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Teaching at the Right Level: From Pre-service Teachers’ Perspective to Design of Teaching Material

Hasan Busri¹, Ari Ambarwati², Khoirul Muttaqin³, Gusti Firda Khairunnisa⁴

¹ Department of Indonesian Language and Literature Education, Faculty of Teacher Training and Education, Universitas Islam Malang, Malang, Indonesia. Email: hasan.busri@unisma.ac.id

² Department of Indonesian Language and Literature Education, Faculty of Teacher Training and Education, Universitas Islam Malang, Malang, Indonesia. Email: ariati@unisma.ac.id

³ Department of Indonesian Language and Literature Education, Faculty of Teacher Training and Education, Universitas Islam Malang, Malang, Indonesia. Email: k.muttaqin89@unisma.ac.id

⁴ Department of Mathematics Education, Faculty of Teacher Training and Education, Universitas Islam Malang, Malang, Indonesia. Email: firdakhairunnisa123@unisma.ac.id

Correspondence: Ari Ambarwati, Department of Indonesian Language and Literature Education, Faculty of Teacher Training and Education, Universitas Islam Malang, Malang, Indonesia. E-mail: ariati@unisma.ac.id

Abstract

Teaching at the Right Level (TaRL) is a learning approach that facilitates learning according to the ability level of each student. To explore the understanding of pre-service teachers regarding teaching materials with the TaRL approach, researchers conducted qualitative research with the subjects of 9 students from the students of pre-service teachers of Pendidikan Profesi Guru (PPG)/Teacher Professional Program. Teaching materials with the TaRL approach made by the subjects are studied more deeply and measured through 9 indicators of suitability of teaching materials based on the TaRL approach. Furthermore, each subject was interviewed to get more detailed findings regarding the pre-service teacher's understanding of TaRL-based teaching materials. Based on the results of studies and interviews, it was found that all subjects did not make teaching materials that were in accordance with students' abilities and did not make indicators to identify students who needed special handling. Pre-service teachers who understand the concept of TaRL tend to meet all indicators in making teaching materials that are in accordance with TaRL principles. Further research is needed to find gaps in the difficulty of pre-service PPG teachers in formulating teaching materials needed by students according to their perspective levels of understanding.

Keywords: Design of Teaching Material, Pre-service Teacher, Teaching at the Right Level

1. Introduction

Indonesia still faces low quality education. The United Nations Development Program (UNDP), in 2020 stated that Indonesia's Human Development Index (HDI) was in position 121 out of 189 countries, far below ASEAN countries such as Malaysia, Singapore, Thailand, Vietnam, and Brunei (Margaretha, 2023). This condition is linear with the results of the *Program for International Student Assessment (PISA)* in 2018 which placed Indonesia in

70th place out of 78 countries in the field of science, 72nd out of 78 countries in the field of Mathematics, and 72nd out of 77 countries in the field of reading. While in 2023, referring to the results of the PISA survey announced on Tuesday (5/12/2023), globally, the scores of mathematics, reading, and science skills of 15-year-old students in 81 countries fell, including in Indonesia. This international assessment of math, reading and science skills among students in PISA was designed by the Organization for Economic Cooperation and Development (OECD) (kompas.id, 2023). The achievement of Indonesia's PISA score since participating for the first time in 2000 to 2022, the PISA 2022 score is among the lowest, especially in reading (359), the lowest ever in 2000 and 2018 (371). So did math scores (366), ever the lowest of 2022 (360). As for science (383) it is relatively stable.

Anticipating this problem, in January 2022 the Ministry of Education, Culture, Research, and Technology (Kemdikbudristek) adopted the use of the Teaching at the Right Level (TaRL) approach pioneered by India. This approach aims to increase student learning participation in the classroom. Teaching at the Right Level (TaRL) was originally introduced by an Indian Non-Governmental Organization (NGO), Pratham, which was a response to the failure of the education system (Gandana et al., 2021; Rahayu, 2022; Unesco, 2023). In classroom practice, TaRL is a teaching approach that utilizes simple testing tools to assess and then categorize students according to their level of learning compared to their age or grade. TaRL is currently used in several African countries such as Zambia, Botswana, Ghana, Nigeria, and Uganda (Suharyani et al., 2023).

