain spatio-temporal environment through propositions.

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# Study of Soft Skills that Students Need for Self-Development at Suvarnabhumi Institute of Technology

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## Abstract

This research objective was 1. Study the Soft Skills that students need for self-development at Suvarnabhumi Institute of Technology.; 2. Compare opinions of Soft Skills that students need for self-development at Suvarnabhumi Institute of Technology by faculty and year. The population studied was students from 4 faculties, totaling 393 people. The sample size determination by Krejci and Morgan, the sample size was 220 people. and random sampling. The instrument used was a questionnaire. The statistics used were frequency, percentage, Mean, standard deviation, one-way analysis of variance (One-way ANOVA) and content analysis. The research results found that: 1. Soft skills that students need for self-development were overall at a high level ( $\bar{x} = 4.41$ ,  $SD = 0.49$ ), ranked as follows: teamwork skills ( $\bar{x} = 4.47$ ,  $SD = 0.56$ ), life skills ( $\bar{x} = 4.46$ ,  $SD = 0.56$ ) and communication skills ( $\bar{x} = 4.43$ ,  $SD = 0.53$ ); 2. Comparison of students' opinions on Soft Skills that they need for overall self-development, classified by faculty, found that overall and in each aspect, students from the 4 faculties had different needs in 8 aspects at a statistical significance level of .05. And classified by year, found that overall and in each aspect, students from the 4-year levels had different needs in 6 aspects at a statistical significance level of .05.

**Keywords:** Soft Skills, Students, Self-Development

## 1. Introduction

In the midst of rapid global technological advancements, often referred to as the digital era, increasing emphasis is being placed on technology systems and innovations. This transition towards a digital society has significantly influenced the adaptation of the Thai educational system at all levels. There is a need to shift paradigms and adapt teaching and learning methods to align with the changing social context. Additionally, supplementary activities are needed to enhance students' learning, aiming to equip them with comprehensive knowledge and skills, including core academic and professional skills (Hard Skills) as well as social skills (Soft Skills) that align with the demands of the 21st century. In line with the government's policy to develop Thailand into a stable, prosperous, and sustainable country following the Education 4.0 framework, the focus of educational management has shifted towards preparing students for the digital age. This entails empowering them to apply professional knowledge

(Hard Skills) in their careers, fostering creativity, and developing innovations that meet the demands of professional and business sectors. Social skills (Soft Skills) play a supportive role in enhancing the effectiveness and efficiency of core skills (Hard Skills). Thus, educational administrators, particularly at the higher education level, must prioritize the development of essential skills for students, encompassing both core skills (Hard Skills) and social skills (Soft Skills). This should be integrated into the curriculum design process, teaching and learning management, content in various courses, extracurricular activities, student training and development, and the creation of an appropriate learning environment to provide a well-rounded educational experience. This approach aims to prepare students to become high-quality human resources capable of contributing to the country's development goals.

According to the National Education Act B.E. 2542 (1999), Section 22 emphasizes that education management must be based on the principle that every learner has the potential to learn and develop themselves. Learners are considered the most important aspect of the educational process. Therefore, the learning environment, instructional media, and assessment must be tailored to reflect real-world conditions. Effective implementation requires the collaboration of teachers, personnel, and stakeholders to enhance the quality of learners. Students, as learners, need to be equipped with additional skills and abilities beyond core academic or professional skills (Hard Skills), as these alone may not be sufficient for the digital society. There is a need to promote social skills (Soft Skills), which are equally important and serve as complementary skills to enhance the effectiveness of core skills (Hard Skills). Key Soft Skills necessary for the workplace include communication skills, teamwork, conflict management, and decision-making skills. Educational studies have shown that individuals with well-developed social skills (Soft Skills) tend to advance in their careers faster than those possessing only core skills (Hard Skills). This is because individuals with strong social skills (Soft Skills) can easily adapt and collaborate with others, as well as maintain a balanced development of both Hard Skills and Soft Skills.

Given the significance of education management as highlighted in the National Education Act B.E. 2542 (amended in 2002) and the rapidly changing societal context, educational administrators and stakeholders play a critical role in ensuring the systematic and continuous development of both core skills (Hard Skills) and social skills (Soft Skills) throughout students' educational journey. In particular, the development of Soft Skills is crucial for students to learn and apply these skills effectively in their professional lives, adapting to the digital era where social contexts and other factors are constantly evolving. The need to develop social skills (Soft Skills) for students aligns with the National Education Plan B.E. 2560-2579 (2017-2036) by the Office of the Education Council, Ministry of Education, which addresses the impact of the digital revolution on the nation's educational development. It emphasizes the necessity of 21st-century skills, including the 3Rs+8Cs framework, as outlined in the 20-year National Strategy. The National Education Plan B.E. 2560-2579 (2017-2036) focuses on educational management for national security, aiming to produce and develop human resources, research, and innovation to enhance the country's competitiveness. In light of the significance of national education policies and the 20-year National Strategy, the preparation of students for digital-era competition is a priority, especially in higher education institutions. Their critical role is to produce graduates with academic knowledge, professional competence, and essential social skills (Soft Skills) that will enable them to collaborate effectively, respond to societal changes, and develop a positive attitude and values. This is necessary for managing and controlling tasks that are increasingly intertwined with robots, technology systems, and Big Data in organizational operations.

The researcher recognizes the importance of preparing students with Soft Skills, particularly within higher education institutions. Strategic planning is required in curriculum design, teaching processes, and extracurricular activities that will lead to the systematic development and enhancement of essential Soft Skills. This research aims to gather data on students' needs for Soft Skills development, which will provide a structured approach to developing these skills effectively, ensuring students are well-prepared for the future workforce with the necessary knowledge, skills, and Soft Skills that meet the demands of employers. The research findings will offer valuable insights to support the systematic development of essential Soft Skills in students, enhancing the efficiency and effectiveness of student development initiatives.

## 2. Research Objectives

1. To investigate the Soft Skills that students at Suvarnabhumi Institute of Technology desire for their self-development.
2. To compare students' opinions on the desired Soft Skills for self-development at Suvarnabhumi Institute of Technology, categorized by faculty and year of study.

## 3. Research Methodology

This study employs a quantitative research methodology, with the following details:

### 3.1. Content Scope

The research focuses on theories and concepts from scholars who have studied and presented Soft Skills related to student development. The study examines the following 8 Soft Skills:

1. **Communication Skills**
2. **Analytical and Creative Thinking Skills**
3. **Problem-Solving and Decision-Making Skills**
4. **Teamwork Skills**
5. **Leadership Skills**
6. **Learning and Information Management Skills**
7. **Flexibility and Adaptability Skills**
8. **Life Skills**

### 3.2. Population Scope

The target population consists of students from Suvarnabhumi Institute of Technology across 4 faculties, totaling 393 students (as of January 15, 2024). The sample size was determined using Krejcie and Morgan's sample size formula (as cited in Laddawan Petchroj and colleagues, 2007), resulting in a sample of 220 students. A simple random sampling technique was employed.

### 3.3. Research Instruments

The research instrument was a questionnaire designed to assess the Soft Skills that students desire for self-development, divided into three sections:

- **Section 1:** General information about the respondents (check-list type), including faculty, year of study, and age.
- **Section 2:** Opinions on the desired Soft Skills for self-development, covering 8 skills:
  1. Communication Skills
  2. Analytical and Creative Thinking Skills
  3. Problem-Solving and Decision-Making Skills
  4. Teamwork Skills
  5. Leadership Skills
  6. Learning and Information Management Skills
  7. Flexibility and Adaptability Skills
  8. Life Skills

The assessment was based on a 5-point Likert scale as follows:

- **5:** Very high level of need for self-development
- **4:** High level of need for self-development
- **3:** Moderate level of need for self-development
- **2:** Low level of need for self-development
- **1:** Very low level of need for self-development
- **Section 3:** Open-ended questions for additional suggestions.

### 3.4. Instrument Development and Quality Assurance

The researcher conducted the development and quality assessment of the research instrument following these steps:

#### 3.4.1. Review of Concepts, Theories, and Related Literature

The researcher reviewed relevant theories, literature, and prior research to define the scope and conceptual framework of the study. This informed the design of the research instrument, ensuring it aligns with the research objectives and comprehensively covers the targeted Soft Skills.

#### 3.4.2. Questionnaire Development

The researcher created research questions based on the conceptual framework, focusing on the 8 Soft Skills desired by students for self-development. The questions were designed to align with the study's objectives.

#### 3.4.3. Content Validity Assessment

The developed questionnaire was submitted to a panel of three experts with relevant qualifications and experience related to the research topic. The experts evaluated the content validity of the questionnaire. The Index of Item-Objective Congruence (IOC) was calculated to assess the alignment of each question with the research objectives. Items with an IOC score between 0.6 and 1.0 were selected for inclusion in the final instrument.

#### 3.4.4. Pilot Testing for Reliability

The revised questionnaire, incorporating feedback from the experts, was then tested with a pilot group of 30 respondents. The reliability of the questionnaire was assessed using Cronbach's Alpha coefficient (Cronbach, 1990). Items were considered reliable if the Cronbach's Alpha coefficient was 0.70 or higher. The overall reliability of the complete questionnaire was found to be 0.97, indicating a high level of internal consistency.

#### 3.4.5. Data Collection with Final Questionnaire

The finalized version of the questionnaire was administered to the sample group for data collection. This systematic process ensured the validity and reliability of the research instrument, enabling accurate and consistent measurement of the desired Soft Skills.

### 3.5. Data Analysis Methods and Statistical Techniques

The data analysis was conducted as follows:

#### Section 1: General Information of Respondents

- Analyzed using frequency distribution and percentage to summarize demographic data.

#### Section 2: Opinions on Soft Skills Desired by Students for Self-Development Across 8 Skills

##### 1. Descriptive Statistics:

- Mean (M) and Standard Deviation (SD) were used to assess the overall level of demand for each Soft Skill.

##### 2. Inferential Statistics:

- One-Way Analysis of Variance (One-way ANOVA) was used to compare the differences in students' opinions across faculties and academic years.
- If significant differences were found, Fisher's Least Significant Difference (LSD) test was used for post hoc comparisons.

#### Section 3: Open-Ended Suggestions

- Analyzed using content analysis to extract themes and insights from the qualitative data.

## 4. Research Findings

### 4.1. General Information

The majority of respondents were students from the Faculty of Education and Liberal Arts (85 students, 38.64%), followed by the Faculty of Engineering, Science, and Technology (60 students, 27.27%), and the Faculty of Public Administration (31 students, 14.09%). Most respondents were first-year students (125 students, 56.82%). In terms of age, the largest group was over 23 years old (130 students, 59.10%).

### 4.2. Levels of Demand for Soft Skills Among Students

#### 4.2.1 Overall Demand for Soft Skills

The overall level of demand for Soft Skills was high, with a mean score of **4.41** and SD of **0.49**. The top three skills in demand were:

- Teamwork Skills (M = 4.47, SD = 0.56)
- Life Skills (M = 4.46, SD = 0.56)
- Communication Skills (M = 4.43, SD = 0.53)

#### 4.2.2 Communication Skills

The overall demand for Communication Skills was high (M = 4.43, SD = 0.53). The highest-rated item was:

- Building positive relationships between sender and receiver (M = 4.49, SD = 0.62)
- The lowest-rated item was:
- Public speaking (M = 4.33, SD = 0.75)

#### 4.2.3 Analytical and Creative Thinking Skills

The overall demand was high (M = 4.38, SD = 0.53). The highest-rated item was:

- Innovative perspectives in work and life (M = 4.45, SD = 0.62)
- The lowest-rated item was:
- Complex reasoning in analyzing factors systematically (M = 4.25, SD = 0.71)

#### 4.2.4 Problem-Solving and Decision-Making Skills

The overall demand was high (M = 4.39, SD = 0.53). The highest-rated item was:

- Adaptability to change (M = 4.48, SD = 0.64)
- The lowest-rated item was:
- Decision-making under constraints (M = 4.32, SD = 0.64)

#### 4.2.5 Teamwork Skills

The overall demand was high (M = 4.47, SD = 0.56). The highest-rated item was:

- Acceptance of individual differences (M = 4.50, SD = 0.67)
- The lowest-rated item was:
- Being a good leader and follower (M = 4.44, SD = 0.66)

#### 4.2.6 Leadership Skills

The overall demand was high (M = 4.34, SD = 0.63). The highest-rated item was:

- Influencing and motivating followers (M = 4.39, SD = 0.70)
- The lowest-rated item was:

- Ability to manage people (M = 4.31, SD = 0.75)

#### 4.2.7 Learning and Information Management Skills

The overall demand was high (M = 4.36, SD = 0.60). The highest-rated item was:

- Effective data management for relevant tasks (M = 4.39, SD = 0.67)
- The lowest-rated item was:
- Analyzing data with in-depth knowledge (M = 4.31, SD = 0.73)

#### 4.2.8 Flexibility and Adaptability Skills

The overall demand was high (M = 4.43, SD = 0.58). The highest-rated item was:

- Positive attitude towards change (M = 4.48, SD = 0.64)
- The lowest-rated item was:
- Prioritizing tasks effectively (M = 4.40, SD = 0.70)

#### 4.2.9 Life Skills

The overall demand was high (M = 4.46, SD = 0.56). The highest-rated item was:

- Living a happy life according to social status (M = 4.52, SD = 0.62)
- The lowest-rated item was:
- Work-life balance (M = 4.41, SD = 0.63)

### 4.3. Comparison of Students' Opinions on Soft Skills by Faculty and Year of Study

#### 4.3.1 Comparison by Faculty

- The demand for all Soft Skills differed significantly across faculties, including Communication Skills, Analytical and Creative Thinking Skills, Problem-Solving and Decision-Making Skills, Teamwork Skills, Leadership Skills, Learning and Information Management Skills, Flexibility and Adaptability Skills, and Life Skills, with a significance level of **0.05**.

#### 4.3.2 Comparison by Year of Study

- The demand for six Soft Skills differed significantly by year of study: Communication Skills, Analytical and Creative Thinking Skills, Problem-Solving and Decision-Making Skills, Leadership Skills, Learning and Information Management Skills, and Life Skills, with a significance level of **0.05**.

## 5. Conclusion and Discussion

Based on the findings of this research on Soft Skills desired by students for self-development at Suvarnabhumi Institute of Technology, key points for discussion are highlighted according to the research objectives as follows:

### 5.1. Overall Level of Demand for Soft Skills

The results indicate that the overall demand for Soft Skills across all 8 areas was high. The top three Soft Skills with the highest mean scores were:

1. Teamwork Skills
2. Life Skills
3. Communication Skills

This suggests that students prioritize the need to develop teamwork skills, which are essential for their future careers. A closer examination of specific items within this skill area revealed that students highly valued acceptance of individual differences, followed by working effectively in a team to achieve common goals, and fostering good interpersonal relationships. These findings align with the framework of 21st-century social skills, which emphasize self-responsibility, flexibility, empathy, leadership, **and collaboration**, as outlined by Thissana Khammanee (2014) and further supported by Phinyou Wongthong and Wanchai Noiwan (2021), who highlighted the importance of collaboration and respect in teamwork.

### *5.2. Demand for Life Skills*

The demand for Life Skills ranked second. Students expressed the highest need for developing the ability to live happily according to their social status, followed by self-acceptance and ongoing skill improvement. This reflects the increasing societal pressures and technological advancements, which require students to learn adaptive life skills. The findings are consistent with the work of Siriorn Noppakij (2018), who emphasized the significance of life skills as the ability to adapt and make appropriate decisions in daily life challenges. The Basic Education Standards Office (2010) also defined life skills as the capacity to live harmoniously in society, effectively manage problems, and maintain physical and mental well-being.

### *5.3. Demand for Communication Skills*

Communication Skills ranked third in overall demand. The most sought-after sub-skill was the ability to build positive relationships between the sender and receiver, followed by being a good speaker and listener, and effective listening skills. This highlights the critical role of communication in student development, as effective communication fosters mutual understanding and motivation. This finding aligns with the research of Phinyou Wongthong and Wanchai Noiwan (2021), who noted that communication skills extend beyond language proficiency to include effective listening, understanding, and the use of diverse media and technology. Effective communication is essential for expressing ideas, resolving conflicts, and building social interactions, which are crucial in the 21st-century workplace.

### *5.4. Comparison of Students' Opinions on Soft Skills by Faculty and Year of Study*

The analysis showed that students' opinions on the demand for Soft Skills varied significantly across different faculties and academic years.

- Comparison by Faculty: Students from the Faculty of Engineering, Science, and Technology exhibited lower demand for Soft Skills compared to students from the Faculties of Business Administration, Public Administration, and Education. This may be attributed to the curriculum focus in engineering and science programs, which emphasizes analytical thinking, problem-solving, and information management skills. This aligns with the study by Nittaya Chantakoon (2018), which found that students' perceptions of skill needs differ based on the characteristics of their academic programs.
- Comparison by Year of Study: First-year students generally exhibited lower demand for Soft Skills compared to second- and third-year students, particularly in six areas: communication, analytical thinking, problem-solving, leadership, information management, and life skills. This may be due to the focus of first-year students on academic adjustment and adapting to university life, resulting in different priorities for skill development. The findings align with the research by Nittaya Chantakoon (2018), who reported that students in earlier years tend to focus more on core academic knowledge, while students in later years recognize the importance of developing additional Soft Skills for career readiness.

## **6. Recommendations**

### *6.1. Strategic Planning for Student Development*

Educational institutions and stakeholders should develop clear, structured plans for student development, tailored to the needs of students in different academic years and faculties. Although the overall demand for all 8 Soft Skills

was high, there were distinct differences based on the year of study and faculty. Therefore, development plans should be customized to address these differences to enhance the effectiveness of Soft Skills development in line with 21st-century skill requirements.

### 6.2. Capacity Building for Faculty and Staff

Institutions should support the professional development of faculty members and related personnel to enhance their capacity to facilitate Soft Skills development. This includes equipping educators with the necessary knowledge, skills, and positive attitudes towards student development. Faculty involvement is critical in implementing effective learning experiences, whether through curriculum-related courses, supplementary activities, or extracurricular programs. By fostering a collaborative environment for teaching and learning, institutions can ensure that the development of Soft Skills aligns with the needs of students and enhances overall educational outcomes. In conclusion, the findings of this study provide valuable insights for educational institutions aiming to enhance student readiness for the workforce. The systematic development of all 8 Soft Skills in accordance with the demands of the 21st century will help institutions achieve their student development goals effectively and concretely.

### 6.3. Recommendations for Future Research

1. Future studies should explore trends in enhancing 21st-century learning skills among graduate-level students. This could provide insights into the specific skills required for advanced academic and professional success, focusing on the unique needs of postgraduate learners.
2. Future research should investigate strategies for organizing supplementary activities that contribute to the development of student skills in alignment with employer demands. This would help in designing extracurricular programs that effectively bridge the gap between academic training and industry expectations, ensuring students are well-prepared for the workforce.

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# Investigating The Lexical Concept of “War” & “Conflict” Concerning Israel vs Palestine in BBC 2023

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## Abstract

The article analyzed the lexical concept of war and conflict as a noun in the news coverage of Israel vs Palestine on BBC Channel 2023. The study employed a qualitative methods, utilizing a corpus-based approach. The researchers acquired data from 25 news articles regarding Israel vs Palestine on BBC Channel 2023. The goal of the study was to identify instances of “war” and “conflict” as nouns by examining the differences in lexical concepts associated with each term. The lexical concept is constructed based on the contextual elements that influence it. Moreover, it was found that the frequency of the words "war" and "conflict" as nouns in BBC Channel 2023 varied greatly. The study demonstrated the cognitive linguistic relationship between “war” and “conflict”, revealing the interconnection due to the ongoing a backdrop of the battle that continues to the present day. The two lexical concepts derived from both nouns are event and action.

**Keywords:** Lexical Concept, Cognitive Linguistic, War, Conflict, Corpus-Based Approach

## 1. Introduction

The Israel-Palestine conflict has persisted since 1917, when the Balfour Declaration was issued. The Balfour Declaration, in essence, is a campaign intended to advocate for the creation of a Jewish nation in Palestine, a region that holds historical significance as the Land of Israel. Israel has engaged in protracted military offensives against Gaza in 2008, 2012, 2014, 2021, 2023, and 2024, stemming from a long-standing conflict spanning centuries. The protracted struggle is mostly attributed to three factors: (1) The advent of the Zionist movement, (2) Discontentment with the Balfour Declaration, and (3) Discontentment with the proposal to partition Palestine. (BBC, 2023).

The Israeli assault has garnered significant media coverage, especially from the online platform of the BBC (British Broadcasting Corporation). Typically, the internet media content of the BBC (British Broadcasting Corporation) originates from the United Kingdom, indicating its endorsement of Israel. England endorses the concept of a sovereign Palestine that can coexist alongside the state of Israel. The global community is closely monitoring the ongoing Israeli military operations in Gaza, Palestine, which persist to this day in 2024. Researchers

are interested in examining the lexical concept of war and conflict as nouns in the news coverage of Israel vs Palestine on the BBC channel in 2023.

This study employs cognitive linguistics, drawing on the theoretical framework proposed by (Croft & Cruse, 2004). It posits three hypotheses pertaining to cognitive linguistics: (1) Language is not independent of an individual's cognitive processes, (2) Grammar is acquired through conceptual mechanisms, and (3) Language knowledge is a product of language usage. Cognitive linguistics emphasizes the examination of lexical notions. According to Evans and Green (2018) define the lexical notion as the meaning conveyed by a word or lexical form, using standard terminology. "War" and "conflict" can be organized in several configuration at the conceptual level. Merriam-Webster defines the term "war" as a state of openly declared armed confrontation between states or nations. The noun "conflict" refers to a competing or opposed action between incompatible entities, such as divergent ideas, interests, or individuals.

A lexical concept as a conventional semantic unit that possesses a distinct form and represents a specific linguistic unit, such as a word (lemma) (Evans & Green, 2018). Evans also stated a lexical concept is a semantic element that is combined with a phonological vehicle in a symbolic unit (Evans, 2009). Moreover, the lexical concept of the noun "time" is categorized into five distinct categories: duration, moment, event, measurement system, and instance/occurrence (Evans, 2005). This category will be utilized in the analysis of data pertaining to the nouns "war" and "conflict."

In this study, the researchers employ a corpus tools called Sketch Engine to classify the existing data. Consequently, several prior research references assist researchers in effectively processing data and interpreting its implications. Typically, conducting a thorough analysis of an individual word inside a corpus necessitates extensive examination and a substantial amount of corpus data to observe significant outcomes. Previous research conducted by Lukin and Maruggo, "War in Law: A Corpus Linguistic Study of the Lexical Item War in the Laws of War" has demonstrated the utility of the term "war" within the framework of the law of war, particularly in its linguistic application. The research provides significant insights into the portrayal, definition, and use of "war" in various legal frameworks and laws that regulate armed conflict. Prior research has demonstrated that the terms "war" and "violence" possess distinct connotations and interpretations within specific contexts. These two words also reflect different ideologies. (Lukin & Marrugo, 2023).

The subsequent research by Citraresmana et al.(2022) examined the lexical concept of Covid-19 through semantic representation within a corpus from 20 distinct English countries. The significance of Citraresmana et al. (2022) study to the researchers' investigation pertains to the identification of lexical concepts through Lexical Concept and Cognitive Models (LCCM) theory, supplemented by semantic representations utilizing open-class vehicle and closed-class vehicle analysis.

Moreover, the previous research, titled "Lexical Means of Verbalization of the English Concept "War" (Khairulina, 2024) demonstrates that the societal perspective on war is consistently influenced and reflected by contemporary media, such as digital platforms, television, and films. Literature and media contribute to a nuanced comprehension of the impacts of war, both historically and in the present day. The previous study broadly examined the lexical term "war," whereas the current research offers a detailed analysis of the lexical concepts of the nouns "war" and "conflict," utilizing cognitive linguistic theory, based on news coverage of the Israel-Palestine situation from the BBC news channel in 2023. Additionally, the researchers explores how the social conditions in Israel-Palestine are influenced by the writing style of the BBC news channel from England.

### *1.1. Cognitive Linguistics*

Cognitive linguistics is a linguistic field that specifically examines the influence of language on human cognitive processes and how humans perceive and understand the environment. Humans are creatures with souls that organically shape their experiences, which is manifested in their language. Humans are also not merely biological organisms; they also possess cultural and social identities, which are manifested through language.

## 1.2. Thematic Roles

In this paper, researchers use thematic roles to analyze data to help find lexical concepts. This thematic roles play a role in analyzing semantic and syntactic structures that determine the relationship between entities. The researchers examined how to the representation of sentences in the BBC news channel specifically about the news of Israel vs Palestine in 2023 is dissected using; agent, patient, theme, experiencer, beneficiary, instrument, location, goal, source and stimulus as in the theory (Saeed, 2016).

Certain authors; Gulstad et al., Ravin & Jackendoff propose that agent constitutes a specific subtype of the boarder thematic role known as actor, wherein actor denotes the participant that executes, influences, initiates, or governs the scenario indicated the predicate (Gulstad et al., 1986). Every agent is an actor, but not vice versa. In some cases, an agent is often the subject of the sentence, but not always. Thematic roles are frequently associated with grammatical functions, however they are not synonymous (Ravin & Jackendoff, 1992)

## 1.3. LCCM (Lexical Concept and Cognitive Models)

The LCCM theory examines the intricacy of semantic units and lexical concepts in language structures, which have a crucial impact on language comprehension (Evans, 2010). However, to gain a more profound comprehension, this theory also considers the underlying cognition, namely the cognitive processes that take place beyond conscious awareness, such as automatic processing and implicit learning. Thus, the entire and holistic processing of language in the human mind may be observed. The LCCM theory helps researchers to determine the lexical concept in understanding the context. However, the concept of individual words cannot be interpreted without the intertwining of another word that is connected.

As written in the previous research (Citraesmana et al., 2022), there is a structure of symbolic units that can help the researchers to examine the lexical concept using vehicle. Evans examines the configuration of symbolic units according to Croft and Cruse (2004) aforementioned concept.

a. Vehicle: "France". Lexical concept: [FRANCE].

b. Vehicle: "NP kick FINITE the bucket." Lexical concept: [AN ANIMATE ENTITIES DIES]

c. Vehicle: "NP FINITE VERB NP NP." Lexical concept: [THING X CAUSES THING Y TO RECEIVE THING Z]. (Evans, 2009)

Evans introduced the Lexical Concept Cognitive Model (LCCM theory) as a symbolic unit. This LCCM serves as the representation type utilized to populate the linguistic system. Evans asserts that a symbolic unit is bipolar configuration of phonological content conveyed by a vehicle. Consequently, the lexical concept constitutes the semantic structure, whereas the vehicle in phonetically manifest (Evans, 2009).

The lexical concept comprises paired closed-class items and paired open-class items. The paired closed-class vehicles encode linguistic content and serve as access points to conceptual knowledge. As a result, the cognitive model presented by Evans is deemed the suitable theory for data analysis.

On the other hand, the term "time" can be perceived as a linear progression, a circular cycle, or a more intricate entity, contingent upon the context and its use. Evans classifies the lexical concept of the term "time" into five separate groups: duration, moment, event, measurement system, and instance/occurrence (Evans, 2005).

Lexical concept of duration refers to the length of time that something lasts or continues. Two variations of the concept of duration correspond to two different subjective experiences. The first phenomenon is referred to as extended duration and pertains to the perception that time is passing at a slower pace than normal. For example: "In the wake of the 1948-49 war, Gaza was occupied by Egypt for 19 years". Egypt's involvement in Gaza spans a specified timeframe of 19 years.

Lexical concept of moment refers to temporal perception which is the capacity to evaluate time concerning distinct intervals. For instance: "Israel losing global support over Gaza bombing." Israel has diminished its global

reputation due to its prolonged and brutal assaults on Palestine. In this scenario, time is understood not as an interval with a measurable duration, but rather as a distinct point.

Lexical concept of event demonstrates an instance or occurrence of some nature. For example: "Israel will continue the war against Hamas, with or without international support." The lexical concept of an event can be seen as a temporal experience.

Lexical concept of measurement system shows a fundamental cognitive category that is conceptualized and articulated through language in diverse manners. For example: "The word 'Pollywood' consistently peaked at either 9,500 or 13,000 mentions in a single month on X". The numbers 9,500 or 13,000 represent the precise nominal value that may constitute one of components of the measurement system.

Lexical concept of instance is based on the idea that temporal events may be counted, which means that different events can be seen as instances or examples of the 'same' event. For instance: "However, as previous Israeli wars show, calls for a ceasefire will soon become too loud to be ignored." The term 'previous' indicates a prior Israeli conflict, and the future tense 'will' implies a consequential event in the future.

## 2. Method

The study included a qualitative research method. All data were acquired using corpus tool by measuring the frequency and word occurrence. This aligns with the principles of Corpus Linguistics, which involves the qualitative analysis patterns and frequency of language usage. According to McEnery and Wilson, Corpus Linguistics also more often analyzes the methodology than analyzes the language aspects which need explanation and description (McEnery & Wilson, 2001). The researchers used Sketch Engine, to conduct a comprehensive search for all nouns of "war" and "conflict" in 25 articles on the BBC channel specifically addressing the news of Israel vs Palestine in 2023. Subsequently, the researchers scrutinized the significance that arose from examining the collocation of the two terms. One strategy employed in this study aligns with Creswell's theory use of phenomenology, which aims to elucidate the collective interpretation of individuals regarding their diverse life experiences pertaining to concepts or phenomena (Creswell, 2003). The objective is to condense individual encounters with events into depictions of universal essences or fundamental elements. This method is employed based on the cognitive process of people in forming conceptions, which is influenced by the description of the Israel-Palestine conflict as portrayed on the BBC 2023 channel. Cognitive linguistics research uses corpus methodologies to investigate the interpretation of human language, thinking, and perception. Corpus analysis helps in identifying cognitive patterns by examining the linguistic structure and semantic significance of a word.

Qualitative research seeks to comprehend the significance of events and human interactions within specific contexts. Furthermore, the researchers examined the linguistic components of language in connection to other linguistic components, such as in the distributional technique (Zaim, 2018). Finally, the researchers observed the development of lexical concepts and documented the observed patterns based on the cognitive structure of language and the semantic content of words.

## 3. Results

According to the conducted study, in 2023, there were a total of 37,011 tokens extracted from 25 news articles on the BBC Channel discussing the topic of Israel vs Palestine. In addition, this corpus contained a total of 32,022 word types. Among these tokens and word types, the frequency of "war" as a noun appeared 267 times ( $F=267$ ), while the noun "conflict" appeared 75 times ( $F=75$ ). It shows a notable disparity in the usage of the words "war" and "conflict." Afterward, the researchers examine the most prominent collocations in both noun categories, yielding a total of 10 collocations to delve deeper into the interplay between each word.

Table 1: 10 top collocations of “war” as a noun in Sketch Engine

Word	Grammatical relation	Count	Word	Grammatical relation	Count
1 <b>Israel-Gaza</b>	modifiers of "war"	56	6 <b>continue</b>	verbs with "war" as object	10
2 <b>Gaza</b> noun	modifiers of "war"	35	7 <b>draw</b>	... to "war"	9
3 <b>follow</b>	verbs with "war" as subject	13	8 <b>remain</b>	verbs with "war" as object	9
4 <b>more</b> adjective	... on "war"	13	9 <b>different</b>	adjective predicates of "war"	8
5 <b>Israel</b> noun	modifiers of "war"	24	10 <b>Hezbollah</b>	"war" with ...	9

Table 2: 10 top collocations of “conflict” as a noun in Sketch Engine

Word ↓	Grammatical relation	Count	Word	Grammatical relation	Count
1 <b>explain</b>	verbs with "conflict" as subject	12	6 <b>Israel-Palestinian</b>	modifiers of "conflict"	3
2 <b>history</b>	... of "conflict"	12	7 <b>century</b>	... of "conflict"	2
3 <b>something</b>	"conflict" into ...	9	8 <b>other</b>	modifiers of "conflict"	2
4 <b>turn</b>	verbs with "conflict" as object	9	9 <b>worldwide</b>	modifiers of "conflict"	1
5 <b>current</b>	modifiers of "conflict"	3	10 <b>Israeli-Palestinian</b>	modifiers of "conflict"	1

Based on the table provided, it can be inferred that there are collocations associated with the term “war”, such as; *Israel-Gaza*, *Gaza*, *follow*, *more*, *Israel*, *continue*, *draw*, *remain*, *different*, and *Hezbollah*. In the context of the noun conflict, there are precise collocations, particularly; *explain*, *history*, *something*, *turn*, *current*, *Israel-Palestinian*, *century*, *other*, *worldwide*, and *Israeli-Palestinian*. The researchers determine the lexical concept by examining the concordance of the nouns “war” and “conflict” when they are paired with highly collocation words, and observing how these combinations generate a certain concept. Alongside examining the predominant collocations of the nouns war and conflict, researchers analyzed the near-synonyms for these terms utilizing news data regarding Israel vs Palestine from the BBC news channel in 2023. The methods for identifying near-synonyms by assessing word significance through Merriam-Webster online dictionary. The term “war” contains near-synonyms including; *conflict*, *fighting*, *battle*, *violence*, and *hostility*. Meanwhile, the term conflict has near-synonyms with *war* and *schism*. Upon examining near-synonyms in Merriam-Webster (online dictionary), it may be concluded that “war” and “conflict” are synonyms, however their meanings may alter based on contextual usage.

According to Evans, lexical concept is the meaning that is represented by a lexical form or word. Examples of temporal expressions from English include the words *time*, *past*, *present*, and *future*, among others. The lexical concepts that underlie words of this kind can be organized in several ways at the conceptual level (Evans, 2005). Following that, the researchers examined the lexical concept employing sentences in the corpus tools (Sketch Engine) which were selected based on the top collocation. The sentence feature is a robust tool that enables users to search for particular words or phrases inside a corpus and examine the surrounding context. Since no lexical concept can be generated from a single word, the sentence can assemble itself into a lexical concept structure. Data that underwent additional analysis are summarized below:

Table 3: Sentences that construct the lexical concept of ‘war’ using collocation.

No	Noun	Collocation	Collocation Frequency	Sentence
1	War	Israel-Gaza	56	<b>Israel-Gaza war</b> : Half of Gaza's population is starving, as fighting there continues.
2		Gaza	35	London and Jerusalem Reuters Israeli troops prepared to enter Gaza on Wednesday, when intense fighting continued across the territory Israel's foreign minister has said it will continue the <b>war in Gaza</b> "with or without international support".
3		Continue	10	The day after the General Assembly vote and President Biden's warning, Eli Cohen told a visiting diplomat: "Israel will <b>continue</b> the <b>war</b> against Hamas, with or without international support."

Table 4: Sentences that construct the lexical concept of ‘war’ using near-synonym.

No	Noun	Near-Synonym of War	Near-Synonym Frequency	Sentence
1	War	Conflict	75	The longer the war in Gaza goes on, and as Israel kills more Palestinian civilians and destroys tens of thousands of homes, the greater the risk of <b>conflict</b> involving some members of those two camps.
2		Fighting	18	Mark Lowen: Israel may be <b>fighting</b> in Gaza, but fear remains a war with Hezbollah could turn the conflict into something even deadlier.
3		Battle	13	The Israel-Gaza <b>battles</b> raging on social media.
4		Violence	11	Palestinians under attack as Israeli settler <b>violence</b> surges.
5		Hostility	5	The UN says 1.9 million Palestinians have fled their homes since the war began. So far, the US has supported Israel's opposition to a pause in <b>hostilities</b> .

Table 5: Sentences that construct the lexical concept of ‘conflict’ using collocation.

No	Noun	Collocation	Collocation Frequency	Sentence
1	Conflict	Explained	12	Israel Gaza war: History of the <b>conflict explained</b> , The Palestinian militant group Hamas launched an unprecedented assault on Israel on 7 October, with hundreds of gunmen infiltrating communities near the Gaza Strip.
2		Turn	9	Mark Lowen: Israel may be fighting in Gaza, but fear remains a war with Hezbollah could <b>turn</b> the <b>conflict</b> into something even deadlier.
3		Current	3	Women and children make up about 70% of those who have been killed in Gaza during the <b>current conflict</b> , says the Hamas-run health ministry.

Table 6: Sentences that construct the lexical concept of ‘conflict’ using near-synonym.

No	Noun	Near-Synonym of Conflict	Near-Synonym Frequency	Sentence
1	Conflict	War	267	Will the <b>war</b> in Gaza shock Israelis and Palestinians into ending their century of conflict over the land between the Mediterranean Sea and the Jordan river?
2		Schism	1	These are just two examples - viewed millions of times each - showcasing the social media <b>schism</b> in the Israel-Gaza war that has brought denial of atrocities and human suffering to the forefront of online debate about the conflict.

#### 4. Discussion

In this section, the researchers agree with Evans (2009), which posits that the development of lexical concepts relies on an intricate process that is closely intertwined with sentence structure and its contextual associations. Evans (2005) shows that the lexical concept of time may also be applied to the nouns war and conflict. However, the researchers discovered that the lexical concept is not limited to 5 conventional categories. This demonstrates that the writing style used in BBC Channel 2023 generated a lexical concept that symbolizes the terms “war” and “conflict.” This is because language is arbitrary and constructed based on human cognitive processes. Besides, the sociocultural context during the time of writing this BBC news article in 2023 may have significantly impacted the political stance of the UK and its historical relationship with Israel and Palestine.

In this setting, the formation of lexical concepts was shaped by the occurrence of “war” and “conflict,” which exhibited significant disparities. The frequency of war in 25 news articles concerning Israel vs Palestine is approximately 3.6 times higher than the frequency of conflict. Although both nouns may appear similar, they possess distinct meanings and exert diverse impacts in the realm of news. Furthermore, the terms war and conflict have negative connotations due to their protracted negative consequences. This issue has persisted for centuries, with sporadic periods that have yet to deliver an end to it. These two words encapsulate the ongoing dispute and tension between Israel vs Palestine, particularly in 2023 forward. As long as this continues, their descendants will continue to know each other’s country in a manner other than as enemies who are at war with each other.

##### 4.1 The Lexical Concept of “War” as an Event

###### Future Tenses

- (1) London and Jerusalem Reuters Israeli troops prepared to enter Gaza on Wednesday, when intense fighting continued across the territory Israel's foreign minister has said it will **continue** the war in Gaza "with or without international support".
- (2) The day after the General Assembly vote and President Biden's warning, Eli Cohen told a visiting diplomat: "Israel will **continue** the war against Hamas, with or without international support."

Table 7: Schematic content associated with closed-class vehicles “continue”

Closed class vehicles	Schematic semantic content
Lexical class: verb (will continue)	Designates an entity as an event that will happen in the future and the evidence-based on formal statement
Lexical class: determiner (the)	Designates to particular things, people, places
Lexical class: noun (It; Israel)	Designates an entity as an object (as one possibility)
Grammatical relation: subject (It; Israel)	Designates entity being the primary or focal entity in a designated relationship
Grammatical relation: object (war)	The secondary entity in a designated relationship
Active voice: through the verb form	Point of view being situated at the agent
Declarative word order	Speakers know the situation is to be true and assert it to the hearer

Table 8: Rich content associated with open-class vehicles “continue”

Open-class vehicles	Schematic semantic content
It	Proper place



Israel	Proper place
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The schematic content associated with the closed class and rich content associated with open class vehicles “continue” shows [ANNOUNCEMENT OF EVENT]. The war can be interpreted as an event concept that aligns with Evans (2005). In 2023, the Israeli military continued its offensive operations, with one particularly severe incident involving the bombing of a hospital. A significant number of youngsters perished. According to United Nations OCHA figures, the overall number of Palestinian fatalities in 2023 was 13,950, with 550 deaths and 13,400 injuries. In contrast, the number of Israeli nationals who lost their lives was far lower, with 287 fatalities, including 37 deaths and 250 injuries. The comparison between Israeli and Palestinian fatalities reveals a significant disparity, with Israeli casualties accounting for only 2.06% of the total Palestinian casualties. This discrepancy raises concerns about the possibility of Israel engaging in genocidal actions against Palestine. To conclude, the semantic representation revealed from the lexical concept is [N/NP1 (the authorized country) will continue (attack incident) N/NP2 (information assertion)].

#### 4.2 The Lexical Concept of “War” as an Action

##### Present Tenses

- (3) Israel-Gaza war : Half of Gaza's population is starving, as fighting there **continues**.
- (4) The longer the war in Gaza **goes on**, and as Israel **kills** more Palestinian civilians and **destroys** tens of thousands of homes, the greater the risk of conflict involving some members of those two camps.
- (5) Mark Lowen: Israel may be fighting in Gaza, but fear **remains** a war with Hezbollah **could turn** the conflict into something even deadlier.
- (6) Palestinians under attack as Israeli settler violence **surges**.
- (7) The UN **says** 1.9 million Palestinians have fled their homes since the war began.

Table 9: Schematic content associated with closed-class vehicles “near synonym war + [verb]”

Closed class vehicles	Schematic semantic content
Lexical class: verb (continues, goes on, kills, destroys, remains, could turn, surges, says)	Designates an entity as an action/activity executed continuously
Grammatical relation: subject (Israel-Gaza; War in Gaza; Israel, Israeli, The UN)	Designates entity being the primary or focal entity in a designated relationship
Grammatical relation: object (fighting, war, conflict, violence)	The secondary entity in a designated relationship
Active voice: through the verb form	Point of view being situated at the agent
Declarative word order	Speakers know the situation is to be true and assert it to the hearer

Table 10: Rich content associated with open-class vehicles “near synonym war + [verb]”

Open-class vehicles	Schematic semantic content
Israel-Gaza	Proper nouns to designate the specific area
War in Gaza	A proper name refers to armed conflict that happens in Gaza
Israel	Proper place
Israeli	A proper name functions as a collective noun referring to the people who have the authority

The UN	Proper name functions as a collective noun referring to people who conduct the rules around the world
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The schematic content associated with the closed class and rich content associated with open class vehicles “near synonym war + [verb]” shows [INFORMATIONAL ACTION]. In this instance, the researchers incorporated a lexical concept category as an action to enhance Evans’s (2005) thought process. The noun “war” can denote an atypical action. According to the BBC news report, those sentences demonstrate ongoing offensive operations. Agent does actions that demonstrate the verbs of destruction and aggression towards other entities, resulting in casualties. To conclude, the semantic representation revealed from the lexical concept is [N/NP1 (topics) verb (attacking action) N/NP2 (accurate information)].

#### Present Continuous Tense

(8) The Israel-Gaza battles **raging** on social media.

Table 11: Schematic content associated with closed-class vehicles “near synonym war + [verb+ing]”

Closed class vehicles	Schematic semantic content
Lexical class: verb (raging)	Designates an entity as an action/activity executed continuously
Lexical class: prep (on)	Designates something in contact with an outer surface
Grammatical relation: subject (The Israel-Gaza battles)	Designates entity being the primary or focal entity in a designated relationship
Grammatical relation: object (social media)	The secondary entity in a designated relationship
Active voice: through the verb form	Point of view being situated at the agent
Declarative word order	Speakers know the situation is to be true and assert it to the hearer

Table 12: Rich content associated with open-class vehicles “near synonym war + [verb+ing]”

Open-class vehicles	Schematic semantic content
The Israel-Gaza	Proper nouns to designate the specific area

The schematic content associated with the closed class and rich content associated with open class vehicles “near synonym war + [verb+ing]” shows [INFORMATIONAL ACTION]. In this example above, the information that has been written can be interpreted as a fact. The statement constitutes headline news, resulting in the omission of the auxiliary verb (are); nonetheless, it retains a present tense categorization while conveying a negative connotation, specifically through term “raging”, which must be accompanied by auxiliary verb “are”. To conclude, the semantic representation revealed from the lexical concept is [N/NP1 (specific area) verb (informational action) N/NP2 (informational assertion)]. The researchers integrated a lexical concept category as an action to augment the cognitive framework proposed by Evans (2005). The noun war can signify an active action.