The adoption by the Kemdikbudristek of TaRL is a strategic step. In classroom learning, TaRL is a teaching approach that utilizes simple test tools to assess and then group children according to their learning level (Syarifudin et al., 2022; Unesco, 2023). Grouping is done based on their level of learning, not their age or grade. The TaRL approach prioritizes improving basic skills, supported by appropriate learning methods. The TaRL approach facilitates flexibility to teach according to the student's ability. This approach is structured to adjust the achievements, ability levels, and needs of students. TaRL is not tied to grade level, but adjusts based on students' abilities. (Angrist et al., 2020).

Previous research on TaRL implementation was conducted by Lakhsman (2019). Lakhsman (2019) states that the application of TaRL is implemented through three main ways. First, as a volunteer-based model through iterations of previous methods. Secondly, Pratham's team members led the work (assisted by volunteers) and carried out significant transformations and changes in basic learning in a relatively short period of time. Third, partnerships with government school systems at either state or district level where Pratham's team works closely with the government to incorporate core elements of the TaRL methodology into classroom teaching. The three methods are applied according to the needs and conditions of the school.

The TaRL approach implemented in primary schools in India shows that the methodology used, which consists of reorganizing instruction based on children's actual learning levels, rather than on a prescribed syllabus, has proven to be highly effective when applied correctly (Banerjee et al., 2016). Furthermore, despite the *promise of randomized controlled trials* (RCTs), the evaluation results obtained from the application of TaRL succeeded in increasing the level of student learning using measurable models in government schools.

Subsequent research focused on teachers' accurate perceptions of students' learning levels, before accompanying teachers to implement TaRL. The results obtained in this study show that increased intervention for teachers in identifying and utilizing data, assisted by technology is needed to improve student learning outcomes (Fitriani, 2022; Syarifudin et al., 2022). Teachers' perception of students' level of learning ability is a significant factor before the implementation of TaRL learning.

Although previous research on TaRL has been carried out, especially on the aspect of simple test instruments, the implementation of TaRL in the classroom to improve literacy and numeracy skills, including identifying teacher perceptions before implementing the TaRL approach, mapping the perspectives of Pre-service Teacher Professional Program (PPG) teachers and how they arrange teaching tools, which adapt the TaRL approach, has not been intensively carried out. This research is urgent considering that the Ministry of Education, Culture, Research, and Technology has an interest in implementing the Kurikulum Merdeka (Independent Curriculum) by applying the TaRL approach, especially to teachers who are included in the Pre-service Teacher Professional

Program (PPG). Mapping the perspectives of Pre-service PPG teachers is an indicator of whether teachers' understanding of the TaRL learning approach is adequate.

This study explored the understanding and evaluation of TaRL learning tools made by Pre-service PPG teachers for batch 2 2023 of Universitas Islam Malang and conducted structured interviews to dig deeper into how teachers' perspectives on TaR, in 9 (nine) respondents. The nine teachers were the teachers whose learning tools got the highest (top three), medium (three people), and low (three people with the lowest scores).

2. Method

This research is qualitative research with a case study approach. This research focuses on an in-depth understanding of the experience of Pre-service PPG students regarding the preparation of TaRL-laden teaching materials. The subjects of the study were 76 PPG Pre-service Batch 2 students of 2023, from three fields of study, namely Mathematics, English, and Indonesian of Universitas Islam Malang. Then 9 subjects were selected based on the students' final scores, with details of 3 students who got high final marks, 3 students who got middle final marks, and 3 students who got low final scores. Next, researchers coded each subject to facilitate writing the analysis as shown in Table 1.

Table 1: Subject Codes

Subject	Subject Code
Subjects from Indonesian field of study with high grades	ST1
Subjects from the field of study of Mathematics with high grades	ST2
Subjects from the field of English study with high grades	ST3
Subjects from Indonesian field of study with moderate grades	SS1
Subjects from the field of study of Mathematics with moderate grades	SS2
Subjects from the field of English studies with moderate grades	SS3
Subjects from Indonesian field of study with low grades	SR1
Subjects from the field of study of Mathematics with low grades	SR2
Subjects from the field of English study with low grades	SR3

The instruments used in this study were the list of interview questions shown in Table 2 and the TaRL indicator table which included nine components as shown in Table 3. The nine components include the initial level of understanding, grouping of students, customized learning materials, relevant exercises and activities, continuous monitoring and evaluation, adjustment ability, interactivity, the possibility of providing additional support, and emphasis on understanding concepts.