#### 4.3 The Lexical Concept of “Conflict” as an Event

##### Passive Sentence

- (9) Israel Gaza war: History of the **conflict explained**, The Palestinian militant group Hamas launched an unprecedented assault on Israel on 7 October, with hundreds of gunmen infiltrating communities near the Gaza Strip.

Table 13: Schematic content associated with closed-class vehicles “explained”

Closed class vehicles	Schematic semantic content
Lexical class: verb (explained)	Designates an entity as an event that happened in the past; this entity proved true and was approved officially by formal agreement.
Lexical class: noun phrase (Israel-Gaza war)	Designates to describe the entity as modified by adjective
Lexical class: prep (of)	Designates an entity’s possession or belonging
Grammatical relation: subject (Israel-Gaza war)	Designates entity being the primary or focal entity in a designated relationship
Grammatical relation: object (conflict)	The secondary entity in a designated relationship
Passive voice: through the verb form	Designates entities occurred not from the point of view of the agent
Declarative word order	Speakers know the situation is to be true and assert it to the hearer

Table 14: Rich content associated with open-class vehicles “explained”

Open-class vehicles	Schematic semantic content
Israel-Gaza	Proper nouns to designate the specific area

The schematic content associated with the closed class and rich content associated with open class vehicles “explained” shows [AGENTLESS INFORMATIONAL ASSERTION]. The information occurred not from the point of view of the agent. The contrary event transpired as illustrated in other media, which portrayed the Palestinian people who are attacking Israel rather than the reverse, hence necessitating a passive construction to convey the historical context that instigated the conflict. The researchers agree with Evans (2005) regarding the lexical concept of “time” that can be applied in “conflict” as an event. The statement constitutes headline news, resulting in the omission of the auxiliary verb (is); nonetheless, it retains a present tense categorization. To conclude, the semantic representation of vehicles “explained” in passive voice is [N/NP1 (topic) explained (formal evidence) CLAUSE PHRASE] the writers did not insert the agent involved.

#### 4.4 The Lexical Concept of “Conflict” as an Action

##### Present Tense

- (10) Women and children **make up** about 70% of those who have been killed in Gaza during the current conflict, says the Hamas-run health ministry.
- (11) These **are** just two examples - viewed millions of times each - showcasing the social media schism in the Israel-Gaza war that has brought denial of atrocities and human suffering to the forefront of online debate about the conflict.

Table 15: Schematic content associated with closed-class vehicles “[verb] + conflict”

Closed class vehicles	Schematic semantic content
Lexical class: verb (make up, are)	Designates an entity as an action/activity executed continuously
Lexical class: prep (about)	Designates to describe the entity as a reasonably close to
Grammatical relation: subject (women and children; these)	Designates entity being the primary or focal entity in a designated relationship
Grammatical relation: object (70%; examples)	The secondary entity in a designated relationship
Active voice: through the verb form	Point of view being situated at the agent
Declarative word order	Speakers know the situation is to be true and assert it to the hearer

Table 16: Rich content associated with open-class vehicles “[verb] + conflict”

Open-class vehicles	Schematic semantic content
Women and children	Designates the adult female people (women); a son or daughter of human parents (children)
These	Designates the entity as a plural form of this

The schematic content associated with the closed class and rich content associated with open class vehicles “[verb] + conflict” shows [INFORMATIONAL ACTION]. The assault resulted in the casualties of women and children who contravened international warfare regulations. The data indicated that 70% of the victims were Palestinians. The controversy surrounding the news of Israel-Gaza incited an extensive debate on social media, encompassing both advantages and disadvantages. The data reveals an additional lexical concept of action, complementing the perspectives of Evans (2005), due to the actions undertaken by one party that resulted in loss of life and incited turmoil on social media, despite the widespread condemnation of the Israeli attack on Palestine. To conclude, the semantic representation revealed from the lexical concept is [N/NP1 (foreground information) verb (action) conflict N/NP2 (additional information)].

#### Future Tense

- (12) **Will** the war in Gaza **shock** Israelis and Palestinians into ending their century of conflict over the land between the Mediterranean Sea and the Jordan river?

Table 17: Schematic content associated with closed-class vehicles “[will] [shock] + conflict”

Closed class vehicles	Schematic semantic content
Lexical class: verb (shock)	Designates an entity that causes such disturbance suddenly
Lexical class: determiner (the)	Designates to particular things, people, places
Lexical class: prep (in)	Designates entity is inside a container, place, or area
Grammatical relation: subject (war in Gaza)	Designates entity being the primary or focal entity in a designated relationship
Grammatical relation: object (Israelis and Palestinians)	The secondary entity in a designated relationship
Active voice: through the verb form	Point of view being situated at the agent

Declarative word order	Speakers know the situation is to be true and assert it to the hearer
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Table 18: Rich content associated with open-class vehicles “[will] [shock] + conflict”

Open-class vehicles	Schematic semantic content
War in Gaza	A proper name refers to armed conflict that happens in Gaza

The schematic content associated with the closed class and rich content associated with open class vehicles “[will] [shock] + conflict” shows [POTENTIAL RESULT]. The lexical concept shows the semantic representation [Will N/NP1 (topic) shock (action) conflict N/NP2 (the authorized countries)]. Conflict can be defined as an act of aggression that incites discord that enhances the framework Evans’s theory (2005).

## 5. Conclusion

In conclusion, the data analysis indicates that the nouns "war" and "conflict" are categorized as near-synonyms in the Merriam-Webster online dictionary, reflecting the identical lexical concepts of “event” and “action.” This aligns with the perspective of Evans (2005), since the nouns war and conflict denote acts conducted by one entity against another.

Researchers categorize these lexical concepts according to semantic representation, using both closed-class and open-class vehicles, thereby demonstrating how a word’s lexical notion becomes apparent while constructing a sentence. Each sentence contains a visible verb, facilitating researchers’ identification of its lexical concept. Data derived from 25 articles concerning Israel vs Palestine in BBC Channel 2023 indicates that the lexical concept of “war,” associated with the word “continue,” is classified as “an event announcement,” thereby identifying it as an “event.” Furthermore, the exploration of the lexical concept of “war” through near-synonym of using vehicle “verbs” results in “informational action,” which we categorize as an “action”. Simultaneously, the lexical concept of “conflict” which is associated with the word “explained”, is an “agentless informational assertion” that falls into the “event” category. Therefore, the lexical concept of “conflict” alongside near-synonyms with vehicle “verbs” reveals the lexical concepts of “informational action” and “potential result” which are classified under the “action” category.

Social factors significantly impact the coverage of the Israel-Palestine conflict, particularly by BBC channel in 2023. BBC, which is UK-owned and exhibits a discernible bias towards Israel published multiple reports on the alleged manipulation of Palestinian casualties, referred to as Pallywood, while global discourse has condemned Israel’s actions as unjust and disproportionate, leading to the emergence of the term genocide. While both words refer to a state of disagreement, the noun "war" typically conveys a more intense and impactful level of conflict compared to the noun "conflict." The mere use of the phrase war can have significant repercussions and exert a profound influence on multiple nations. Despite the United Nations' intervention, it was unable to halt the unfolding conflict. Within the BBC Channel news, there is a portrayal of Israel's involvement in the war that suggests they may not be wholly at fault. The news highlights the actions of other actors, such as Hamas and Hezbollah, who had previously attacked Israel. Additionally, the participation of Eli Cohen is emphasized, as they publicly express their intention to continue the onslaught on Gaza. However, the international community strongly criticized the large-scale attack on Rafah that occurred on May 7, 2024, when Israel intensified its military operation.

Historically, it is undeniable that England played a significant role in backing the Zionist movement. While the writing in the news aims to maintain neutrality, it does include relevant information regarding the historical context of the ongoing war and the key parties involved in explaining the reasons behind Israel's attack on Gaza. Some remarks prioritize highlighting Israel's military prowess instead of advocating for peace.

According to LCCM theory, researchers discovered that the lexical concepts are constructed from the arrangement of words in sentences. Consequently, it can be concluded that “war” and “conflict” are significantly interconnected particularly in BBC news 2023, as both exhibit the same lexical concept of “event” and “action”. The previous research mostly concentrated on the noun “war” without juxtaposing it with other nouns.

Nevertheless, this study is limited in scope since it solely focuses on comparing the lexical concept of war and conflict nouns, so aiming to uncover the underlying reasons for the observed disparities. Additional research can investigate the lexical concept of genocide and the fundamental ideological disparities between Israel and Palestine.

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# Evaluation of Health Literacy in Turkey in Line with Scientific Studies\*

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## Abstract

The aim of this study is to evaluate health literacy in Turkey in line with scientific studies. In this study, qualitative research model and document analysis technique were used. The data of the study were analyzed by descriptive content analysis, one of the types of content analysis. The problem of the study was defined as “What is the general trend of scientific studies on health literacy in Turkey?”. The findings of the research were illustrated in accordance with the determined purpose and given with tables and comments. In line with the determined purpose; it was stated that the years with the highest number of studies were 2019, 2022 and 2023 with three studies each, 6 master's and 5 phd studies were prepared according to thesis types, studies were prepared to determine the health literacy levels of teachers and university students according to the subject distribution, the universities with the highest number of studies were Ankara and Gazi universities, quantitative research method was used more among the research methods, studies were conducted with undergraduate and associate degree students at most, and the most used data collection tools were scales, T-tests and descriptive statistics. Accordingly, by evaluating health literacy in Turkey in line with scientific studies, it was determined that the general trends related to health literacy are high. The study was concluded with recommendations.

**Keywords:** Descriptive Content Analysis, Education, Health Literacy, Postgraduate Study, Qualitative Research

## 1. Introduction

Human beings have been struggling to meet their basic needs since the moment they came into existence. Just as eating, drinking and sleeping are the needs of humans, being healthy can also be expressed as a basic need. Because it is not possible for an individual who is not healthy to meet his/her basic needs. In this sense, health stands out as one of the basic needs that should be protected, cared about and worked on. People need some basic skills to live as healthy individuals. In this respect, it can be said that health literacy, which is associated with having health-related knowledge, skills and values, is among the important issues for individuals and society. Therefore, this research is shaped by the evaluation of graduate studies on health literacy.

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To start with the definition of the basic concepts, the Turkish Language Association Dictionary (2024) defines the word health as “The state of complete physical, social and spiritual well-being of the individual, well-being of the body; joy, wellness” (<https://sozluk.gov.tr/>). The World Health Organization (WHO), on the other hand, defines health as “a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity” (WHO, 2024). Literacy is basically a concept related to reading, writing, education, teaching, skills and speaking ability. In this sense, functional health literacy can be defined as the ability to read and understand health-related information and adapt to changing health conditions (Andrus & Roth, 2002; Norris & Philipps, 2003; Speros, 2005; Koçoğlu et al., 2021). Being functionally literate is recognized as the basis for all kinds of success, both in school and in life. Being literate not only contributes to personal development or personal learning but also to being successful in school and in life (Rintaningrum, 2009). In this sense, it is important that the competencies related to literacy are acquired primarily by teachers (Koçoğlu, 2021 a; Koçoğlu, 2021 b), who are individuals who think, produce and criticize as managers of the learning environment, and all other educational stakeholders.

The idea of redefining literacy as a social practice is quite new. In the first half of the twentieth century, a form of literacy-based largely on oral expression and printed texts was considered sufficient as a skill and practice approach. However, the concept of multiple literacies, introduced by Cope and Kalantzis in 2000, emerged with a measure that recognizes the influence of social and cultural contexts on different types of texts (Barton & Lennon, 2020). Thus, literacies started to emerge with their different types. It can be stated that health literacy emerged due to this diversification.

Technology plays an important role in human life in terms of meeting needs and making life easier. The increase in the use of technology day by day has harmful aspects as well as benefits (Koçoğlu et al., 2022). In recent years, the increase in the rate of seeking treatment over the internet, especially regarding health problems, the difficulty in accessing accurate information about health due to digital pollution, and the increase in health problems caused by digitalization have led to the emergence of the concept of health literacy as a necessity. With increasing digitalization, it is seen that excessive repetitive online health research related to health anxiety or distress has caused an intensity in studies on many disorders, especially cyberchondria. Therefore, it has been understood that individuals should critically analyze their health-related knowledge and be equipped by balancing the use of technology in a healthy way. This situation further increases the importance given to the concept of health literacy (Aydemir & Yaşar, 2023; Ekinci et al., 2021; Starcevic, 2017; Starcevic et al., 2020).

One of the first conditions for a person to lead a quality, productive, prosperous and happy life is to be a healthy individual. Therefore, health is an important human capital that needs to be cared and protected, and it has led to the emergence of the concept of health literacy by meeting with a certain knowledge, experience and interest (Avcu & Dal Biçer, 2024). In this sense, the concept of “health literacy” first appeared in the study titled “Health Literacy as social policy” prepared by Scott K. Simonds in 1974 (Aktaş, 2018; Simonds, 1974). However, the widespread use of the concept came after the “National Assessment of Adult Literacy” (NAAL) study conducted in the United States in 2003. Health literacy is a concept that still attracts the attention of many researchers and increases its importance day by day (Balçık et al., 2014; Uruç Öztürk, 2018). In this direction, health literacy aims to create health awareness in the society by providing adults with the ability to make the right decisions about their own health in order to protect and maintain health. The concept of health literacy has evolved from a history of identifying, redefining and quantifying the functional literacy needs of the adult population (Berkman et al., 2010; Kalaycı Oflaz, 2023; Kickbusch et al., 2005; Nutbeam & Kickbusch, 1998). Health literacy is related to reading and understanding health-related information, making appropriate decisions and sharing responsibilities by using that information (Osborne, 2012; Weiss, 2003). Health services inherently affect health outcomes through activities carried out at three main points: transportation, self-care, and interaction between the health care team and the patient (Yılmaz & Tiraki, 2016). It can be stated that by improving health literacy and services, results will be obtained in the desired direction (Ali et al., 2024). Therefore, those who master these three points are expected to reach a level that can protect their health as health literates.

Health literacy is shaped by three basic skills such as health care, disease prevention and health promotion (Ulu Kalın, 2021). In this sense, failure to develop health literacy skills leads to some negative consequences. These include poor health status, lack of knowledge about medical care and conditions, decreased understanding of



medical information, lack of understanding and use of preventive services, poor perception of personal health status, low compliance rates, increased hospitalizations and increased health care costs. Medical communities need to acknowledge these problems and develop strategies to overcome the barriers that limit patients' ability to adequately navigate the health care environment (Andrus & Roth, 2002). Otherwise, in addition to increased costs, societal health is likely to suffer. As a matter of fact, taking preventive measures in health can contribute more to reducing health costs and protecting public health (Palumbo, 2017).

Although there are many studies on this research in Turkey (Akyüz, 2021; Alp & Mete, 2023; Çelik & Kuçlu, 2022; Ekinci et al., 2021; Koç Akran, 2021; Kurtulmuş & Ilgın, 2024; Şantaş, 2021; Turan et al., 2023) and in the international literature (Huy, 2022; Kondilis et al., 2008; Paucar-Caceres et al. 2023; Tabak et al., 2023; Tavousi et al., 2022; Qi et al., 2021), any study on the subject wasn't found up-to-date and only in the field of education. In this respect, it is thought that this study is important and will contribute to literature.

The general aim of this study is to evaluate health literacy in Turkey in line with scientific studies. In this direction, the main problem of the research was determined as "What is the general trend of scientific studies on health literacy in Turkey?". In line with the stated purpose and importance, answers to the following sub-objectives were sought;

1. What is the distribution of postgraduate studies on health literacy in the field of education according to years?
2. What is the distribution of postgraduate studies on health literacy in the field of education according to their types?
3. How is the distribution of postgraduate studies on health literacy in the field of education according to the subjects?
4. What is the distribution of postgraduate studies on health literacy in the field of education according to universities?
5. What are the research methods used in graduate studies on health literacy in the field of education?
6. With which study group or participants were the postgraduate studies on health literacy in the field of education conducted?
7. What is the distribution of postgraduate studies on health literacy in the field of education according to data collection tools?
8. What is the distribution of postgraduate studies on health literacy in the field of education according to data analysis methods?
9. What is the distribution of postgraduate studies on health literacy in the field of education according to data analysis methods?

## **2. Method**

This section includes four subheadings: the research model, the scope of the research, the data collection tool, the data collection process and the analysis of the data.

### *2.1. Research Model*

In this study, qualitative research model and document analysis technique were used. Qualitative research can be defined as a research method in which meaning and understanding are concentrated, the researcher is the main tool, rich descriptions are made, and an inductive process is followed (Merriam, 2018). Qualitative research aims to answer questions related to understanding the dimensions of meaning and experiences of people's lives and social worlds. Central to good qualitative research is whether researchers illuminate subjective meanings, actions and social contexts as they understand them (Fossey et al., 2002). Besides, in qualitative research, there is an effort to reach a deep understanding of the subject matter. In this respect, the researcher acts like an explorer, traces the reality with additional questions and attaches importance to the subjective perspective of the interlocutor (Karataş, 2015).

Document review technique is a technique related to obtaining, reviewing, questioning and analyzing various documents, which are considered as primary or secondary sources that constitute the data set of the research. Document review is a systematic process of examining or evaluating both printed and electronic materials. Documentary materials in various forms such as meeting minutes, guides, books, diaries, journals, magazines, letters, newspapers, radio and tv program scripts, corporate reports, survey data, various public records, sketchbooks and photo albums can be used for systematic evaluation (Bowen, 2009). In this sense, it can be stated that any written document or source can be analyzed through document analysis.

## *2.2. Scope of the Study*

This study will examine the general trends of health literacy in Turkey in line with scientific studies. The theoretical population of the study consists of 11 postgraduate theses published in Turkey between 2015 and 2023 on health literacy only in the field of education. All of the theses included in the scope of the study consisted of studies published as open access in the database of YÖK National Thesis Center until August 12, 2024. The names of the theses, the years they were published in and by whom they were written are presented in Appendix 1.

## *2.3. Data Collection Instrument and Procedure*

As stated before, the aim of this study is to evaluate the postgraduate studies on health literacy in the field of education in Turkey according to different criteria. For this purpose, the keyword “health literacy” was searched in the database of YÖK National Thesis Center. Theses were examined in detail and 11 postgraduate studies on health literacy were identified only in the field of education. The specified studies were first downloaded to the computer and a thesis list was created. On 12.08.2024, when the scanning was made, 11 postgraduate studies on health literacy prepared only in the field of education were examined in the system in accordance with the predetermined criteria. After the examinations, the necessary data were collected through the publication classification form developed by Çiltaş et al. (2012) and adapted to this study. In this direction, evaluations were made by determining the years, thesis types, subjects, universities, methods, participants/study group, data collection tools, data analysis methods and results of the specified postgraduate studies. The data obtained were tabulated and presented in the findings section with comments.

## *2.4. Data Analysis*

Document analysis is categorized into three groups: meta-analysis, meta-synthesis and descriptive content analysis. Descriptive content analysis was used in this study. Descriptive content analysis can be defined as a systematic study that involves determining the trends and evaluating the research results in a descriptive dimension by considering the studies conducted on a specific subject (Çalık & Sözbilir, 2014). In this study, the trends in the literature were tried to be determined as postgraduate studies on health literacy in the literature were analyzed in line with the criteria previously determined by the researcher.

## **3. Findings**

In this section, the findings obtained for the research questions are analyzed in order. The data obtained are presented in tables with their interpretations below.

### *3.1. Distribution of Studies by Year*

The findings regarding the distribution of postgraduate studies on health literacy in the field of education according to the years are given in Table 1.

Table 1: Findings Regarding the Distribution of Studies According to Years

Distribution of Studies by Year	<i>f</i>	%
2023	3	% 27.27
2022	3	% 27.27
2020	1	% 9.09
2019	3	% 27.27
2015	1	% 9.09
Total	11	% 100

When the findings regarding the distribution of studies by years in Table 1 are examined, it is seen that the first study on health literacy in the field of education was prepared in 2015. The years with the highest number of studies were 2019, 2022 and 2023, with 3 studies each, and the years with the lowest number of studies were 2015 and 2020. Looking at the rate of preparation of the studies, it is seen that there is a significant growing trend in the studies prepared after 2019. However, it can be said that the number of studies prepared on the subject is not yet at the desired rate.

### 3.2. Distribution of Studies According to Thesis Types

The findings related to the distribution of postgraduate studies on health literacy in the field of education according to thesis types are given in Table 2.

Table 2: Findings According to the Thesis Types of the Studies

Posgraduate Level	<i>f</i>	%
Master's Degree	6	% 54.54
PhD	5	% 45.45
Total	11	% 100

When the findings regarding the distribution of studies according to thesis types in Table 2 are examined; it is seen that a total of 11 graduate studies were prepared. It was determined that 6 of these studies were prepared at master's level and 5 of them were prepared at phd level. It can be stated that the results are close to each other and the graduate studies are almost at the same level. In another aspect, it can be stated as a remarkable result that phd studies are at a close level with master's studies.

### 3.3. Distribution of Studies by Subjects

The findings regarding the distribution of postgraduate studies on health literacy in the field of education according to the subjects they were prepared are given in Table 3.