Table 2: List of TaRL Understanding Questions for Pre-service PPG Students Batch 2 -Year 2023

No	QUESTION
1	What is your understanding of the concept of Teaching at the Right Level (TaRL)?
2	How do you think TaRL differs from conventional learning approaches?
3	Are you able to explain the basic principles of TaRL in teaching?
4	Why do you think it is important to tailor teaching to each student's level of understanding, as is done in TaRL?
5	How can TaRL help address student comprehension gaps in the classroom?
6	In the context of TaRL, what is meant by " <i>assessment-driven instruction</i> "?
7	How can TaRL be implemented in online or distance learning situations?
8	What benefits might students derive from applying TaRL teaching methods?

- | | |
|----|---|
| 9 | How has the role of teachers changed in the context of TaRL learning compared to conventional approaches? |
| 10 | How do you see the potential use of technology in supporting TaRL implementation in educational settings? |

Data collection techniques are carried out in two ways. First, the subject is given a deep question regarding the understanding of TaRL. Subsequently, an examination is conducted on instructional resources employing the TaRL (Teaching at the Right Level) methodology within the context of the subject matter. This analysis seeks to assess the congruence between the documents, structured as educational materials, and the specified criteria aligned with the TaRL approach.

Table 3: Table of Conformity Indicators of Teaching Materials Teaching at The Right Level

No.	Indicators	Avai lable	Not Availa ble
1	Measurement of Initial Comprehension Level: Teaching materials should include initial measurement tools, such as diagnostic tests, that help determine a student's initial level of understanding of the topic to be taught. This allows teachers to group students based on their abilities.		
2	Student Grouping: This indicator includes the process of grouping students into groups based on diagnostic test results. These groups should have a similar level of understanding, so that teaching materials can be tailored to each group.		
3	Customized Learning Materials: Teaching materials should include material appropriate to the level of understanding of each group of students. This material should be designed to be well accessible and understood by students in the group.		
4	Relevant Exercises and Activities: This indicator includes the presence of exercises and activities appropriate to the student's level of understanding. These activities should be designed to help students deepen their understanding.		
5	Continuous Monitoring and Evaluation: Teaching materials should include methods of continuous monitoring and evaluation to measure student progress. This helps the teacher or teachers adjust instructions when needed.		
6	Customizability: Teaching materials should be flexible and allow teachers or tutors to adjust them according to student progress. It includes guidance on how to adapt teaching materials for students who are faster or slower in understanding the material.		
7	Interactivity: Teaching materials should stimulate active student participation. This can include questions, discussions, or tasks that encourage deeper understanding.		
8	Possibility of Providing Additional Support: Teaching materials should also include indicators to identify students who may need additional support, such as students who require special guidance.		
9	Emphasis on Understanding Concepts: Teaching materials should place emphasis on understanding concepts rather than simply memorizing facts. It helps students understand and apply concepts in a variety of contexts.		

Data analysis is carried out by means of thematic analysis to identify patterns, themes, and relationships between student experience and teaching material design. The observation was carried out to see and obtain evidence of a pattern about the relationship between students' perspectives on TaRL as well as the accuracy of the teaching materials they had compiled. The results obtained are used to make recommendations related to TaRL-loaded teaching materials that are in accordance with TaRL principles to be implemented in classroom learning.

3. Results

3.1 Results of TaRL Understanding in Pre-service PPG Students Class Batch of 2023

The results of the understanding of Pre-service PPG students explored through the first question, about the concept of TaRL show that the subject conveys a definition of TaRL which functions as a learning approach that emphasizes the level of understanding, learning readiness, style, and interest in learning students. Only one subject stated that TaRL is a learning strategy that focuses on the abilities of each learner individually, not by grade or grade level.

In the second question related to the difference between TaRL and conventional learning, the subject answered the distinguishing aspects are in the teaching material, learning readiness, which is differentiated (content, process, product), personalized learning, and the learning center is on the student. The third question explores the basic principles of TaRL in teaching that the subject understands is the existence of diagnostic tests, learning that is customized according to the student's ability level, and the flexibility of teaching to students. One subject did not answer in detail.

In the fourth question, the subject was asked why teaching adjustments are important in TaRL. The subject stated that teaching adjustments need to be made because students have different learning speeds, interests, and styles in order to get maximum learning, teachers can adjust learning strategies-learning media, facilitate students who start learning from different beginnings, facilitate the identification of student knowledge groupings (low, high, medium), prevent student knowledge gaps, and different student characters then you should get more accommodating learning.

The fifth question focuses on whether TaRL can help address student comprehension gaps in the classroom. The subject states that the comprehension gap is narrowed by tailored teaching, facilitating teachers to structure innovative learning, TaRL enables teachers to recognize the potential, characteristics, needs and development of each student through initial and periodic assessments, and TaRL addresses student understanding gaps. One of the subjects stated that according to his experience the student managed to pass the predetermined standards at each level. They learn "conditioned" both in terms of text / material, media, assignments, and the intensity of teacher assistance.

In the sixth question, subjects were asked to answer the question what is *assessment-driven instruction*? The subjects said learning activities carried out based on student assessment or evaluation Assessment-driven instruction uses the results of the evaluation to determine the level of understanding of each learner and design teaching appropriate to that level. Thus, teaching is centered on assessments that provide immediate insight into the individual learning needs of learners, supporting a tailored approach to the teaching process. In the context of TaRL means whether the learning process is in accordance with the level and readiness of students. A learning approach that uses assessment results to determine objectives, strategies, and learning materials that are in accordance with the needs and abilities of students. With this approach, teachers can measure learners' learning progress, develop effective lesson plans, and provide accurate and systematic assessments. Information from this assessment is used to direct teaching by adjusting the material and teaching approach to suit the level of student understanding. "Assessment-driven instruction" refers to the use of continuous assessment to guide teaching. Teachers use assessment results to assess students' level of understanding of certain concepts. Based on these results, teaching is tailored to meet the specific needs of students. This approach places emphasis on responsiveness to students' actual level of understanding, ensuring that learning is tailored to needs. One subject stated that the meaning of the phrase refers to learning carried out based on data (values and results of diagnostic assessments). Assessment-driven instruction refers to the use of assessment to determine the level of understanding of learners and then design instruction based on that assessment. Assessment-driven instruction means that assessment should encourage learning. Assessment practice should send appropriate signals to students about what to learn, how to learn it, and the relative time spent on concepts and skills in a subject.

In the seventh question, the subject answered the question how can TaRL be implemented in online or distance learning situations? Nine subjects said that digital platforms that allow individualized assessment and teaching vary according to the level and learning style of students. The use of online evaluation tools, adaptive learning applications, and content development that is responsive to the level of understanding of learners in my opinion can support the effective implementation of TaRL in an online learning environment. Use of applications such as quizzies, video conferencing, break out room in zoom, google form. Kahoot, word wall, and learning spaces according to student level and readiness allow teachers to carry out online diagnostic assessments before grouping students according to ability level.

The eighth question focuses on the benefits of TaRL learning for students. The subject answers to increased understanding of the material, improved academic skills, increased student confidence, and reduced understanding gap among students because teaching is tailored to the level of understanding of individuals so as to be able to achieve learning objectives according to their level. TaRL reduces comprehension gaps, increases student motivation because students learn according to their style and ability level, and have a strong understanding of concepts. TaRL opens opportunities for students to achieve the expected competencies (even surpass) even though they come from various backgrounds of their respective cognitive abilities, while making learning effective. Students get learning instruction that matches their level of understanding, students can reach their full potential.

The ninth question asks students to answer the question of how the role of the teacher changes in the context of TaRL learning compared to conventional approaches. The role of the teacher has changed to become more individualist in the sense of understanding the individual students more deeply. The teacher does not deliver the material in general, but acts as a facilitator who identifies the level of understanding of individual learners and structures teaching accordingly. The teacher also acts as a counselor who analyzes the initial abilities of students and makes learning designs that are in accordance with the abilities of students. Teachers develop valid diagnostic assessments, design modules/mentoring plans tailored to the student's level. The teacher acts as a monitor of the development of student abilities and adjusts of material to student abilities.

In the tenth question, the subject answered the question of how the potential use of technology in supporting the implementation of TaRL in the educational environment. The subject stated that online learning applications, digital evaluation tools, and adaptive platforms provide solutions to identify students' levels of understanding very quickly and provide learning content tailored to individual learners. Technology also allows teachers to see the progress of their students in real-time and makes it easy to provide appropriate guidance. Teachers maximize the use of customizable applications in implementing TaRL, for example making quizzes according to their level in the quizziz application, and doing Lembar Kerja Peserta Didik (LKPD) (student's worksheet) can be through word wall or live worksheets. Teachers use a teaching module creation platform that can adapt content, media, and learning methods to student needs and interests, Technology facilitates teachers to identify and analyze the initial abilities of students, and create teaching materials that suit student abilities. The use of technology helps students and teachers achieve the expected competencies, so that students are happy and teachers are carefree. Technology increases student engagement in learning through the display of videos and online-based game slide shows.