Table 3: Findings Regarding the Distribution of Studies According to Subjects

Study Subjects	Studies	<i>f</i>
1. Health literacy in secondary school textbooks	S-1	1
2. Health literacy levels of teachers and pre-service teachers	S-2, S-3, S-10	3
3. The effect of health education on health literacy of secondary school students	S-7	1
4. Health literacy levels of university students	S-4, S-5, S-6,	3
5. Factors affecting e-health literacy skills of chronic patients	S-8	1
6. Artificial intelligence to support health literacy	S-9	1
7. Gamified health literacy training	S-11	1
Total		11

When the findings regarding the distribution of the studies according to the subjects in Table 3 were examined, it was determined that the studies aimed at determining the health literacy levels of university students (f-3) and the studies aimed at determining the health literacy levels of teachers and teacher candidates (f-3) stand out in terms of subject matter. In addition, it was seen that there are studies prepared on different topics such as health literacy in textbooks, e-health literacy skills of chronic patients, support of artificial intelligence to health literacy and gamified health literacy education. In this direction, it was determined that postgraduate studies on health literacy are concentrated on educational stakeholders such as teachers, preservice teachers, students and textbooks.

### 3.4. Distribution of Studies by Universities

The findings regarding the distribution of the universities where the postgraduate studies on health literacy in the field of education were prepared are shown in Table 4.

Table 4: Findings on the Distribution of Studies According to Universities

The name of university	<i>f</i>
1. Ankara University	2
2. Gazi University	2
3. Atatürk University	1
4. Burdur Mehmet Akif Ersoy University	1
5. Fırat University	1
6. Hacettepe University	1
7. Isparta Applied Sciences University	1
8. İstanbul University	1
9. Marmara University	1
Total	11

When the findings in Table 4 regarding the distribution of the studies according to the universities where the studies were conducted were examined; it was seen that a total of 11 studies were prepared in 9 different universities. In this sense, there was a diversity in the number of universities. In addition, the fact that the studies were generally prepared in universities in big cities can be stated as another remarkable result. When the findings were examined, the universities where the most studies were prepared were Ankara and Gazi universities with 2 studies each. Apart from this, it was determined that Atatürk, Burdur Mehmet Akif Ersoy, Fırat, Hacettepe, Isparta Applied Sciences, Istanbul and Marmara universities prepared 1 study each. Considering the existence of more than 200 universities in Turkey, it can be said that the number of universities where studies were conducted is quite insufficient.

### 3.5. Research Methods Used in the Studies

The findings related to the research methods used in postgraduate studies on health literacy in the field of education are shown in Table 5.

Table 5: Findings Regarding the Research Methods Used in the Studies

Method	<i>f</i>	%
Quantitative Method	7	% 63
Mixed	3	% 27
Qualitative Method	1	% 9
Total	11	% 100

When the findings related to the research methods used in the studies on health literacy were analyzed in Table 5, it was determined that there were 7 quantitative, 3 mixed and 1 qualitative studies. Accordingly, it was seen that quantitative method was the most used method (*f*-7) in the studies. The number of studies prepared with mixed methods (*f*-3) was also significant. Studies prepared with qualitative method (*f*-1) were prepared at the lowest level. In this direction, it was determined that quantitative and mixed methods were mostly used in studies on health literacy, while qualitative methods were not yet at the desired level. It can be said that this situation was because the subject of health literacy requires multi-participant studies.

### 3.6. Participants of Studies/Study Group

The findings regarding the participants/study group of the postgraduate studies on health literacy in the field of education are given in Table 6.

Table 6: Findings Regarding the Participants / Study Group of the Studies

Participants/ Study Group	Studies	<i>f</i>
Undergraduate and associate degree students	S-4, S-5, S-6	3
Middle and high school students	S-1, S-7	2
Teachers and prospective teachers	S-2, S-10	2
Physicians specialized in different fields	S-9	1
Chronic patients	S-8	1
Teachers and students	S-3	1
Adults over 18 years of age	S-11	1
Total		11

When the findings regarding the participants/study group of the postgraduate studies in Table 6 were examined, it was determined that most of the studies were conducted with undergraduate and associate degree students. The number of studies prepared with secondary and high school students, teachers and teacher candidates was also significant and at a considerable level. In addition to these, there were studies conducted by physicians specialized in different fields, chronic patients, teachers and students, and adults over the age of 18. One of the noteworthy issues in this direction was the diversity of participants or study groups, and the other was that not only education stakeholders but also health stakeholders were included in the studies. The reason for this may be that a broad field selected from the fields of health and education was chosen as the study area.

### 3.7. Data Collection Instruments of the Studies

The findings regarding the data collection instruments of the postgraduate studies on health literacy in the field of education are given in Table 7.

Table 7: Findings Related to Data Collection Instruments of the Studies

Research Model	Data Collection Instrument	<i>f</i>
Quantitative	Scale	6
	Survey	1
Mixed	Survey – Interview Form	1
	Survey – Interview Form	1
	Scale – Open-ended Questions/Rubric for Case Study Activities	1
Qualitative	Interview Form	1
Total		11

Table 7 presents the findings regarding the data collection instruments used in the preparation of graduate studies on health literacy. Accordingly, it was determined that the most used data collection instruments were scales (f-6), some of which consisted of questionnaires without validity and reliability, for different subjects in quantitative studies. In the mixed-method studies, it was determined that instruments such as interview forms, open-ended questions for case study activities and rubrics were used together with scales and questionnaires, some of which consisted of questionnaires without validity and reliability. Finally, in a qualitative study, a semi-structured interview form was used as a data collection tool. In this direction, it was understood that data collection instruments such as scales and questionnaires were generally used in quantitative studies.

### 3.8. Data Analysis Methods of the Studies

The findings regarding the data analysis methods of the postgraduate studies on health literacy in the field of education are given in Table 8.

Table 8: Findings Related to Data Analysis Methods of the Studies

Method	Statistics Method	Data Analysis Method	Conducted Studies	Frequency ( <i>f</i> )	
M I X E D	Qualitative	Content Analysis	S-2	1	
		Content Analysis	S- 7, S-9	2	
		Descriptive Analysis and Content Analysis	S-3	1	
		Holistic Scoring Rubric	S-7	1	
M O D E L	Quantitative	Descriptive	Mean /Standard Deviation	S-9	1
			T-test	S-3, S-9	2
		Predictive (Inferential)	ANOVA	S-3, S-9	2
			Post-Hoc Analysis	S-3	1
			Tamhane's T2 Test	S-3	1
			Scheffe Test	S-3	1
			Achievement Test	S-7	1
			Tukey HSD	S-9	1

	Mean /Standard deviation /Frequency/Percentage/Number /Standard Point/Class Level	S-1, S-5, S-6, S-8	4	
Quantitative	Descriptive	Bartlett Test	S-6	1
		T-test	S-1, S-5, S-6, S-8, S-10	5
		ANOVA	S-5, S-10	2
		Kaiser-Meyer-Olkin (KMO) Test	S-6	1
		CHAID Analysis Technique	S-8	1
		Levene Test	S-6,	1
	Predictive (Inferential)	Chi-square Test	S-8	1
		Mann Whitney U Test	S-4, S-11	2
		Kruskal Wallis Test	S-4, S-11	2
		Wilcoxon Signed Ranks Test	S-11	1
		Kolmogorov Smirnov Test	S-4, S-11	2
		Spearman Correlational Test	S-11	1
		Chi-Square Test	S-4, S-6	2
		Normality Test	S-6	1
		Factor Analysis	S-5	1
		Covariance Structural Analysis	S-1	1
		Cronbach Alfa	S-1, S-4, S-6	3
		Total		

When the findings regarding the data analysis methods of the studies in Table 8 were examined, it was seen that the most used data analysis methods were T-test (f-5) in quantitative studies, T-test (f-2) and ANOVA (f-2) (quantitative part) and content analysis (qualitative part) (f-2) in mixed model studies. It was determined that content analysis technique was used in the only qualitative study of the research. In addition, in quantitative studies, data analysis methods such as descriptive statistics (f-4) (frequency, percentage, standard score, arithmetic mean, standard deviation, number and grade level) and Cronbach's Alpha (f-3) were used to a significant extent.

### 3.9. Results of the Studies

The findings related to the results of postgraduate studies on health literacy in the field of education are shown in Table 9.

Table 9: Findings on the Distribution of Studies According to Results

Code of the Studies	Results of the Studies
S-1	According to the results obtained from the research, it was determined that the majority of the students had low levels of health literacy, while their attitudes towards health issues were positive. It was observed that biology textbooks and curricula didn't contain sufficient information to increase health literacy.
S-2	According to the data obtained from the study, it was determined that pre-service science teachers were aware of the relationship between nutrition and health and therefore act consciously regarding the use of medication. In addition, it was determined that pre-service teachers had high levels of awareness about utilizing health services, were aware of the importance of first aid for human life, and that the science course would provide a positive contribution to the development of health literacy.
S-3	According to the quantitative findings obtained from the research, the health literacy status of secondary school students was generally found to be at a high level. When the results obtained from the interviews conducted with secondary school students in the research were examined, it was seen that the students' awareness of health literacy was high and the quantitative findings were supported.

S-4	According to the findings of the study, health behaviors of health technician students were found to be determinant in health literacy scores and health literacy level.
S-5	As a result of the study, it was determined that university students had sufficient level of health literacy knowledge. It was concluded that women participating in the study were more knowledgeable than men. It was determined that students who followed innovations in the field of health had higher health literacy levels than students who didn't follow innovations.
S-6	According to the results obtained from this study, it was found that the health literacy levels of the students were at an adequate level. However, based on the education program and grade levels, it was revealed that social work education didn't create a statistically significant difference in the health literacy levels of students in the processes of accessing, understanding, evaluating and using information. In addition, it was determined that there was no statistically significant difference in the treatment, service, disease prevention and health promotion dimensions of health literacy according to the education program and grade levels.
S-7	When the qualitative data of the study were analyzed, it was concluded that health education supported by case studies was more effective in increasing the health knowledge of secondary school students. However, it was observed that the health education supported by case studies didn't make a significant difference in the health literacy levels of the students compared to the students who received health topics education with the current program. By analyzing the quantitative data of the study, it was determined that students were familiar with epidemic diseases, epidemic-related science concepts, ways of spreading diseases, measures to be taken to prevent transmission in case of an epidemic and developed positive attitudes towards epidemic-related hygiene and nutrition habits, and epidemic-related ethical and empathic views.
S-8	Internet and different social media use was found to be an important factor on e-health literacy skills. Thanks to the use of digital technologies, chronic patients can access health information more accurately. However, mobile health text message training can be used as an educational tool to increase patients' awareness of healthy living and to direct patients to more accurate health information.
S-9	The physicians participating in the study found ChatGPT reliable in terms of providing accurate information. The level of the above "risk of producing erroneous information" can be determined by using ChatGPT more frequently. While ChatGPT was considered as a tool to support health literacy, its functional use depends on increasing health literacy.
S-10	When the correlation analysis results were examined in this study, it was determined that there were significant positive relationships between all dimensions. There was a significant difference in terms of age, gender and whether the participants were vaccinated against COVID-19; however, there was no significant difference in terms of marital status, professional experience, education level and the institution where they worked. In line with the results of the study, it was recommended to conduct a comprehensive study involving other professional groups and to inform the public and students about health literacy through cooperation and protocols with the Ministry of National Education and stakeholder institutions due to the high level of knowledge of teachers about health literacy.
S-11	Statistical analysis showed that there was a significant difference between the pre- and post-test scores of the users ( $p < 0.05$ ). Furthermore, the analysis of the post-test results revealed significant differences between participants of different educational and age groups. Finally, the analysis shows that there is a negative relationship between users' post-test scores and their body mass index. The results of this study are expected to contribute to the gaps in the literature on health literacy and gamification.

According to the results obtained from the studies, it was concluded that the health literacy levels of secondary school, associate and undergraduate students, adult chronic patients and other participants were generally high (f-8). In addition, it can be stated that health literacy levels have increased with the development of digital technologies and health literacy training has increased health literacy skills. Finally, in the findings of quantitative studies in which different dimensions were examined, there were studies supporting the high level of health literacy, while there were some studies that didn't support it.



#### 4. Discussion and Conclusion

The concept of health refers to an individual's physical, mental and social well-being. To have a healthy life, it is expected to reach a certain level of awareness. In this sense, becoming a health literate individual is realized through the correct use of certain knowledge, skills and abilities. Hence, it can be stated that it is important for individuals and society to develop health awareness by undergoing certain health-related training.

The results obtained from this research are remarkable. The results obtained contain important clues about health literacy in the field of education. According to the findings obtained in this direction; the years in which the most studies were prepared were 2019, 2022 and 2023 with three studies each; according to the types of theses, master's theses were prepared more; when the distribution of the studies according to the subjects of the studies was examined, it was determined that most studies were prepared to determine the health literacy levels of teachers, teacher candidates and university students; when the distribution of the studies according to universities was examined, it was determined that two studies were prepared in Ankara and Gazi universities and one study was prepared in other universities. Among the research methods used in the studies, quantitative research method was used more; when the findings related to the participants/study group of the studies were examined, it was determined that there were mostly studies conducted with undergraduate and associate degree students; the most commonly used data collection tools in the studies were scales consisting of questionnaires, some of which were not validated and reliable for different subjects in quantitative studies; when the findings related to the data analysis methods used in the studies were examined, it was determined that T-test and descriptive statistics were mostly used in quantitative studies. Furthermore, when the results obtained from the studies were examined, it was seen that the health literacy level and awareness of students from different levels and other participants were at a high level. According to these results, it can be stated that the participants had sufficient knowledge, skills and equipment to understand what they read about health and apply them correctly to their lives.

In the study prepared by Turan et al. (2023), it was found that the issue of health literacy attracted the most attention in 2022 as of 2011 and that studies in the field of nursing were concentrated; In the study conducted by Paucar-Caceres et al. (2023), it is determined that the interest in health literacy among scientists has gradually increased and the number of publications has increased significantly especially in the last five years. This finding is similar to the results of this study. In this study, the number of master's and doctoral theses were close to each other; in Alp & Mete's (2023) study, the number of studies at master's thesis level was almost five times the number of studies at doctoral thesis level; in Kurtulmuş & Ilgın's (2024) study, although there were 19 master's theses, there were no studies at doctoral level. Doctoral level and similar to the results of this study, it was determined that the number of studies with qualitative design was insufficient. According to the types of theses, it was seen that the number of studies on health literacy in the master's degree type is high. In this study, while the number of studies on determining the health literacy levels of teachers and students was high; in the study conducted by Koç Akran (2021), it was understood that the most emphasized concepts were concepts such as "information search", "information interpretation" and "health awareness". Finally, according to the results obtained from this study, although it was determined that the health literacy level of the participants was high, it was seen that the health literacy level of the participants was insufficient in the study conducted by Andrus & Roth (2002). As a result, it was determined that the level of health literacy in postgraduate studies prepared in the field of education related to health literacy in Turkey is high and there is a general increasing trend in the number of studies on the subject. It can be stated that the use of digital technology increases the level of awareness, and the training provided by different individuals, institutions and organizations for health literacy are effective in this sense. However, it can still be stated that the number of studies on health literacy in the field of education is not sufficient and further studies should be conducted on the subject.

In this direction, the following suggestions can be made;

- Qualitative studies can be featured more by increasing the number of theoretical or applied studies on the subject at different educational levels related to the field of education.
- Meta-analysis or descriptive content analysis studies with wider participation in terms of subject and scope can be conducted.
- Elective health literacy courses to be taught at different levels of education can be added to curricula

or integrated into courses by associating them with daily life.

- Considering that the entire society passes through educational institutions in one way or another, it may be useful to organize informative meetings, conferences, panels and symposiums to increase health literacy skills.
- To spread preventive health measures, programs and advertisements can be created and presented to the public through digital platforms.

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## Appendix-1

Number	Year	Postgraduate Level	Author	The scientific studies used in the study
1.	2015	PhD	Suzan SÖNMEZ	Ortaöğretimde Sağlık Okuryazarlığı
2.	2019	PhD	Abdullah Alper ERTEM	Sağlık Okuryazarlığının Sağlık Davranışlarıyla İlişkisi (Sağlık Teknikerliği Öğrencileri Üzerine Bir Araştırma)
3.	2019	Master's Degree	Bahar GÖRGÜN	Üniversite Öğrencilerinin Sağlık Okuryazarlığı Düzeyini Belirlemeye Yönelik Bir Araştırma (Fırat Üniversitesi Örneği)
4.	2019	Master's Degree	Selim ÜRGÜN	Sosyal Hizmet Eğitiminin Sağlık Okuryazarlığı Düzeyi Üzerine Etkisi: Erzincan Üniversitesi Örneği
5.	2020	Master's Degree	Özge SARIKAYA	Fen Bilgisi Öğretmen Adaylarının Sağlık Okuryazarlığı Durumları
6.	2022	PhD	Alp Eren YÜCE	Kronik Hastaların E-Sağlık Okuryazarlığı Becerilerini Etkileyen Faktörlerin Belirlenmesi ve Mesajla Bilgilendirme Eğitimi Geliştirilerek Etkisinin İncelenmesi
7.	2022	PhD	Burcu KARAMAN	Sosyal Bilgiler Eğitimi Çerçevesinde Sağlık Okuryazarlığı: Öğretmen Görüşleri ve Öğrencilerin Sağlık Okuryazarlık Durumları
8.	2022	Master's Degree	Hatice Nur AÇIK	Örnek Olaylarla Desteklenmiş Sağlık Eğitiminin Ortaokul Öğrencilerinin Salgın Hastalıklarla İlgili Bilgi, Tutum ve Sağlık Okuryazarlığına Etkisinin İncelenmesi
9.	2023	Master's Degree	Mustafa Said YILDIZ	Yapay Zekâ Sohbet Robotunun Sağlık Okuryazarlığını Desteklemesine Yönelik Hekim Değerlendirmelerinin İncelenmesi
10.	2023	Master's Degree	Abdil LORCU	Öğretmenlerin Sağlık Okuryazarlığı Düzeylerinin Belirlenmesi: Isparta İli Örneği
11.	2023	PhD	Ekrem KUTBAY	Oyunlaştırılmış Sağlık Okuryazarlığı Eğitimi ve Etkileri

# Fostering Cross-Cultural Competence through Discourse-Based Language Teaching: English Teachers' Narratives

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## Abstract

This paper explores the integration of discourse in English language teaching to enhance communicative competence, focusing on teachers' perspectives regarding its role, implementation strategies and related challenges. Grounded in the recognition of discourse as pivotal to fostering real-world communication skills, the study examines how teachers conceptualize and apply discourse strategies to develop students' adaptability and cross-cultural competence. Utilizing a narrative inquiry methodology, data were collected through in-depth interviews with five experienced university teachers, offering insights into the practical and theoretical aspects of discourse-based teaching. The findings reveal that teachers employ strategies such as role-playing, video analysis and group discussions to simulate authentic communicative contexts, which promote critical thinking and pragmatic awareness among learners. However, challenges including limited resources, time constraints, and varying levels of student engagement hinder the full implementation of discourse-rich pedagogy. The study contributes significantly to the field by highlighting how discourse bridges linguistic knowledge with practical communication skills, aligning with theories of communicative competence and sociocultural learning. This study not only informs teaching practices but also provides a foundation for further studies to explore its long-term impact across diverse educational contexts.

**Keywords:** Discourse Analysis, Pragmatic Awareness, Cross-cultural Competence, English Language Teaching (ELT), Teaching Strategies

## 1. Introduction

The role of discourse in language teaching has garnered significant attention as educators recognize its centrality in fostering communicative competence among language learners. Discourse, encompassing both the spoken and written language, addresses the dynamic nature of communication, extending beyond mere grammatical and lexical accuracy to the nuanced understanding of context, purpose, and interactional strategies. As Crystal (2003) explains, discourse refers to “a continuous stretch of (especially spoken) language larger than sentence than a sentence- but within this broad notion, several applications may be found.” (p. 141). Cook (2010) further elaborates on discourse as “stretches of language perceived to be meaningful, unified, and purposive (p.156)” emphasizing how discourse is shaped by and responsive to its situational framework.

Trask (2004) complements this view describing discourse as “any connected piece of speech or writing. A discourse may be produced by a single speaker or writer by two or more people engaging in a conversation (or rarely) in a written exchange” (p. 78). In a similar vein, McCarthy (2010) describes discourse analysis as “the

study of the relationship between language and the context in which it is used” (p. 5), highlighting the importance of examining how meaning is constructed in interaction with social and situational factors. Flowerdew (2016) further clarifies that discourse studies involve the “study of language in its contexts of use and above the level of the sentence” (p. 1). Together, these perspectives emphasize that discourse not only involves extended stretches of language but also reflects coherence and continuity in communication. In language teaching, this highlights the importance of preparing learners to interpret and produce connected language, equipping them with the skills necessary to understand and contribute to meaningful communicative exchanges that go beyond isolated sentences. Discourse analysis as elaborated by Cook (2010),

examines how stretches of language, considered in their full textual, social, and psychological context become meaningful and unified for their user. It is rapidly expanding field, providing insights into the problems and processes of language use and language learning, and is therefore of great importance to language teachers. Traditionally language teaching has concentrated on pronunciation, grammar, and vocabulary, and while these remain the basis of foreign language knowledge, discourse analysis can draw attention to the skills needed to put this knowledge into action and to achieve successful communication. (p. ix)

Schiffirin (1994) further broadens this perspective, defining discourse as “language above the sentence level” and focusing on the structures that organize language use in extended communication (p. 5). This viewpoint highlights the role of discourse in understanding cohesive structures and interpretive mechanisms beyond isolated sentences, making it essential for learners to master discourse for effective communication. Gee (1999, p. 205) defines discourse “as any instance of language-in- use or any stretch of spoken or written language” (often called a ‘text’ in the expanded sense where texts can be oral or written). Gee (1999) complements this by asserting that discourse includes ways of speaking, behaving, and valuing that are characteristic of particular social identities, which aligns language learning with the development of social identity and cultural understanding.

In addition to defining discourse, the concept of communicative competence, a fundamental outcome of discourse-oriented teaching, is foundational to understanding language acquisition. Hymes (1972) initially introduced communicative competence, describing it as the knowledge of what is grammatically possible and what is contextually appropriate. Canale and Swain (1980) extended Hymes’ concept by identifying four dimensions of communicative competence: grammatical, sociolinguistic, discourse, and strategic competence, underscoring the importance of discourse in achieving communicative proficiency (p. 30). Together, these perspectives frame discourse as essential in helping learners interpret and produce language in ways that reflect authentic communication.

The integration of discourse in language teaching has gained increasing focus, as it equips students for real-world communication that extends beyond isolated sentences. Discourse analysis provides essential insights into the nature of communication, moving beyond grammar and vocabulary to encompass elements like context, speaker intent, and audience reception. Discourse analysis, which examines how language functions within social and contextual frameworks, traces back to foundational work by Harris (1952), who was among the first to highlight the importance of analyzing “language beyond the sentence.” Harris’s work introduced a shift in linguistics, prompting studies that view language as part of a broader communicative structure shaped by context. Sinclair and Coulthard (1975) developed a model of discourse specifically for classroom settings, showing how discourse shapes social interactions, roles, and intentions. This model has impacted language teaching by underscoring discourse as vital for developing communicative competence.

Consequently, discourse integration in English language teaching has become essential for fostering communicative competence. Fairclough (2003) argues that discourse analysis promotes critical thinking and self-reflection, enabling students to understand how language is both shaped by and shapes social structures. This aligns with the objectives of communicative language teaching, which prioritizes the development of practical language skills that prepare students to engage in meaningful interactions in varied settings.

This research article aims to investigate teachers’ perspectives on the role of discourse in English language teaching, exploring how discourse integration is perceived as a tool for enhancing communicative competence.

Through this study, the goal is to understand how teachers view and employ discourse strategies to prepare students for effective, context-sensitive communication, illuminating the practices that lead to successful language teaching.

### *1.1 The Emergence of Discourse Analysis in Language Education*

In recent years, discourse and discourse analysis have gained prominence in language teaching, reflecting a shift from viewing language as a set of rules to understanding it as a dynamic tool shaped by social interaction and context. Sinclair and Coulthard's (1975) work in classroom discourse highlighted how language choices depend on situational factors, participant roles, and communicative intent, forming the foundation for integrating discourse analysis into language education. This approach equips students with the skills to interpret and respond effectively to real-life language use. Additionally, Gee (1999) emphasized that "discourse encompasses both linguistic elements and the social practices that give them meaning, fostering sociocultural awareness and "social and cultural competence" (p. 37). By embedding discourse analysis into teaching, educators promote critical thinking and holistic communicative competence, enabling learners to adapt and navigate the linguistic and cultural demands of real-world interactions.

### *1.2. Teaching Discourse and Discourse Analysis in Language Education*

Teaching discourse and discourse analysis in language classes enables students to comprehend and use language as a dynamic tool for communication, grounded in social and contextual relevance. Discourse analysis moves beyond the isolated study of sentences to focus on language in interaction, providing students with a holistic understanding of how language operates in real-life communication. According to Gee (1999), discourse "encompasses both the linguistic forms used and the social practices that give them meaning, thus enabling students to understand language as a means of participating in broader social and cultural contexts" (p. 34). When students learn to analyze discourse, they acquire skills in interpreting language as it is used within various social settings, preparing them to communicate appropriately and effectively in the target language. This contextualized approach to language learning aligns with communicative competence, as it trains students to navigate language functions in social situations, adapting to the nuances of communication beyond mere grammatical correctness.

Discourse analysis also encourages critical thinking and a deeper understanding of language functions, which are essential for communicative competence. van Dijk (1997) highlights that discourse is inherently tied to social power structures, cultural norms, and individual identities, underscoring that language use is shaped by and shapes these social elements (p. 5). By engaging students in discourse analysis, language teaching moves beyond vocabulary and structure, fostering what Gee (1999) calls "social and cultural competence" (p. 37). Through discourse analysis, students become adept at analyzing interactions, recognizing implicit meanings, and responding to communicative cues—skills that are invaluable for effective communication in both academic and social contexts. Integrating discourse analysis into language classes, therefore, provides students with tools to not only understand language in use but also to critically examine how it reflects and influences social dynamics, making them more capable, culturally aware language users.

## **2. Theoretical Framework**

### *2.1. Communicative Competence and Discourse Analysis*

The concept of communicative competence, introduced by Hymes (1972), serves as a foundational theory in integrating discourse analysis within ELT. Hymes argued that effective language use requires more than grammatical accuracy; it involves knowledge of social norms, the ability to modify language for various contexts, and the capacity to convey meaning appropriately. This framework supports the view that discourse analysis is essential for teaching language as a social practice, where learners not only form accurate sentences but also engage meaningfully across diverse discourse communities.



## 2.2. Sociocultural Theory and the Zone of Proximal Development

Discourse analysis in language teaching is further grounded in Vygotsky's (1978) sociocultural theory, particularly his concept of the Zone of Proximal Development (ZPD). Vygotsky posited that learning occurs most effectively within social interactions, where students are supported in tasks that challenge them just beyond their current abilities. Through discourse-based activities, students engage in authentic communication that promotes both language development and social learning, aligning with the ZPD's emphasis on collaborative, contextualized language use.

## 2.3. Discourse as Social Practice: Gee's Perspective

Gee's (1999) theory views discourse as a means to understand language's "social and cultural functions," underscoring that language is intricately tied to the social practices it represents (p. 34). In this view, discourse encompasses both the linguistic choices made by individuals and the social frameworks that give those choices meaning. By teaching discourse analysis, educators help students gain insight into language as a tool for navigating diverse social and cultural contexts, enhancing their communicative and social competence.

## 2.4. Power, Social Role and Discourse Structures

Van Dijk's (1997) theory highlights that discourse carries embedded power dynamics, social roles, and cultural norms that shape communication. In language teaching, discourse analysis provides students with tools to recognize and interpret these underlying elements, equipping them to understand language's social implications. This approach encourages students to move beyond surface-level comprehension, fostering critical awareness of language as a reflection of social structure and power relations.

## 2.5. Critical Discourse Analysis and Reflexivity

Fairclough (2003) supports the integration of discourse analysis as a means to develop students' critical thinking skills and self-reflection. By examining language in varied social contexts, students build the capacity to analyze language critically, understand implicit meanings, and assess the impact of language choices in real-life interactions. This critical discourse approach aligns with the objectives of ELT, where students develop the ability to navigate complex communicative situations with both linguistic precision and cultural insight.

## 3. Research Questions

The integration of discourse analysis in English language teaching has gained importance as teachers recognize its role in fostering students' communicative competence. Discourse analysis, which focuses on understanding language within social and contextual frameworks, equips students to interpret and participate effectively in real-world interactions. However, despite its value, incorporating discourse analysis into language curricula poses challenges, such as limited resources and the need for pedagogical strategies that reflect authentic communication practices. To explore these issues, this study addresses the following research questions:

1. How do English language teachers conceptualize and integrate discourse into their teaching practices, and what obstacles do they encounter?
2. What are teachers' perceptions of the impact of discourse analysis on students' communicative competence and ability to interpret language in diverse social contexts?

## 4. Methodology

This study utilizes a narrative inquiry methodology, a qualitative research design that examines the lived experiences of individuals through their personal narratives. Narrative inquiry is well-suited for comprehending

the intricacies of teaching practices and beliefs, since it enables participants to reflect on and express their experiences in a way that encapsulates the depth and subtleties of their professional life. Pandey (2022) asserted that "one of the goals of narrative research in English Language Teaching (ELT) is to increase understanding of central issues related to teaching and learning through the telling and retelling of teachers' stories" (p. 25). "the study of how different humans experience the world around them; it involves a methodology that allows people to tell the stories of their 'storied lives'" (p. 13). Gay, Mills, and Airasian define narrative research as "the study of how various individuals perceive their surroundings; it employs a methodology that enables individuals to articulate the narratives of their 'storied lives'" (p. 13). Clandinin and Connelly (2000, as cited in Pandey 2022, p. 26) assert that "narrative inquiry encapsulates the personal and human aspects of experience over time, while considering the interplay between individual experience and cultural context."

#### *4.1 Participants*

This study involves five university teachers, each with at least 10 years of experience in teaching Linguistics. They were chosen for their extensive expertise, which offers valuable insights into incorporating discourse into the English language teaching curriculum. Their long-standing engagement with linguistics makes them essential informants, capable of providing meaningful perspectives on the challenges and successes of teaching discourse.

#### *4.2 Data Collection*

The data collection involved in-depth interviews, facilitating a comprehensive exploration of each participant's narrative. The interviews were semi-structured, offering a discussion framework while permitting participants the freedom to express their experiences and viewpoints. This methodology is particularly advantageous for narrative inquiry, as it prompts participants to contemplate and convey their experiences in their own terms, resulting in profound insights into their conceptualizations and practices.

### **5. The Results**

Teachers perceive discourse as integral to language learning, viewing it as a means to prepare students for authentic, context-sensitive communication. This perspective aligns with Hymes's (1972) concept of communicative competence. The findings of the study present the integral role of discourse analysis in language teaching, highlighting its impact on both the educators' methodologies and students' communicative competencies. Firstly, it explores the perceived importance of discourse in language learning, highlighting its role in developing students' communicative competence. Secondly, it examines the strategies employed by educators to integrate discourse analysis into their teaching practices. Thirdly, it discusses how discourse serves as a tool for fostering cross-cultural competence. Additionally, the section addresses the integration of discourse with other language skills to enhance overall proficiency. Furthermore, it includes teachers' reflections on student outcomes and growth resulting from discourse-focused instruction. Lastly, it identifies the challenges teachers face when implementing discourse-based instruction.

#### *5.1. Conceptualizing Discourse Analysis*

The concept of discourse in language teaching has evolved to emphasize the role of language as a social tool for interaction, shaped by context, intention, and adaptability, rather than being limited to grammar and vocabulary. Participant 1 echoed this sentiment, describing discourse as "language in action, how we use words and phrases to actually communicate ideas, emotions, or instructions, going beyond mere sentence structures or vocabulary lists." For this teacher, discourse helps students "see language as more than just vocabulary or grammar" by emphasizing that "language has a purpose, depending on who you're talking to and what you want to achieve in that conversation." This perspective aligns with the communicative competence approach, where language is taught not only as a structural system but as a functional tool for achieving specific social and communicative goals. Hymes's (1972) theory of communicative competence further supports this understanding, asserting that

effective language use requires not just linguistic accuracy but also an understanding of social norms, context, and the ability to adapt language purposefully to varied situations.

In addition, discourse analysis supports a sociocultural approach to language learning, where language is seen as socially constructed and context-sensitive. Participant 2 highlighted this, viewing discourse as “the way language connects with the context it’s used in.” This teacher believes that discourse instruction “teaches students to become more aware of the choices they make in language use-like adjusting their tone or formality,” helping them understand that “language is flexible, shaped by the setting and people involved.” Gee (1999) further supports this perspective, explaining that discourse encompasses not only linguistic elements but also the “social and cultural functions” of language, enabling students to engage authentically in diverse communicative contexts (p. 34). This approach reflects the need for pragmatic competence, where students learn to adapt language to fit different social and cultural contexts, thereby enhancing their ability to communicate meaningfully and appropriately.

Finally, Participant 3 highlighted how discourse involves “turn-taking, managing conversations, and even the underlying meanings in what we say.” For this teacher, discourse skills equip students to “know what is appropriate in different situations and to respond accordingly,” underscoring discourse’s role in developing students’ interactional competence. This view aligns with van Dijk’s (1997) theory on the structure of discourse, which emphasizes the role of social conventions and communicative functions in shaping effective communication. Through discourse analysis, students gain the ability to navigate varied social settings by interpreting conversational cues and adjusting their responses accordingly, skills essential for achieving communicative fluency.

The perspectives of these teachers illustrate that they view discourse as an essential component of language learning, fostering students’ ability to use language adaptively and contextually. By integrating discourse analysis, educators enable students to approach language as a socially responsive, context-driven tool, preparing them for effective, real-world communication. This aligns with the goals of communicative language teaching, equipping students with not only linguistic skills but also the cultural insights necessary to communicate successfully across diverse social situations.

### *5.2. Perceived Importance of Discourse in Language Learning*

Discourse has emerged as a crucial aspect of language learning, recognized for its role in preparing students to use language as a context-sensitive, practical tool for real-world communication. Unlike traditional approaches focused solely on grammar and vocabulary, discourse analysis emphasizes how language functions in specific contexts, enabling students to adapt their language use for meaningful interactions. Three teacher participants shared their perspectives on the importance of discourse in language learning, illustrating its value in developing practical and adaptive communicative skills.

Participant 1 described discourse “critical in language learning because it teaches students how to use language in real situations, not just to pass exams or complete exercises, enabling them to know what to say and how to say it in a way that fits the moment.” This view aligns with Hymes’s (1972) concept of communicative competence, which emphasizes the need for adaptable and contextually appropriate language use rather than mere linguistic accuracy. By focusing on discourse as a means to prepare students for authentic, purpose-driven interactions, Participant 1 highlights its role in fostering flexible, real-world communication.

Building on this, Participant 2 explained that discourse instruction helps students shift from viewing language as a set of rules to seeing it as “a tool for expressing themselves in meaningful ways. This enables them to become more aware of their language choices, such as adjusting tone or formality.” They noted that discourse enables students to “become more aware of the choices they make in language use-like adjusting their tone or formality.” This perspective aligns with Gee’s (1999) argument that discourse involves navigating the social and cultural functions of language. By fostering pragmatic competence, discourse equips students to adapt their communication to suit different audiences and contexts, enabling meaningful and effective interactions.

Participant 3 emphasized the interactional dimension of discourse, highlighting how it trains students to “manage conversations, deal with misunderstandings, and even understand unspoken meanings.” This teacher described discourse as “making language learning practical,” a view that resonates with van Dijk’s (1997) theory of discourse as encompassing implicit social norms that guide interaction. By developing interactional competence, students learn to interpret conversational cues, navigate misunderstandings, and respond to unspoken signals, thereby enhancing their ability to engage in nuanced, real-life communication.

Together, these responses demonstrate that teachers view discourse as a foundational element of language learning, enabling students to see language as an adaptable tool for effective communication across diverse contexts. By integrating discourse analysis, educators foster an approach that is both practical and context-sensitive, aligning with the goals of communicative language teaching. Through discourse, students are prepared not only for linguistic accuracy but also for authentic, responsive engagement in various social settings.

### *5.3. Strategies for Teaching Discourse in the Classroom*

Teaching discourse in the language classroom involves strategies that extend beyond traditional grammar and vocabulary instruction, focusing on real-life, interactive language use that integrates both verbal and non-verbal communication. This approach is rooted in Vygotsky’s (1978) sociocultural theory, which emphasizes learning through social interaction and authentic experiences. Teachers aim to provide students with hands-on practice in conversational dynamics, context awareness, and social cues, equipping them with essential discourse skills for effective real-world communication.

Participant 1 described using “role-play activities where students act out real-life scenarios” as a way to make discourse learning “more authentic.” Through role-play, students practice key conversational strategies, such as “asking follow-up questions” and “using expressions to show they’re listening.” This method enables students to experience discourse as “language in action,” immersing them in realistic communication that builds confidence and adaptability. This perspective aligns with the sociocultural focus on learning through active engagement and context-driven interactions.

In addition to role-play, Participant 2 highlighted strategies that emphasize both verbal and non-verbal elements of communication. They explained how they “use video clips of natural conversations” to demonstrate how discourse extends beyond words, incorporating “body language, tone, and word choice.” This approach aligns with Gee’s (1999) discourse analysis framework, which underscores the importance of non-verbal cues in creating a holistic communicative event. By analyzing videos, students observe how language delivery varies with context, learning that “discourse is more than words; it’s about how those words are delivered.” This method fosters students’ ability to interpret pragmatic elements of language, enhancing their adaptability to social dynamics in communication.

Participant 3 added that they employ “group discussions on different topics” as a means of practicing discourse skills, particularly in managing interactions. During these discussions, students practice “turn-taking, responding to each other’s points, and keeping a conversation going,” engaging in real-time conversational dynamics. This strategy aligns with van Dijk’s (1997) theory of discourse as structured social practices, which include managing conversational flow and respecting participant contributions. By providing guiding questions but allowing students to “direct the conversation,” this approach fosters autonomy and interactional competence, enabling students to navigate spontaneous, unscripted discussions effectively.

Collectively, these strategies reflect a commitment to immersive, context-rich methods for teaching discourse, equipping students with practical skills to navigate language in diverse social contexts. By integrating role-play, video analysis, and group discussions, teachers create opportunities for students to experience discourse as a dynamic, interactive process. This approach aligns with Vygotsky’s emphasis on learning through interaction, Gee’s focus on the interplay of verbal and non-verbal communication, and van Dijk’s view of discourse as structured social practices. Together, these methods prepare students for meaningful, adaptable language use that

fosters both linguistic proficiency and cultural awareness, supporting the principles of communicative language teaching.

#### *5.4. Discourse as a Tool for Cross-cultural Competence*

In the context of language teaching, discourse is a vital tool for developing cross-cultural competence, enabling students to navigate the nuances of communication across diverse cultural settings. As Gee (1999) explains, discourse includes both linguistic and social norms that define effective communication within a cultural context. Teaching discourse with a cross-cultural focus helps students recognize how cultural backgrounds influence language use, fostering the skills needed to interpret and respond appropriately in multicultural interactions. Participant 1 emphasized this, stating, “When we teach discourse, we’re teaching students how language varies across cultures-like how politeness might look different, or how directness isn’t always appropriate.” This approach encourages students to understand that communication styles and language forms are shaped by cultural expectations, providing valuable insights into verbal expression and social interaction across cultures.

To cultivate cross-cultural awareness, teachers employ strategies that immerse students in cultural contexts. Participant 2 shared that they “use examples of conversations from different cultural backgrounds” to illustrate varying discourse patterns. Through these examples, students observe how cultural contexts shape language use, noting differences in elements such as “personal space, gestures, and even levels of formality.” This method aligns with van Dijk’s (1997) view of discourse as a reflection of social and cultural structures, equipping students to understand the cultural frameworks underlying communication. By analyzing cross-cultural discourse, students develop the ability to recognize culturally specific language cues, enhancing their capacity to navigate intercultural conversations with sensitivity and awareness.

Participant 3 highlighted the importance of teaching discourse as a way to foster adaptability, noting that students “need to be able to read the room and adjust their language based on who they’re speaking to and where they are.” This approach focuses on helping students understand how cultural expectations shape communication, aligning with Hymes’s (1972) theory of communicative competence, which emphasizes that language must be adaptable to social and cultural contexts. By learning to “read the room,” students practice recognizing context-dependent cues, such as when to use formal or informal language, how to interpret non-verbal signals, and how to manage turn-taking across cultures. This prepares students to adjust their language based on cultural norms, a critical skill for effective cross-cultural communication.

Collectively, these perspectives demonstrate that teachers view discourse as a cornerstone of cross-cultural competence, emphasizing that effective communication extends beyond grammar and vocabulary to include cultural understanding. By integrating culturally diverse examples and context-sensitive teaching strategies, educators equip students with the skills necessary to interpret and respond to language variations in multicultural settings. This approach aligns with the frameworks of Gee, van Dijk, and Hymes, combining insights into the social, cultural, and adaptive dimensions of discourse. Together, these strategies prepare students for effective, respectful communication across cultural boundaries, enhancing their overall communicative competence in a globalized world.

#### *5.5. Integration of Discourse with Other Language Skills*

Integrating discourse with other language skills is essential for fostering holistic communicative competence in students. In this approach, discourse analysis is combined with reading, writing, listening, and speaking activities, enabling students to understand how language functions as a connected, context-driven process. By blending discourse with these skills, teachers provide students with a more comprehensive understanding of language use, preparing them for authentic communication in real-world settings. Participant 1 noted the importance of connecting discourse with listening skills, stating, “I often encourage students to listen for tone and implied meanings during conversations, not just the words themselves.” This approach aligns with Gee’s (1999) view

that discourse involves interpreting subtle cues that add depth to communication. By integrating discourse with listening exercises, students learn to interpret context, understand speaker intent, and recognize underlying meanings, which are critical for effective interpersonal communication.

Additionally, teachers connect discourse with reading and writing skills to deepen students' understanding of language as a social practice. Participant 2 explained, "I integrate discourse analysis with reading activities, where students look for the author's intent and the way language choices affect the message." This strategy mirrors van Dijk's (1997) perspective on discourse as a tool for understanding how language is structured by social norms and communicative purposes. Through reading exercises that incorporate discourse analysis, students gain insight into how word choice, structure, and tone shape meaning. This method teaches students to critically analyze texts, fostering their ability to interpret nuanced messages and understand language's impact on readers, a skill essential for both reading comprehension and effective writing.

Participant 3 highlighted the connection between discourse and speaking practice, using it to build conversational competence. The teacher shared that they "use speaking activities that focus on how to manage conversations, such as when to pause, ask questions, or redirect the discussion." This practical approach aligns with Hymes's (1972) concept of communicative competence, where language learning includes the ability to adapt language for various social interactions. By combining discourse analysis with speaking practice, students develop skills like turn-taking, conversational management, and appropriate responses, preparing them to engage more effectively in diverse communicative contexts.

These strategies reflect an understanding that discourse is not an isolated skill but a foundational component that supports all areas of language learning. By integrating discourse with listening, reading, and speaking, teachers create a cohesive approach that equips students with the skills to interpret, produce, and respond to language authentically. This holistic integration aligns with communicative language teaching principles, providing students with a comprehensive skill set for meaningful, contextually aware communication.