3.2 Results of Identifying the Conformity of Teaching Materials with TaRL Components

Based on the results of the analysis of teaching materials made by nine (9) subjects who are students of PPG Pre-service Universitas Islam Malang (UNISMA) Batch 2 of 2023 with related TaRL components which contain 9 indicators, the following data can be presented. First is the ST 1 subject who is a student from the Field of Indonesian Language and Literature Education. This student gets high marks at the end of the semester. Indicators of teaching materials that have been made and in accordance with TaRL are indicators 1,2,4,5,6,7,8, and 9. While the indicator that is not suitable is indicator 3.

The second subject is SS1 students who also come from the Field of Indonesian Language and Literature Education. This student gets moderate grades at the end of the semester. Indicators of teaching materials that have been made and in accordance with TaRL are indicators 4, 5, 7, 8, and 9. While the indicators that do not match are indicators 1, 2, 3, and 6.

Next are SR1 students who also come from the Field of Indonesian Language and Literature Education. This student gets a low score at the end of the semester. Indicators of teaching materials that have been made and in accordance with TaRL are indicators 1, 5, 7, and 9. While the indicators that do not match are indicators 2, 3, 4, 6, and 8.

Furthermore, ST2 students are students from the Field of Mathematics Education. This student gets high marks at the end of the semester. Indicators of teaching materials that have been made and in accordance with TaRL are indicators 2, 4, 5, 7, and 9. While the indicators that do not match are indicators 1,3,6 and 8.

The fifth subject is SS2 students who also come from the Field of Mathematics Education. This student gets moderate grades at the end of the semester. Indicators of teaching materials that have been made and in accordance with TaRL are indicators 1, 2, 4, 5, 7, and 9. While the indicators that do not match are indicators 3, 6, and 8.

The next subject is SR2 students who also come from the Field of Mathematics Education. This student gets a low score at the end of the semester. Indicators of teaching materials that have been made and in accordance with TaRL are indicators 2, 4, 5, 7, and 9. While the indicators that do not match are indicators 1, 3, 6, and 8.

The seventh subject is ST3 who is a student from the Field of English Language Education. This student gets high marks at the end of the semester. Indicators of teaching materials that have been made and in accordance with TaRL are indicators 5, 6, 7, and 9. While the indicators that do not match are indicators 1, 2, 3, 4, and 8.

The eighth subject is an SS3 student who also comes from the Field of English Language Education. This student gets moderate grades at the end of the semester. Indicators of teaching materials that have been made and in accordance with TaRL are indicators 5, 7, and 9. While the indicators that do not match are indicators 1, 2, 3, 4, 6, and 8.

Next are SR3 students who also come from the Field of English Language Education. This student gets a low score at the end of the semester. Indicators of teaching materials that have been made and in accordance with TaRL are indicators 1, 4, 5, 7, and 9. While the indicators that do not match are indicators 2, 3, 6, and 8.

Based on the presentation of the results of the analysis of teaching materials, it can be found that indicators that consistently exist and are successfully met are indicators 5, 7, and 9. Meanwhile, the indicators that were consistently not met by the nine subjects were indicator 3, Adapted Learning Materials: Teaching materials must include material that is appropriate to the level of understanding of each group of students. This material should be designed to be well accessible and understood by students in the group. The results of the analysis can be seen in Figure 1.