### *5.6. Teachers' Reflections on Student Outcomes and Growth*

Teachers implementing discourse-focused strategies in the classroom often observe significant development in their students' communicative abilities, adaptability, and confidence. Reflecting on these outcomes, teachers perceive discourse as a valuable tool for fostering authentic language use that prepares students for real-world interaction. This approach aligns with the goals of communicative language teaching, where the objective is not merely linguistic accuracy but the capacity to use language meaningfully in diverse contexts. Participant 1 shared that students become "more confident in expressing their thoughts" and gain the skills to "respond appropriately in different situations," a shift that reflects growth in pragmatic competence. By engaging in discourse-rich activities, students learn to view language as an interactive tool, shaping both the way they communicate and their comfort in various social settings.

Teachers also noted improvements in students' ability to interpret and adapt to social cues, a key aspect of communicative competence. Participant 2 observed that students are "better able to pick up on non-verbal signals, like body language or tone, and adjust their responses," which they view as essential for meaningful interaction. This aligns with Gee's (1999) theory, which emphasizes that discourse competence includes interpreting non-verbal elements and context to communicate effectively. Participant 2 added that these skills enhance students' capacity to handle "unscripted interactions where they have to think on their feet," demonstrating growth in their ability to respond flexibly to spontaneous communication.

Participant 3 highlighted that discourse-based activities encourage students to "engage in deeper conversations and ask follow-up questions," reflecting growth in conversational skills and critical thinking. They noted that students become "more inquisitive and willing to explore topics beyond surface-level responses," demonstrating a deeper engagement with language and content. This outcome supports van Dijk's (1997) view that discourse involves both linguistic structures and the ability to manage interactional exchanges, where students gain the

skills to carry conversations and sustain engagement. By learning how to navigate discourse in complex interactions, students build critical competencies that extend beyond the classroom, preparing them to communicate effectively in various social and professional contexts.

Collectively, these reflections underscore teachers' perspectives on the positive outcomes of discourse-focused instruction. They observe that students' communicative competence, social awareness, and critical thinking skills are strengthened through activities that simulate real-world language use. By incorporating discourse-based teaching methods, teachers create a learning environment that fosters student growth in both language proficiency and social adaptability, equipping them with essential skills for navigating diverse communication scenarios.

### *5.7. Challenges of Implementing Discourse-Based Instruction*

Implementing discourse-based instruction in the language classroom comes with various challenges, as teachers must navigate limitations related to time, resources, and student engagement. Discourse-based instruction emphasizes language as a tool for social interaction, requiring authentic contexts and interactive practices that can be difficult to facilitate within conventional classroom constraints. Participant 1 expressed frustration with "limited class time to go beyond grammar and vocabulary," explaining that the demands of curriculum coverage often prevent in-depth focus on discourse skills. This perspective highlights a common challenge in language teaching: balancing required syllabus content with the more flexible, interactive methods necessary for discourse-based instruction. This issue aligns with van Lier's (1996) observation that the structure of traditional language classes often limits opportunities for authentic communicative practices, making it challenging for teachers to fully integrate discourse into the curriculum.

Another challenge lies in finding appropriate resources to support discourse-based instruction. Participant 2 noted that "access to authentic materials like videos or interactive tools is limited," which hinders their ability to provide students with real-life language examples. This difficulty underscores the importance of resources in discourse-based instruction, as authentic materials help students observe and analyze language in context. According to Ellis (2003), discourse learning is most effective when students can engage with authentic, context-rich materials that mirror real-world interactions. Without such resources, teachers are limited in their ability to demonstrate discourse components, such as tone, body language, and conversational flow, which are essential for developing communicative competence.

Student engagement also poses a significant challenge, especially in encouraging active participation in discourse activities. Participant 3 highlighted this by explaining that "students are often hesitant to participate in open-ended discussions," noting that many are accustomed to more structured, guided tasks. This reluctance reflects a broader issue in language classrooms, where students may feel uncomfortable with unscripted or spontaneous communication. This aligns with Swain's (2000) findings on learner interaction, where structured settings often lead to less anxiety, but they also limit opportunities for natural discourse. For teachers, encouraging students to engage fully in discourse-based activities requires building a classroom environment that supports risk-taking, where students feel comfortable participating in less structured communication.

Collectively, these challenges reveal the complexities of implementing discourse-based instruction in ELT. Limited time, lack of resources, and student hesitancy all impede teachers' efforts to focus on discourse. Despite these obstacles, teachers strive to balance curriculum requirements with the need for authentic interaction, adapting their strategies to foster a discourse-rich learning environment. These challenges reflect the need for institutional support and curriculum flexibility to create spaces where discourse can be a central component of language learning, preparing students for real-world communication in a way that extends beyond grammar and vocabulary instruction.

## **6. Discussion**

The importance of discourse in language learning has gained prominence in language pedagogy, emphasizing its role as a practical and adaptable tool for real-world communication. Rooted in Hymes's (1972) concept of

communicative competence, this approach highlights the need for language use that extends beyond grammatical accuracy, focusing on context-sensitive adaptation. Teachers increasingly view discourse as a means to prepare students for interactive and dynamic communication, equipping them to adjust language use based on their environment, audience, and purpose. Gee's (1999) perspective reinforces this, describing discourse as a social instrument that integrates verbal and non-verbal elements to navigate interactions effectively. Strategies like role-play, video analysis, and group discussions reflect Vygotsky's (1978) sociocultural theory, immersing students in realistic, context-rich activities that build confidence and adaptability. Through these methods, students learn to interpret social cues and manage conversational dynamics, aligning with van Dijk's (1997) theory of discourse as a structured social practice. The significance of discourse in language education is summed up in table 1 below:

Discourse also serves as a critical medium for fostering cross-cultural competence, helping students understand the cultural norms embedded in communication styles such as politeness, directness, and formality. Gee (1999) underscores the cultural dimension of discourse, while van Dijk (1997) highlights its connection to social and cultural structures. Teaching discourse with a cross-cultural focus enables students to navigate diverse interactions, enhancing their communicative competence through sensitivity and awareness of cultural differences. Despite its benefits, implementing discourse-based instruction poses challenges, including limited resources, restricted classroom time, and student hesitation in engaging with unscripted language use. However, by integrating discourse with other language skills and addressing these challenges, teachers provide students with a holistic approach to language learning that fosters linguistic proficiency, cultural adaptability, and critical thinking, preparing them for authentic and meaningful communication in diverse contexts.

## 7. Conclusions

Discourse in language studies enables learners to navigate language in authentic and contextually appropriate ways. This study explored teachers' perspectives on integrating discourse into English language teaching to enhance communicative competence. It aimed to understand how teachers conceptualize and implement discourse strategies, the perceived impact of these strategies on students' language proficiency, and the challenges encountered. Using a narrative inquiry approach, insights were drawn from in-depth interviews with experienced university teachers. The findings highlighted the importance of discourse in fostering context-sensitive communication, critical thinking, and cross-cultural competence. Teachers employed strategies such as role-playing, video analysis, and group discussions to create authentic communicative scenarios, enabling students to develop adaptability and pragmatic awareness. However, challenges such as limited resources, insufficient instructional time, and varying levels of student engagement were identified as obstacles to fully integrating discourse into teaching practices. This study contributes to the theoretical understanding of communicative competence and sociocultural learning by illustrating how discourse-based teaching bridges linguistic knowledge and practical communication skills. It emphasizes the need to integrate discourse into language curricula to prepare learners for real-world communication. Practically, the findings call for greater institutional support, including resource allocation and teacher training, to address the challenges of implementing discourse-rich teaching methods. While the study is limited to a small sample of university educators, future research could explore the impact of discourse-based teaching across diverse educational levels and contexts.

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# Advancing Efficiency, Transparency, and Accuracy of Digital Quality Assurance Systems in Higher Education

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## Abstract

The digitization of quality assurance systems in higher education is a critical innovation that enhances efficiency, transparency, and accuracy in ensuring educational quality. This study investigates the implementation and impact of a digitized quality assurance system at the Professional Education and Certification Institute (LPSP) of the State University of Surabaya. The research utilizes a mixed-method approach, combining surveys, semi-structured interviews, document analysis, and observations to gather comprehensive data from 120 respondents, including leaders, staff, faculty, students, and university administrators. Findings reveal that digitization significantly improved efficiency by streamlining workflows and reducing task completion times by up to 70%. The accuracy of data handling increased, with a 30% reduction in errors, while the transparency of processes was enhanced through real-time analytics and shared access to quality assurance metrics. Despite these advancements, challenges such as initial user adaptation, infrastructure limitations, and data privacy concerns were identified. Additionally, some faculty members expressed concerns about reduced personalization in decision-making due to increased reliance on automation. This study highlights the transformative potential of digital quality assurance systems in addressing inefficiencies and enhancing accountability in higher education. Recommendations for improvement include enhanced training programs, infrastructure upgrades, and the development of mobile-friendly interfaces to increase accessibility. The findings contribute to the growing body of knowledge on digital transformation in education and provide actionable insights for institutions seeking to implement similar systems. By balancing automation with human oversight, higher education institutions can ensure sustainable improvements in quality assurance processes.

**Keywords:** Digitization, Quality Assurance, Higher Education, Efficiency, Transparency, State University of Surabaya

## 1. Introduction

The education sector is confronted with enormous hurdles in maintaining the quality of education provided in this age of fast technological innovation and globalization. Quality assurance in education has become a critical focus, serving not only as a mechanism of accountability to stakeholders but also as a means to enhance the quality of teaching and learning (Rosa et al., 2012). In this context, the digitization of quality assurance processes and systems has emerged as a crucial innovation. Information and communication technology has revolutionized how educational institutions manage and deliver education. The adoption of digital tools, including learning

management systems, data analytics, and collaborative platforms, offers the transformative potential to improve the efficiency, accuracy, and transparency of quality assurance practices.

Improving the efficiency, accuracy, and transparency of quality assurance practices is crucial for ensuring that educational institutions meet the evolving demands of stakeholders while maintaining high standards of accountability. Efficient quality assurance processes reduce the administrative burden on staff, freeing resources and time that can be redirected toward core academic and developmental activities. By streamlining workflows, institutions can more effectively monitor compliance with educational standards, respond to areas requiring improvement, and implement corrective measures in a timely manner. Furthermore, accuracy in quality assurance practices ensures that data-driven decisions are based on reliable and precise information. This minimizes the risk of errors that could compromise the credibility of the institution or negatively impact stakeholders, including students, faculty, and external accrediting bodies (Syukur et al., 2023).

Transparency, meanwhile, fosters trust and confidence among stakeholders by making quality assurance practices visible and understandable. Transparent processes enable institutions to demonstrate their commitment to excellence and accountability, providing clear evidence of how decisions are made and how educational standards are upheld. For students, this translates into confidence that their learning environment meets rigorous quality benchmarks. For faculty, it ensures a fair and equitable assessment of their contributions. For external stakeholders such as employers and accrediting agencies, transparency underscores the institution's reliability and integrity. In sum, improving efficiency, accuracy, and transparency in quality assurance not only enhances institutional credibility but also directly contributes to the overall quality of education and the equitable treatment of all stakeholders (Psomas & Antony, 2017).

Meanwhile, the digitization of quality assurance processes represents a significant shift in how institutions ensure and maintain educational quality standards. This transformation involves leveraging digital technologies to design, implement, and monitor various aspects of quality assurance, such as curriculum development, teaching methodologies, assessments, and student services (Dutta et al., 2021). Through digitization, institutions can collect and analyze data more effectively, enabling data-driven and responsive decision-making. Digital quality assurance systems allow for continuous monitoring of academic and administrative performance, facilitate the identification of areas requiring improvement, and support the development of targeted enhancement strategies.

The Freedom to Learn-Independent Campus Curriculum, also known as Kurikulum Merdeka Belajar Kampus Merdeka (MBKM), is causing a radical change in Indonesia's educational system. This curriculum emphasizes flexibility, interdisciplinary learning, and real-world relevance, allowing students to tailor their educational pathways according to their interests and career aspirations. The implementation of MBKM represents a bold move toward fostering creativity, innovation, and lifelong learning skills, but it also introduces complexity in ensuring consistent quality across diverse programs. This transformation necessitates the adoption of digital technologies to design, implement, and monitor quality assurance processes that align with MBKM's objectives. In curriculum development, digital technologies enable institutions to create and adapt programs that reflect MBKM's core principles, such as cross-disciplinary learning and the integration of industry-relevant competencies. Online platforms allow collaborative input from educators, industry experts, and policymakers, ensuring that the curriculum remains dynamic and responsive to societal needs. Moreover, data analytics tools can assess the effectiveness of curriculum changes by analyzing trends in student performance and feedback, which is crucial for maintaining alignment with MBKM's goals (Amalia et al., 2018).

Teaching methodologies under MBKM emphasize experiential and project-based learning, where students gain practical experience through internships, community projects, and entrepreneurial activities. Digital technologies facilitate these methodologies by providing platforms for virtual internships, online project management tools, and collaborative spaces for interdisciplinary learning (Perrin & Wang, 2021). Such tools support the flexibility and student agency that MBKM champions while enabling institutions to track and evaluate the quality of these diverse learning experiences.

Assessment practices within MBKM focus on competency-based evaluations that measure not only academic knowledge but also practical skills, creativity, and problem-solving abilities (Farida et al., 2019). Digital assessment tools allow for more accurate, consistent, and scalable evaluations across different programs and institutions. Real-time data collection and analysis also enable adaptive assessments that provide immediate feedback to students, helping them identify areas for improvement and align their learning with their goals (Chassin et al., 2010).

Student services are another critical component of quality assurance under MBKM. With the curriculum's emphasis on student independence and real-world engagement, institutions must provide robust support systems to guide students through their educational journeys. Digital technologies enhance these services by streamlining administrative processes, offering personalized academic advising, and providing platforms for tracking student achievements in internships and other off-campus activities (Ryan, 2015).

By leveraging digital technologies in these areas, Indonesia can effectively implement and monitor the Kurikulum MBKM, ensuring that its ambitious goals are met without compromising quality or equity. This integration of technology into quality assurance processes not only supports the flexibility and innovation inherent in MBKM but also addresses the challenges of managing a decentralized and diverse education system (Goericke, 2020). As a result, digital transformation becomes a critical enabler in realizing MBKM's vision of producing graduates who are adaptive, skilled, and ready to contribute meaningfully to the global economy.

Furthermore, the implementation of digital technologies further extends the capacity of institutions to conduct objective and transparent assessments. Advanced analytical tools and learning management systems provide real-time metrics on performance indicators such as student engagement, learning progress, and teaching effectiveness. These capabilities allow institutions to adapt their teaching approaches and curricula dynamically based on feedback and outcomes. Moreover, digitization ensures consistency and standardization in assessment processes, which is essential for maintaining academic integrity and equity for all learners (Elbadiansyah & Masyni, 2021).

Despite its potential, transitioning to fully digitized quality assurance systems presents several challenges (Lubis & Daryanto, 2019). Institutions face the need for significant investment in technological infrastructure, alongside comprehensive training for staff and faculty to ensure effective system utilization. Concerns regarding data security and privacy add complexity, particularly in protecting sensitive student and staff information. On top of that, achieving a balance between the efficiency of technology and the human-centric nature of education is crucial to ensuring that digitalization supports rather than replaces the personal interactions that are central to teaching and learning.

Building on these premises, this study focuses on the implementation of digitized quality assurance systems at the Professional Education and Certification Institute (LPSP) of the State University of Surabaya. Specifically, the research investigates the impact of digitization on the effectiveness of quality assurance processes, including aspects such as assessment accuracy, process transparency, and student engagement. Additionally, the study identifies the barriers and challenges faced by educational institutions in adopting digital technologies for quality assurance, such as infrastructure limitations, staff training, and resistance to change (Elbadiansyah & Masyni, 2022).

By addressing these challenges, this research aims to provide actionable insights into best practices and strategies for implementing digitization in quality assurance systems. The study contributes to the broader discourse on integrating information technology with educational quality assurance, an area that remains underexplored despite the increasing adoption of digital tools in education. This research is state of the art as it delves into the application of specific digital tools—such as learning management systems and data analytics—in enhancing quality assurance processes. The findings are expected to inform policymakers, education practitioners, and other stakeholders, offering guidance for successfully navigating the social and ethical considerations of digitalization while ensuring high-quality education delivery.

### *1.1 The Research Problem*

To address the challenges and opportunities associated with the digitization of quality assurance systems, this study seeks to explore the current state, implementation process, and impact of digital transformation within the institution. By examining the integration of digital technologies in key aspects of quality assurance—such as curriculum development, teaching methodologies, assessment practices, and student services—this research aims to provide a comprehensive understanding of the effectiveness, efficiency, and transparency of these systems. Furthermore, it seeks to identify the obstacles encountered during implementation and develop actionable recommendations to enhance the digitization process.

Based on these objectives, the research is guided by the following questions:

1. What are the existing conditions of the processes and quality assurance systems at the institution prior to the implementation of digitization?
2. How is the digitization process implemented in the quality assurance system?
3. What technologies and software are utilized in the digitization of the quality assurance system?
4. What are the challenges and obstacles faced by the LPSP at the State University of Surabaya during the digitization process of quality assurance?
5. What is the impact of digitization on the efficiency and effectiveness of quality assurance processes at the institution?
6. What recommendations can be made to improve the implementation of digitization in the quality assurance system at the institution?

## **2. Method**

### *2.1 Research Design*

This study employs a mixed-method approach, combining qualitative and quantitative techniques to comprehensively investigate the digitization of quality assurance processes at the institution. Quantitative methods are utilized to gather numerical data on user satisfaction and system performance through surveys, while qualitative methods, including interviews and document analysis, explore in-depth perspectives on the implementation and challenges of digitization (Creswell, 2014).

### *2.2 Research Objects*

The object of this research consists of individuals or groups directly involved with or impacted by the digitization of quality assurance processes at the institution. These include key stakeholders such as LPSP staff members, leadership, faculty members, students, and other university administrators. Additionally, external stakeholders who interact with the outputs of the quality assurance system, such as accreditation bodies or industry partners, may also be considered.

The institution staff members, including those managing quality assurance processes, form the primary group of respondents, as they are directly responsible for implementing and utilizing the digitized system. Their insights provide critical data on the operational efficiency and user experience of the new system. The leadership team at LPSP is also included to gather information on strategic decision-making, resource allocation, and their perception of digitization's impact on institutional goals.

Faculty members and students, as indirect users or beneficiaries of the system, are vital objects of the study. Faculty members contribute perspectives on how the digitized system aligns with academic standards and administrative workflows, while students offer feedback on the perceived impact on their educational experience. Other university administrators who collaborate with LPSP in quality assurance processes also serve as important respondents to assess inter-departmental integration and system effectiveness.

Including these diverse groups ensures a holistic understanding of the digitization process, capturing both operational and strategic dimensions. The insights gathered will help evaluate the system's performance, identify challenges, and develop actionable recommendations for improving digital quality assurance implementation at the institution.

### *2.3 Data Collection Instruments*

Data are collected using multiple instruments to ensure comprehensive analysis. Surveys are designed to assess user satisfaction, system usability, and perceived impacts of digitization. Semi-structured interview guides are employed to explore detailed experiences and perceptions of key stakeholders, including staff and leadership. Document analysis is conducted on pre-existing quality assurance reports, manuals, and digitization plans to understand baseline conditions and track improvements. Observations of system usage further enrich the data, offering real-time insights into operational workflows.

### *2.4 Data Analysis*

Quantitative data from surveys are analyzed using statistical techniques, including descriptive analysis, correlation analysis, and regression analysis, to identify patterns and measure the system's impact. Qualitative data from interviews and document reviews are subjected to thematic analysis, enabling the identification of key themes and insights. Triangulation of data from multiple sources ensures validity and reliability in the findings, providing a comprehensive understanding of the digitization process (Creswell & Creswell, 2017).

### *2.5 Research Duration*

The research is conducted over a period of six months (February-July of the year 2024), encompassing stages of preparation, data collection, analysis, and reporting. The timeline includes one month for preparation and instrument design, two months for data collection, two months for data analysis, and one month for finalizing and disseminating the research findings.

### *2.6 Research Location*

The study is conducted at the Professional Education and Certification Institute (LPSP) of the State University of Surabaya. This location includes its core units, such as the Training Center, Recognition of Prior Learning Center, Professional Certification Center, Language Center, and Confucius Institute, which are integral to the quality assurance processes being digitized. These centers provide a rich context for exploring the implementation and impact of the digital quality assurance system.

## **3. Results**

This study aimed to evaluate the digitization of quality assurance processes at the institution. The findings are presented based on data collected from surveys, semi-structured interviews, document analysis, and observations of system usage. The respondents included ten leaders, 25 staff members, 25 faculty members, 50 students, and ten university administrators, ensuring a comprehensive perspective on the implementation and impact of the digital quality assurance system.

### *3.1 User Satisfaction and System Usability*

The survey results indicated an overall high level of satisfaction with the digitized quality assurance system, with a mean satisfaction score of 4.7 out of 5 across all user groups. Leaders and staff particularly praised the system's ability to streamline workflows and improve data accessibility. Among the respondents, 94% reported that the system had significantly improved their ability to complete quality assurance tasks efficiently. However, 6% of respondents, primarily students and some staff members expressed challenges with navigating specific system features due to limited prior exposure to similar platforms.

System usability was rated positively, with 92% of users agreeing that the system was intuitive. Nevertheless, interviews revealed that 15% of staff initially struggled with the transition from manual to digital workflows, citing the need for more comprehensive training. Students highlighted the platform's lack of mobile accessibility as a notable drawback, which hindered their ability to engage with the system effectively on the go.

### 3.2 Baseline Conditions and Improvements

Document analysis of pre-existing quality assurance reports and operational workflows revealed significant inefficiencies in the manual processes. Tasks such as compiling accreditation reports were labor-intensive, often requiring up to three weeks to complete due to fragmented documentation and manual data aggregation. After digitization, the time required for these tasks was reduced by approximately 60%, with improved data accuracy and consistency.

Digitization also addressed long-standing issues in tracking compliance with accreditation standards. Observations of the system in use demonstrated that automated reporting features and dashboard analytics provided real-time insights, allowing leaders to identify areas needing improvement more efficiently.

### 3.3 Impacts of Digitization on Quality Assurance Processes

This table summarizes the measurable improvements achieved through digitization in efficiency, accuracy, transparency, decision-making, and user engagement while highlighting areas requiring further development, such as student accessibility and involvement.

Table 1: Impacts of Digitization on Quality Assurance Processes

Aspect	Before Digitization	After Digitization	Improvement
<b>Efficiency</b>	Tasks such as compiling accreditation reports took up to three weeks due to fragmented workflows.	Routine tasks are completed 40–70% faster, with automated reporting reducing the time needed for data aggregation.	Significant reduction in time required for tasks.
<b>Accuracy</b>	Data inconsistencies were common due to manual data entry and fragmented documentation systems.	Automated processes reduced errors by 30%, improving the consistency and reliability of quality assurance metrics.	Enhanced data accuracy and reliability.
<b>Transparency</b>	Limited access to documents and metrics created challenges in collaborative decision-making.	Shared access to documents and real-time dashboards facilitated transparency and accountability among stakeholders.	Improved collaboration and trust.
<b>Decision-Making</b>	Decision-making relied on delayed and incomplete data, limiting responsiveness to quality issues.	Real-time analytics and reporting enabled leaders and administrators to make faster, data-driven decisions.	More responsive and informed decisions.
<b>User Engagement</b>	Staff and faculty engagement with quality assurance processes was limited due to inefficiencies.	Increased engagement among staff and faculty due to streamlined workflows and easier access to relevant metrics.	Enhanced participation in quality assurance.
<b>Student Experience</b>	Minimal involvement in quality assurance processes; feedback was rarely incorporated effectively.	Greater involvement through real-time feedback tools, though accessibility issues (e.g., mobile use) limited engagement.	Moderate improvement, with areas for growth.

### 3.4 Challenges and Unexpected Findings

This table outlines the challenges and unexpected findings encountered during the digitization process, their impacts on stakeholders, and actionable suggestions to address these issues for future improvements.

Table 2: Challenges and Unexpected Findings

Category	Description	Impact	Suggested Mitigation
<b>Training Needs</b>	25% of respondents reported difficulties adapting to the digital system due to limited prior technology use.	Slower adoption and suboptimal utilization of the system in the early phases.	Conduct regular training sessions and provide on-demand tutorials for all user groups.
<b>Infrastructure Gaps</b>	Limited internet bandwidth and outdated hardware in certain areas hindered seamless access to the system.	Delays in system use, particularly for off-campus users or those in remote locations.	Invest in infrastructure upgrades, including enhanced internet connectivity and modern hardware.
<b>Data Privacy Concerns</b>	Gaps in cybersecurity protocols raised concerns about the protection of sensitive student and institutional data.	Potential risk of data breaches, impacting stakeholder trust.	Strengthen cybersecurity measures, including encrypted data storage and regular system audits.
<b>System Complexity</b>	Some users (8%) found the system overly complex, making it difficult to navigate certain features.	Reduced efficiency for specific user groups, particularly students and new staff.	Simplify user interface design and offer role-specific customization options.
<b>Resistance to Change</b>	A small proportion of staff and faculty expressed skepticism about the effectiveness of digitized processes.	Initial resistance delayed the full-scale adoption of the system.	Engage stakeholders early, emphasizing system benefits and gathering user feedback during deployment.
<b>Balancing Automation with Personalization</b>	10% of faculty members expressed concern that automated processes reduced opportunities for personalized decision-making.	The perception that the system prioritizes efficiency over nuanced, context-sensitive decisions.	Integrate customizable features that allow users to override or tailor automated processes.
<b>Student Accessibility</b>	Students reported challenges accessing the system on mobile devices, limiting engagement with certain features.	Reduced participation and slower adoption among the student body.	Develop a mobile-friendly version of the platform to increase accessibility for students.

### 3.5 Statistical Nonsignificant Findings

While significant improvements were observed in efficiency and accuracy metrics, the impact on user engagement varied across groups. For example, while staff and leaders showed a statistically significant increase in system engagement ( $p < 0.05$ ), student engagement exhibited no statistically significant change ( $p = 0.08$ ). This result highlights the importance of tailoring system features to meet the diverse needs of all user groups, including students.

### 3.6 Recommendations for Improvement

This table provides actionable recommendations for improving the digitized quality assurance system, ensuring greater efficiency, usability, and stakeholder satisfaction.



Table 3: Recommendations for Improvement

Category	Recommendation	Expected Outcome
<b>Training Programs</b>	Conduct regular and inclusive training sessions tailored to specific user groups (staff, faculty, students).	Enhanced user competency and confidence in utilizing the system effectively.
<b>Infrastructure Upgrades</b>	Invest in modern hardware and improved internet connectivity, especially in remote or off-campus locations.	Seamless access to the system and improved performance for all users.
<b>Mobile Accessibility</b>	Develop and optimize a mobile-friendly version of the system for better access on smartphones and tablets.	Increased engagement and participation, particularly among students and on-the-go users.
<b>Cybersecurity Measures</b>	Strengthen data privacy and security protocols, including encryption, regular audits, and user education.	Increased stakeholder trust and reduced risk of data breaches.
<b>Simplified User Interface</b>	Redesign the system interface to make it more intuitive and customizable based on user roles and needs.	Improved usability, reducing complexity for users unfamiliar with advanced digital systems.
<b>Stakeholder Engagement</b>	Involve stakeholders early in system development and gather feedback during implementation.	Increased buy-in, smoother adoption, and a system better aligned with user expectations.
<b>Customization Options</b>	Introduce features that allow users to personalize or override automated processes where necessary.	Balance between automation and the need for nuanced, context-sensitive decision-making.
<b>Performance Monitoring</b>	Implement regular system performance reviews to identify and address technical issues promptly.	Improved system reliability and user satisfaction through proactive maintenance and updates.
<b>User Support Services</b>	Establish dedicated support channels for real-time issue resolution, such as a help desk or online chat.	Reduced downtime and quicker resolution of user challenges.

#### 4. Discussion

This study evaluated the digitization of quality assurance processes at the Professional Education and Certification Institute (LPSP) of the State University of Surabaya. The findings demonstrate significant improvements in efficiency, accuracy, and transparency following the adoption of digital systems while also highlighting challenges and areas for enhancement. The discussion provides an in-depth interpretation of the results, their implications for the institution, and their broader relevance to higher education.

The results indicate that digitization substantially improved the efficiency of quality assurance processes. Tasks that previously required weeks to complete were streamlined through automation, reducing completion times by up to 70%. Automated reporting and real-time analytics eliminated the inefficiencies of manual data aggregation, enabling faster and more informed decision-making. These findings align with previous research emphasizing the potential of digital technologies to optimize administrative workflows in higher education (Biancarosa & Griffiths, 2012).

Despite these gains, the study revealed a learning curve among some users during the transition to the new system. Approximately 25% of staff reported initial difficulties adapting to the digital platform, underscoring the need for comprehensive training programs. This challenge is consistent with literature suggesting that user preparedness is a critical factor in successful digital transformations.

The transition from manual to digital processes significantly reduced data inconsistencies, with a reported 30% decrease in errors. Automated data entry and reporting features enhanced the reliability of quality assurance metrics, which is essential for compliance with accreditation standards and institutional accountability. Moreover,

the system improved transparency by providing shared access to reports and dashboards, facilitating collaborative decision-making across stakeholder groups (Bayne & Jandrić, 2017).

These findings reflect broader trends in the adoption of digital technologies for quality assurance. However, the study identified areas where transparency could be further improved, particularly for students, who reported limited access to certain features due to mobile compatibility issues (Memarian & Doleck, 2023). Addressing these concerns through enhanced system design could further align the system with principles of inclusivity and equity (Ramírez & Tejada, 2018).

The study highlighted several challenges during the implementation of digitization. Infrastructure limitations, such as inadequate internet bandwidth and outdated hardware, hindered the system's seamless adoption, particularly in remote or off-campus settings. Data privacy concerns also emerged as a critical issue, with leaders emphasizing the need for robust cybersecurity measures to protect sensitive information.

Another unexpected finding was the tension between automation and personalization. While automated processes improved efficiency, some faculty members expressed concerns about reduced opportunities for nuanced, context-sensitive decision-making. This underscores the importance of balancing technological efficiency with human oversight to maintain the integrity of educational processes.

User satisfaction with the digital system was generally high, with an average score of 4.7 out of 5. Leaders and staff reported significant benefits in terms of usability and time savings, while students appreciated increased access to resources and feedback mechanisms. However, a minority of users—particularly students—reported challenges related to system navigation and accessibility. These findings suggest that while the system meets the needs of most users, targeted improvements are necessary to ensure inclusivity and engagement for all stakeholder groups.

The findings have important theoretical and practical implications. Theoretically, they contribute to the growing body of literature on digital transformation in higher education by providing evidence of its impact on quality assurance processes. The study reinforces theories of organizational change, highlighting the need for capacity-building and stakeholder engagement to ensure the successful adoption of digital systems.

Practically, the study offers actionable insights for institutions seeking to digitize their quality assurance processes. Recommendations such as infrastructure upgrades, enhanced training programs, and mobile-friendly design can guide implementation strategies. The findings also underscore the importance of balancing technological automation with opportunities for human input, ensuring that digitization supports rather than replaces critical decision-making processes.

While the study provides valuable insights, it has certain limitations. While comprehensive within the institution, the sample size may not fully capture the diversity of experiences across different institutional contexts. Additionally, the study primarily focused on short-term impacts, leaving room for future research on digital quality assurance systems' long-term sustainability and scalability.

Future studies could explore integrating advanced technologies, such as artificial intelligence and machine learning, to enhance quality assurance processes further. Comparative studies across institutions with varying levels of digital maturity would also provide a broader understanding of best practices and challenges in digital transformation.

#### **4. Conclusion**

The digitization of quality assurance processes at the institution has delivered measurable improvements in efficiency, accuracy, and transparency, demonstrating its potential as a model for other institutions. However, challenges such as infrastructure limitations, user adaptation, and balancing automation with personalization highlight the complexity of implementing digital systems in higher education. By addressing these challenges and

building on the recommendations provided, institutions can leverage digitization to achieve sustainable educational quality and accountability improvements. This study underscores the transformative potential of digital technologies while emphasizing the need for thoughtful and inclusive implementation strategies.

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# Training Needs of Educators in Nursery and Preschool Centers

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## Abstract

The training of educators in Municipal Nursery and Preschool Centers in our country is more of a hope than a reality. The lack of an official institutional framework for training has contributed to the search for professional development based on the individual initiative of educators, without state support. The training needs of educators remain an uncharted area, and very few studies have addressed the issue of educators' training needs, which is the research goal of this paper. Specifically, this study investigates the training needs of educators in the Municipal Nursery and Preschool Centers of Kalamata as a case study. Adopting a qualitative approach, the study explores the problems faced by educators in their work to identify their training needs. Using semi-structured interviews as a research tool to collect data, the needs of thirteen educators from various specialties (Kindergarten Teachers, Preschool Nurses, and Preschool Assistant Nurses) were examined, selected through convenience sampling. The thematic analysis method was employed to analyze the data. The research results reveal that educators primarily identify problems in dealing with children with developmental disorders, communication with children who speak a different mother tongue, and cooperation with children's parents, while trying to address these problems on their own or by turning to colleagues. Their training needs stem from deficiencies in their basic education, as well as from problems they face in their pedagogical work. These needs are also influenced by the age of the children in their group and their years of experience.

**Keywords:** Training Needs, Educators in Nursery and Preschool Centers

## 1. Introduction

Since their establishment, Nursery and Preschool Centers have been tasked with fulfilling a dual role: the care and education of young children as well as the support of working parents. It is a well-established fact that young children learn and develop their abilities through interaction with the adults who care for them. The responsiveness of adults to the needs of young children also affects the quality of care they receive. The educational staff in Preschool and Nursery Centers (P&NC) is required to respond to this demanding and challenging task, which involves educating and caring for preschool-aged children up to their enrollment in compulsory education

(Kindergarten). Specifically, educators ensure the holistic development of children and address their developmental and learning needs. Therefore, they must be well-trained to provide high-quality preschool education and care services while also developing professionally.

It is widely acknowledged that the educational qualifications of teachers, i.e., the level of their basic education, are not sufficient to meet all the challenges they will face in their profession (OECD, 2009). The same applies to the educators in Preschool and Nursery Centers. A key role in the updating and renewal of the knowledge and skills of educators is their ongoing professional development. In the international literature, the professional development of educators has been linked to the quality of early childhood education and care provided (European Commission, 2014; Fukkink & Lont, 2007; OECD, 2018). However, in our country, beyond the basic education that educators in P&NC have, there is no institutional framework for professional development, as is the case in other education levels. Furthermore, research has shown that the effectiveness of professional development is greater when it meets the characteristics and professional development needs of educators (Bowman, Donovan & Burns, 2001; Gardner-Neblett et al., 2020; Mitchell & Cubay, 2003; Mitter & Putcha, 2018).

In Greece, however, empirical research on the professional development needs of educators is scarce and remains an area that needs exploration. This topic is the subject of research for this study. Specifically, this study aims to investigate the professional development needs of the educators working in the Preschool and Nursery Centers of the Municipality of Kalamata.

## **2.The Concept of Educational Needs in the Context of Adult Education**

To define the concept of educational need, it is essential to distinguish it from related concepts. Vergidis (2008, p. 27) clarifies that need should not be confused with necessity, desire, or demand. Necessity refers to needs imposed without question, desire to personal wants, and demand to the economic principle of supply and demand. McCaslin & Tibenzida (1998) distinguish need from "wants" and interest, where desire is related to individual wants, and interest to personal concerns. Wilson & Easen (1995, p. 275) emphasize that "wants" stem from intuition, whereas needs are a requirement due to deficiencies in the educator.

Need is often defined as the gap between the present and desired state (Gupta, 2007), with Leagans (1964, p. 92) likening it to the difference between "what is" and "what ought to be." Scriven & Roth (1978, p. 3) define need as the gap between the actual and satisfactory, emphasizing adequacy. Similarly, Sava (2012, p. 28) views need as the difference between the current and desired state, linked to the context that created it.

Educational need, specifically, is defined as the lack or difference in knowledge, skills, or attitudes necessary for achieving a desired state, and can be satisfied through learning. Ellis (1968, cited in Saraswathi, 1969, p. 20) identifies four characteristics of educational needs: they must be necessary, lacking, claim valid action, and be addressed through learning. Monette (1977, p. 119) views educational needs as something that can be met through learning experiences. Chasapis (2000, p. 32) similarly defines educational need as the gap between what is necessary and what is available in terms of knowledge, skills, and attitudes.

Sava (2012) adds that viewing need only as a gap may focus too much on learners' weaknesses, whereas it could also motivate learners to set higher goals. Knowles (1980) defines educational need as the gap between current and required ability, important for performance, and stresses that self-assessment by adult learners is crucial in identifying their needs (Knowles, Holton, & Swanson, 2011). Ayers (2010, p. 343) notes the debate over whether learners can objectively identify their own needs, raising the question of who is best suited to recognize them (Monette, 1977).

Educational needs are categorized in the literature into types like "felt," "unfelt," "real," "subjective," "objective," "expressed," "emergent," and "normative" (Leagans, 1964; Pearce, 1995; Sava, 2012; Ayers, 2011). Vergidis (2008, p. 32-33) identifies two dimensions: subjective (individual awareness of deficiencies) and objective (externally imposed changes). He categorizes educational needs into conscious and explicit, conscious but not

explicit, and latent/unconscious (Vergidis, 2008). This categorization influences the methods used to investigate educational needs in adult education programs.

### *2.1. The Concept of Investigating Educational Needs in the Design of Adult Education Programs*

Investigation of educational needs is defined as the research process of identifying the educational needs of one or more individuals through the collection and analysis of information (Kapsalis & Papastamatis, 2000, p. 29).

According to Vergidis (2008), depending on the type of educational needs, the method of investigation is selected. If the needs of a target population are considered to be conscious and explicit, the quantitative research method is deemed most appropriate. In this case, the descriptive sampling method is typically used, with questionnaires or structured interviews and the application of statistical methods for analyzing the results. When the needs are considered to be implicit or latent, the qualitative research method is more suitable. For data collection in the qualitative approach to investigating needs, methods such as observation (participatory or non-participatory) and interviews (individual or group) are usually used. However, since the needs of a population do not fall exclusively into the categories of conscious and explicit or implicit and latent, a multi-method approach is recommended for the investigation. The use of multiple methods for investigating needs (Triangulation) leads to more reliable results and thus a more effective design of educational programs (Vergidis, 2008). Specifically, for the investigation of latent educational needs, Vergidis (2012).

### *2.2. Role of Investigating Educational Needs in Adapting and Implementing Training Programs*

Investigating educational needs is crucial for the design and implementation of training programs, as it ensures that the content and methods of instruction are tailored to the actual needs of the participants. According to Kapsalis and Papastamatis (2000), understanding the needs of learners helps identify gaps in their knowledge and skills, allowing for the development of programs that are truly useful and effective.

The need for ongoing assessment of training needs becomes even more pressing in continuous adult education programs, where participants may come from diverse professional fields and have different levels of education and experience. The success of the program depends on its ability to address the varied needs of these participants, as well as its capacity to recognize and incorporate their different preferences and learning requirements.

Vergidis (2008) emphasizes that the investigation of needs must be a dynamic process that adapts to changes and developments in educational needs throughout the program's implementation. This requires regular review and adjustment of the program to ensure it remains effective and relevant. Furthermore, using methods such as analyzing data from training outcomes and feedback from participants can provide valuable insights for further improving the program.

The involvement of learners in the process of investigating needs is also critical to the program's success, as it enhances their sense of ownership and active engagement, leading to better learning outcomes and greater satisfaction.

### *2.3. The Importance of Investigating the Training Needs of Teachers and Educators as a Prerequisite for Effective Training*

According to Vergidis (2008), investigating educational needs is crucial in designing adult education programs. The investigation guides the identification of educational goals, objectives, and content, ensuring that the program meets participants' needs. By addressing these needs, the program enhances participant involvement and its overall success. Similarly, effective teacher training depends on aligning it with teachers' needs, expectations, and challenges (Matsagoura, 2005, as cited in Andris, 2016). Papastamatis et al. (2009) argue that teachers should be involved in designing training programs to ensure they meet their real needs. They highlight that failure to address these needs is a major flaw in Greek training initiatives, as also noted by Katsarou and Dedouli (2008), who emphasize the interdependence between needs investigation and the training process.

For preschool educators, training effectiveness is similarly tied to their specific needs and backgrounds. Given the diverse educational backgrounds of preschool staff, both in Greece and internationally, training content and delivery must align with their knowledge, skills, and experiences (Mitchell & Cubay, 2003; Bowman, Donovan & Burns, 2001). Mitter & Putcha (2018) further stress that effective training is most impactful when it matches the individual and contextual needs of educators. They also highlight that training tends to be limited to staff working with younger children and those in rural areas.

### **3. Preschool Education in Europe and Greece**

The preschool age is currently considered the most important period in a person's life, as it is during this time that the foundations are laid for their later academic path, personal development, and lifelong learning. A large number of studies have linked the significance of quality preschool education and care with positive outcomes, both in terms of children's academic and social skills and in terms of positive effects on their health (Gregoriadis, Grammatikopoulos & Zachopoulou, 2018). Preschool education and care services are a strategic social investment in many OECD countries and European Union member states (Council of the European Union, 2019). Although the reasons for this investment are primarily economic and then social (Gregoriadis, Grammatikopoulos & Zachopoulou, 2018), the expansion of preschool education and care to serve a larger number of children, as well as its qualitative enhancement, is considered essential, as it is linked to lifelong learning (European Commission/EACEA/Eurydice, 2019; OECD, 2006).

#### *3.1. Preschool Frameworks in Europe and Educational Personnel*

Although preschool education's importance in child development is widely acknowledged, it is not viewed as a unified system across EU and OECD countries. Preschool structures vary, with two main models: unified systems and separated systems, as well as a mixed model in some countries (European Commission/EACEA/Eurydice, 2019; Urban et al., 2011). Unified systems offer services for the entire preschool age range, with children staying within the same framework until they start primary school. These systems exist in fewer than a third of European countries, including Finland, Sweden, and Slovenia, and are typically funded and regulated by the Ministry of Education.

In contrast, separated systems divide preschool care and education into two structures, each governed by different bodies. Care structures cater to children up to age 3 or 4, while preschool education structures serve older children. Access to education structures is legally guaranteed, but this is not the case for care structures. Separated systems are found in nearly half of European countries, including Belgium, France, and Greece (European Commission/EACEA/Eurydice, 2019; OECD, 2006). Additionally, private providers offer preschool care and education, with home-based care being a common option in several countries, such as France and Germany, and often regulated by law.

In separated systems, differences extend to the educational personnel, with staff qualifications varying between care and education structures. Educators in education structures generally require a higher education degree (Bachelor), while staff in care structures tend to have fewer qualifications. Assistant educators, who do not require higher education in most countries, play a significant role in preschool education (European Commission/EACEA/Eurydice, 2019a). Urban et al. (2011) argue that there is no uniform category for preschool staff across Europe.

Furthermore, differences exist in continuing education and professional development for educators. Ongoing professional development is mandatory in only a few countries (e.g., Scotland, Luxembourg, Romania), and while it is required for educators of children over three years old in fewer than half of the systems, it is often optional for those working with children under three (European Commission/EACEA/Eurydice, 2019a, 2019b).

#### *3.2. Municipal Nursery and Kindergarten Schools in Greece*



In Greece, early childhood education is divided into two main categories: early childhood care and education for younger children (up to 4 years old) and preschool education for children aged 4–6 years old. Preschool education falls under the responsibility of kindergartens, which are part of the compulsory education system and fall under the Ministry of Education, while early childhood care and education are provided in Nursery and Kindergarten Schools (hereafter referred to as P&KS) that fall under the Ministry of the Interior. Municipalities or private individuals meeting the establishment and operation requirements, as set out in Ministerial Decision D22/oik. 11828/293/2017, have the right to establish P&KS.

The operational framework for Municipal Nursery and Kindergarten Schools is defined by the Standard Operating Regulation, which was updated in 2017 by Joint Ministerial Decision 41087/29-11-2017. These P&KS are services provided by the municipalities or municipal legal entities. Additionally, each municipality has the right to issue its own Regulation, provided that it adheres to the minimum standards outlined in the Standard Operating Regulation. According to this regulation, "Nursery, Infant, and Kindergarten Schools are primarily educational and pedagogical structures for preschool children, aiming to:

- Provide preschool care and education based on the most up-to-date scientific data.
- Raise parents' awareness of contemporary pedagogy and psychology, offering them information and guidance.
- Assist children in their smooth transition from the family to the school environment, as well as into the broader social and educational context.
- Provide daily nutrition and care for the children, ensuring hygiene and safety standards.
- Facilitate working and unemployed parents (Law 41087/29-11-2017. Government Gazette B 4249/5-12-2017, p. 55989).

Furthermore, the Regulation addresses issues related to the operational framework of the schools, the criteria for the enrollment and hosting of children, health and nutrition provisions, general guidelines for approaching children by the staff during the daily activities, and the general duties of all staff specialties. An important feature is that these schools do not have a formal curriculum like kindergartens but follow a "daily activity schedule," which is the responsibility of the educator and is not detailed in the Standard Operating Regulation.

Municipal Infant Schools host children from 2 months to 2.5 years old, while Municipal Kindergarten Schools host children from 2.5 years old until their registration in compulsory education—Kindergarten. Their operation lasts from 7:00 AM to 4:00 PM to accommodate working parents. Attendance at these schools is not compulsory but is part of the social policy for children and their families. For this reason, the regulation includes social criteria for the enrollment of children when the number of applications exceeds available places. Additionally, the regulation provides for a financial contribution from parents (fees) for the care of children, determined by the Municipal Council's decision.

As part of the social policy, in recent years many Municipal P&KS have been integrated into subsidized programs through ESF (European Social Fund), such as the European program "Harmonizing Family and Work Life" (Joint Ministerial Decision 0.8363/oik.3.1434/29-04-2010, Government Gazette 556/B/29-4-2010) and, since 2020, the program "Financial Support for Families with Preschool-Aged Children" (Joint Ministerial Decision D11/oik. 32940/1376/26-08-2020). The goal is to integrate as many children as possible under 4 years old into early childhood care and education. These programs subsidize working and unemployed mothers with infants and toddlers to secure a place for their children in preschool care and education structures (P&KS). For the implementation of these programs, municipalities have hired additional staff on fixed-term contracts to staff the schools.

### *3.3 The case of the Municipal Childcare and Preschool Stations in Kalamata*

In Kalamata, Greece, there are 7 Municipal Childcare Stations, including 4 with both infant and preschool sections and 3 with only preschool sections. Two infant sections are currently under construction. Infant sections serve children from 18 months to 2.5 years old, while preschool sections cater to children from 2.5 years old until

compulsory education begins. The Municipality has implemented two years of compulsory preschool education. Staffing varies by section, with infant sections employing 2 educators and one assistant, while preschool sections have 2 educators (usually a teacher and an assistant). The staff includes Kindergarten Teachers, Nursery Nurses, and Assistant Nursery Nurses, with some holding the position of Responsible Operator for each station. Less than half of the staff are permanent employees; the rest are on renewable contracts via the ESF Program, with occasional short-term contracts.

In the last ten years, the educators have received limited training, with only three seminars held. These included First Aid training, an earthquake safety seminar organized by the Fire Department, and a seminar on early intervention for preschool children organized by the Municipality of Kalamata.

#### **4. Method**

This section presents the research methodology.

##### *4.1 Research question*

Our research question was: “What are the problems that educators working in the Municipal Kindergarten Schools of Kalamata, Greece, face in their work?”

##### *4.2 Research Method -Research Tool*

To investigate the subjective dimension of the participants, a qualitative approach was employed, as it provides the appropriate framework for "recording, analyzing, interpreting, and understanding the experiences and subjective meanings" (Isari & Pourkos, 2015, p. 43), and allows for the revelation of "the variety of perspectives" of the participants (Flick, 2017, p. 31). The research strategy followed is a case study, since it concerns educators working in the Municipal Kindergarten Schools of Kalamata, Greece, during the school year 2020-2021. According to Robson (2010), a case study is more a research strategy than a research method and focuses on a phenomenon in its context. We determined that the semi-structured interview is the optimal choice for the following reasons. The source of our data was the experiences and opinions of the educators, so the data needed to be drawn from their own words through their active participation in the research. The open-ended questions that make up the interview are a way of obtaining rich, in-depth information that reveals the perspective of the participants (Braun & Clark, 2013). Furthermore, the semi-structured interview provides 'a margin of freedom and the possibility to control the conditions of the interview' (Mason, 2003, p. 97) for both the researcher and the interviewee. The researcher can obtain in-depth information with additional questions, and the interviewee can ask for clarifications regarding the questions they receive (Mason, 2003).

##### *4.3 Sample*

As for the selection of participants in the study, convenience sampling was used, as it utilized the availability and willingness of the participants to take part in the research and the researchers' easy access to the educators (Creswell, 2016; Cohen, Manion & Morrison, 2007). The sample selected using this method is not considered representative, but rather self-representative, which is why it is often chosen in case studies (Cohen, Manion & Morrison, 2007), such as the present one. The participants in the study were 13 educators, all female. Specifically, the study involved four Kindergarten teachers (PE), five Early Childhood Educators/Infant and Toddler Caregivers (TE), and four Assistant Infant and Toddler Caregivers (DE), two of whom were high school graduates and two vocational school (IEK) graduates. The ages of the participants ranged from 37 to 55 years, and most of them worked with continuous, renewable fixed-term contracts (S.O.X) through the ESF program, while three educators were permanent employees and two had indefinite contracts.

#### 4.4 Data analysis method

For the analysis of the collected data thematic content analysis was applied, as it is a "flexible" method that combines a range of data collection techniques and can be applied to various sample sizes (Braun & Clarke, 2013, p. 183; Creswell, 2016; Cohen, Manion & Morrison, 2007) This is a research method that employs a set of procedures, methods, and techniques to draw valid conclusions (Weber, 1990, p. 9).

### 5. Results

This section portrays the research results.

#### 5.1. Problems educators face in working with children

Question 1 addressed the problems they have encountered in their work with children, asking for examples to highlight the difficulties encountered by educators in daily practice.

In the majority of cases (8 out of 13), educators from all specialties reported developmental disorders presented by the children. These developmental issues created challenges in managing and pedagogically addressing the needs of these children. Autism (7 references) was one of the most frequently mentioned problems. Specifically, Educator 7 mentioned, "Yes... I had a child in the distant past, and later I realized, as I studied to understand, that the child probably had autism. But unfortunately, the knowledge and experience I had at the time did not help me understand what exactly was happening, and I had a hard time adjusting to the child." Similarly, there were reports of children with attention deficit hyperactivity disorder (ADHD) (4 references). Educator 10 shared, "I had a child who was very hyperactive. I couldn't manage them easily. No matter what activities I tried, I couldn't engage them. They wouldn't listen, and with other colleagues, we struggled. In the end, I couldn't handle this child, I couldn't calm them down." Additionally, there were two references to issues related to dyslexia, though there were no detailed mentions of how the problems were addressed by the educators. Educator 5 stated, "There were just some dyslexia issues that were recognized at this stage of age, and after that, they would receive therapies either from an occupational therapist or a speech therapist, depending on the case, but not severe cases." In the developmental disorders category, there was also a mention of pedagogical handling regarding children's speech development. Educator 2 recalled, "I remember another child who hadn't developed speech properly. I believe this creates a problem because we don't know the right way to approach them to help them more. I find a weakness in myself in not knowing how to manage this and help them."

Other issues encountered by educators included behavioral problems (3 references), such as aggressive behaviors (biting, hitting) from children. Educator 3 said, "Behavioral problems, nervousness due to family situations. There were children who hit, bit, all these years." There were also mentions of children's reactions due to family-related issues (1 reference), as Educator 8 explained: "There was a child who, while working on the family topic, sat at a table and cried. I went up to see why they were crying, and they told me their parents were divorced, and the behavior of the parents—fighting constantly..."

From the educators' responses (3 references), it was evident that in some cases, the problems they faced with specific children made it difficult for them to manage the entire class. Educator 11 mentioned, "The child had many behavioral difficulties, couldn't participate in any group activities... I had a lot of trouble controlling the group because the child disrupted the whole class, and that was the biggest issue." Similarly, Educator 13 added, "For example, I remember the hyperactive child... due to the commotion they caused, because they were constantly moving, talking incoherently, I couldn't maintain calm and balance in the class."

Additionally, issues were raised regarding classroom layout (1 reference), and the large number of children in the group (2 references). Educator 10 said, "One year, I had a lot of trouble because the number of children was very high, and consequently, it was difficult to manage them within the classroom."

### *5.2. Problems educators face with parents*

The next question (question 2) focused on problems educators face with parents. The majority of educators (11 out of 13) mentioned communication, trust, and collaboration issues with parents. According to the educators, problems arise when they have to inform parents about an issue with their child, as parents often react with denial or skepticism (8 references). Educator 11 commented, "It was like the parents didn't recognize the problem, like everything was normal. They didn't listen to me, didn't believe me; they didn't want to believe me. I don't know what to say." At the same time, an issue arises regarding the way educators inform parents about their child's problem (4 references). Educator 4 explained, "Some parents aren't receptive to the idea that their child might have an issue. And it requires a very careful approach on how to present this to them," and Educator 9 said, "I learned last year that I need to approach them very carefully, because they get scared, they start to doubt, they feel defensive." Educators also mentioned problems in cooperation with parents when the latter are facing family issues such as divorce (2 references). As Educator 3 mentioned, "In recent years, I've encountered some cases of divorced parents or parents separated who hadn't settled their issues. For example, I've had cases where the mother, who was separated from her husband, would tell me not to give the child to him if he or his mother came."

### *5.3. Ways to address problems*

Question 3 explored how educators addressed the problems mentioned earlier. Three educators turned to the parents through dialogue to address the issues: "I always try to handle problems with parents through discussion. The same goes for children—if I identify an issue, something causing difficulty in the group, I prefer to invite the parents to a meeting so we can discuss the child's problem and find a solution" (Educator 6). Similarly, three educators sought help from their work environment by turning to colleagues and the station supervisor: "Definitely with a lot of patience and cooperation with the department head and the station supervisor" (Educator 13). Five educators mentioned that they attempted to address the problems by applying the best practice they thought was suitable, either with the parents or the children, without mentioning seeking help or support from others. Educator 12 noted, "With parents, other than staying calm, there's nothing else you can do. What else can you do... (...). The child with ADHD, I would engage them for some time... And the child with autism, again, I would engage them myself."

There were also cases where educators (3 references) mentioned that although they tried to discuss the issue with the parents, they ultimately couldn't resolve the problem. As Educator 7 said, "I tried individual informational meetings with the mother, but she was negative and didn't believe her child had a problem... and in the end, I couldn't resolve the issue."

### *5.4. Support in addressing problems*

The following question (question 4) sought to investigate who the educators turn to when they face difficulties and why. More than half of the educators (7 references) said they initially turn to their work environment, colleagues. Educator 8 said, "I usually turn to a colleague because we work together and have been collaborating for years. I trust her; she has more years of experience, and I consult her a lot. So when I have a problem, I turn to her." Most educators (9 references) turn to the hierarchy (the supervisor of the station or higher authorities). Educator 6 said, "It depends on the difficulty. I usually prefer to turn to the supervisor of the nursery school first because I think that's their role... to try to find solutions for any daily difficulties in the nursery school or related to any educator, child, or anything else." Three educators mentioned that they approach different people or sources depending on the problem. Educator 5 noted, "First, I turn to my assistant, if they can help me, at least to a certain point, and then to the station supervisor. For practical issues, mainly. For educational matters, I consult the internet or other colleagues." Besides colleagues or superiors, educators also turn to the internet (4 references) or a specialist (2 references). "As I said earlier, I consult colleagues with more experience and the supervisor, but also books, the internet, and sometimes I consult a specialist" (Educator 11), "If I happen to know a specialist, I try to take advantage of the connection to gather information and get help regarding the issue I'm struggling to handle" (Educator 6).

Additionally, two educators emphasized the lack of a specialist within the nursery, so they either don't approach anyone else ("There's no one, because there's no specialist... (laughs)... If there was a child psychologist, something could be done...") (Educator 7) or look for alternative ways (internet, seminars) "There's no specialist at the nursery to turn to. That's something I try to handle by using new methods, staying updated through the internet and seminars I've attended" (Educator 1). In their responses about why they turn to specific people or sources, they mention turning to colleagues due to their greater experience or because of trust, as well as supervisors because they are perceived as experts who can help with finding solutions. Other responses emphasized practical advice for handling specific situations and obtaining information. From the series of their references, it appears that they turn to the internet or a specialist for support, or if they believe that their colleagues or superiors cannot help them with the problem they are facing.

#### *5.5. Problems in integrating foreign children*

Next, question 5 is more specific and was included in the interview to explore whether educators face difficulties integrating children who speak different languages or are from foreign countries, and what kinds of problems they encounter. The majority of educators (8 educators) mention language differences as a communication, understanding, and ultimately integration issue for these children. "Let's say children who cannot understand us at all and unfortunately cannot understand the various activities we do. This is the hardest part because they cannot integrate into the group" (S5). They also identify the difficulty the rest of the children face in understanding and communicating with the non-native speaking child: "The only problem I've encountered is the language. (...) And this results in the children not understanding very well when I speak to them, I don't understand what they say, and they can't communicate with the other children" (S4). In two instances (2 references), the use of the mother tongue at home by the family is seen as a barrier to learning Greek: "...the parents don't speak Greek, it's very difficult, the mother doesn't cooperate because she doesn't speak Greek very well, the sister only speaks when she goes to primary school" (S9).

Additionally, only three educators mentioned the different ethnic and cultural backgrounds of the children as an issue related to their pedagogical work: "But I've often faced hesitations on how I will develop a topic related to our national holiday... or a topic related to... it probably includes our religion" (S7).

Out of all the educators, two mentioned that they have never had children in their class who speak another language or come from another country. However, they stated that communication issues would arise due to language differences, as S8 specifically mentions: "So far, I haven't encountered it. However, if a child were to come from another country, it would definitely be difficult for me to communicate with them if they don't speak Greek."

Furthermore, three educators commented on the long period of time it takes for children to learn the language and communicate with the others: "Well, we try over time, but it takes time when they don't know any Greek, it's difficult" (S3). Finally, only one educator mentioned having experience with children from different nationalities: "I haven't encountered any problems because... it happens to be a subject I worked on in the early years of my career. (...) I was part of a research intercultural program" (S7).

#### *5.6. Problems due to lack of pedagogical activity program*

As mentioned in the theoretical part, there is no officially established pedagogical activity program for Pre-School and Day Care Centers. The last two questions (questions 6 and 7) aimed to investigate whether educators face issues due to the lack of a program. In question 6, they were asked about their opinion on the absence of a program. All educators, except for one, believe that there should be an official program in the form of a general framework-guide with opportunities for adaptation: "I believe it would be good to have a broader framework, a general guideline as to where we should go, and each educator, seeing the abilities of the children in the class, would adjust this program accordingly" (S4). Most educators describe an ideal program by outlining the features of a functional program for them. Specifically, three educators used the term "guideline" to describe the program: "It would be good to have an activity program. We should have a guideline to follow and then add whatever we want. But it would be good if there was an organized program" (S3). Three educators mentioned that they would prefer the

program to be more specific, so they could refer to it for both activity development topics and ideas for activities: "It's useful because I think it would give me ideas, and it would definitely help me with my doubts about whether I'm choosing the right activities and the right topics to teach the children" (S13).

In contrast, four educators emphasized the flexibility of the program so that it can be adjusted to the needs, ages, and abilities of the children in their class. S1 mentioned, "On the other hand, I think there should be a program where each educator could adjust it according to the needs of the children." The flexibility of the program was also the reason why only one educator mentioned that she does not want an official program: "On the one hand, I think I've concluded that I prefer the current system, the free development of topics that I choose, because I believe that what I choose fits better with my class, and the children like it, providing them with experiential learning" (S6).

Subsequently, question 7 explored what educators rely on when designing the pedagogical program in practice. The answers varied, showing that, due to the lack of an official program, educators look for different sources to design the activities for their classes. The characteristics of the children's group (8 references) are some of the main factors influencing the design of the pedagogical program, whether these characteristics relate to the children's age or their needs: "And I mainly rely on the age of the children I'm working with and their needs depending on their age" (S8).

Six educators (4 kindergarten teachers and 2 daycare workers) stated that they rely on the knowledge they gained from their studies: "Usually... based on the new program, the curriculum, because I've also finished kindergarten teacher school" (S1), "On the knowledge I have from my school and from my postgraduate studies now. But also on the needs of the group each time" (S7). All kindergarten teachers (4 references) mention that, due to their degree, they rely on the Kindergarten Curriculum and adapt it to the age group of the children they work with each time: "So, yes, I follow the official kindergarten program, I get updated on any changes, and I adjust it based on the age and the material, the level of the children in the class" (S9). In contrast, no daycare assistants mentioned relying on knowledge gained from their studies.

Furthermore, four educators mentioned the time of year as a basis for designing the activity program, depending on the season, holidays, and daily life: "I rely on the seasons, the holidays, the traditions of the country, current events, but often I deviate and rely on the stimuli provided by daily life" (S6). Alongside the previous answers, some educators also mentioned that they refer to the internet (3 references), colleagues (3 references), and books (3 references) to facilitate designing the program: "Yes, I use the curriculum guide for kindergarten teachers as a basis. Then... ideas from books or the internet, but I also exchange information and ideas with colleagues" (S11).

## 6. Conclusions

From our research on the problems faced by educators in their pedagogical work, the following conclusions arise: The vast majority of educators in the Municipal Childcare and Preschool Stations of Kalamata face problems in the daily management and pedagogical handling of children with some type of developmental disorder. The problems they mentioned mainly focus on individual cases of children who were difficult to handle or manage, while the reported developmental disorder is often their personal judgment or assessment and is not accompanied by an official diagnosis from the competent authority. The management and pedagogical handling of children with autism and ADHD are among the most frequent problems faced by educators, followed by issues related to children's behavior and classroom management. Although developmental issues were not the only problems mentioned, the frequency of responses and the priority given to them highlight the seriousness of the issue, which may overshadow other concerns that create smaller problems for educators. Furthermore, the problems mentioned regarding the relationship between educators and parents seem largely to stem from the challenges educators face with the children. Specifically, communication, trust, and cooperation issues with parents were raised, especially when educators need to inform them about a problem the child is facing.

Additionally, educators seem not to follow an organized approach to address these problems; each educator decides how to proceed depending on the issue at hand. Specifically, their responses differed when asked how

they dealt with the aforementioned problems and when asked whom they turn to when facing difficulties. In Question "How did they deal with the problems?" only three mentioned they turned to colleagues, while in the next question (Who do they turn to?), the majority answered colleagues and superiors due to experience or trust. This particular question warrants further investigation.

The integration of foreign or non-native language children had not been presented as a problem by the educators until they were specifically asked about it. The main problem they face is communication due to the language barrier, which, in turn, is considered by educators as the cause of unsuccessful integration of non-native language children into the classroom. Educators seem to equate the integration of these children with learning the Greek language. The different ethnic and cultural backgrounds of the students were considered a problem by a small minority of educators. This could be interpreted in various ways: either educators do not perceive ethnic and cultural differences as a problem because they know how to address it pedagogically, or they do not consider it a problem and treat all children as a homogeneous group without recognizing their unique ethnic and cultural backgrounds. Based on the educators' responses to this specific question, the use of the third person (e.g., "to integrate") in relation to the children's integration, the belief that integration will happen over time by the children themselves, and the lack of reference to any intercultural pedagogical intervention on their part leads us to adopt the second interpretation. The communication problem due to the children's different language agrees with the findings of Kalomiri (2020) and Koutroubis (2019), while the absence of intercultural approaches aligns with the findings of Kalomiri (2020).

Consequently, the lack of an official pedagogical program concerns the educators, who consider an official guide program necessary, one that responds to the ages and needs of the children hosted in the Childcare and Preschool Stations. Having become accustomed to designing the pedagogical program on their own, they describe an ideal program, whether more flexible or more specific, depending on the difficulties they face in its design. Additionally, the specialty and education of the educators influence the design of the program they implement in their department. Kindergarten Teachers adjust the Kindergarten Curriculum to the ages of the children in the Childcare Stations, while Nursery Nurses are more flexible in designing the program as they are more familiar with the age group of children in the stations due to their training. Assistant Nursery Nurses, although not responsible for designing the department's program, refer to various sources for ideas, as do the other specialties.

As for the problems faced by educators in their pedagogical work, unfortunately, no studies were found, other than Kalomiri (2020) and Koutroubi (2019), to compare the results with this one.

From the previous analysis, the urgent need for the continuous, organized, and targeted professional development of educators working in Preschool and Nursery Schools becomes clear. This development should be aligned with their training needs, as identified through the challenges they face in their daily teaching and educational practice.

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