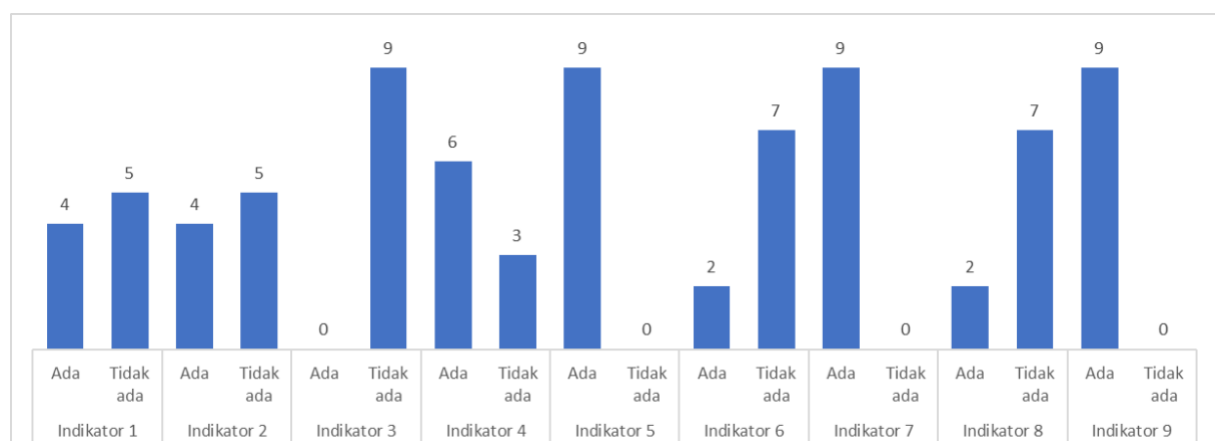


Figure 1. Number of Students Who Make Teaching Materials according to Teaching Material Indicators using TaRL Approach

4. Discussion

4.1 Understanding TaRL of Pre-service PPG Students

The Teaching at the Right Level (TaRL) approach will ensure students get a solid fundamental interpretation before moving on to more complex concepts, which will give students a strategic foundation to develop their creativity (Pebriyanti et al., 2023). The research reinforces that to condition students who have a solid basic understanding to increase their creativity, teachers must have a good understanding of TaRL. The Teaching at the Right Level (TaRL) approach will ensure students get a solid fundamental interpretation before moving on to more complex concepts, which will give students a strategic foundation to develop their creativity (Adil et al., 2022; Jazuli, 2022; Pebriyanti et al., 2023). The research has implications for conditioning students to have a solid basic understanding to increase their creativity, so teachers must have a good understanding of TaRL. In this context, the research focuses on exploring the understanding of Pre-service PPG teachers on the TaRL learning approach, through structured interviews and identification of TaRL-laden teaching materials on nine subjects.

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Of the nine subjects, only one stated that TaRL is a strategy. The other eight subjects stated that TaRL is a learning approach that emphasizes students' level of understanding, readiness to learn, style, and interests. This understanding is linear with research (Amoah et al., 2022; Meishanti et al., 2022) who argue that learning in small groups with interactive instruction, students' weak points are addressed and managed before moving on to more difficult concepts. Pre-service PPG teachers batch 2 of 2023 have a good understanding of the definition of TaRL which emphasizes a learning approach that facilitates student learning readiness before carrying out learning.

In the first and second question points that explore the understanding and differences of TaRL learning with conventional learning, the subject has a homogeneous perspective that the distinguishing aspects of TaRL are teaching materials, readiness to learn, which is facilitated by differentiated learning through differentiation of content, processes, and products. Personalized learning is another buzzword for TaRL that is not implemented in conventional learning. The opinions expressed by subjects support the statement that learning *analysis* opens up new opportunities to promote personalization by providing insight and understanding into how learners learn and supporting tailored learning experiences that meet their goals and needs (Chatti & Muslim, 2019). The character of personalized learning is the spirit of TaRL teaching. Teachers understand that children at different levels of understanding need grouping to facilitate more personalized learning as needed (Ahyar et al., 2022; Ningrum et al., 2023).

The third question explores the basic principles of TaRL in teaching that the subject understands is the existence of diagnostic tests, learning that is customized according to the student's ability level, and the flexibility of teaching to students. Pre-service PPG teachers explain the basic principles of TaRL oriented to the level of understanding of students. These findings confirm that the level of student understanding becomes the starting point for teachers in formulating teaching that suits students (Aspat Colle et al., 2023; Banerji & Chavan, 2020).

The fourth question that focused on adjusting teaching according to students' comprehension levels and the fifth question how TaRL helped students' understanding gaps in the classroom became follow-ups after researchers found out how teachers understood TaRL learning principles. Adapting the teaching done in TaRL is important

because each learner has different speeds, interests and learning styles, TaRL can ensure that learning material is completely absorbed by each learner and improve their understanding and skills individually. Students who get teaching according to their ability and learning speed are more challenged and motivated to develop their potential. Students will also feel more valued and recognized as unique and distinct individuals. Teaching adjustments are strategic because teachers can set learning strategies, learning media, guidance, and appropriate treatment when carrying out the teaching process in class. TaRL enables teachers to optimize the prevention of gaps in understanding between students.

The sixth question explores the teacher's understanding of *assessment driven instruction* (ADI) and the seventh question how it is applied in learning. The teacher stated that ADI in the context of TaRL refers to the regular use of assessment to identify students' level of understanding of the material. In the context of TaRL, ADI refers to the use of ongoing assessment to guide teaching. Teachers use assessment results to assess students' level of understanding of certain concepts. Based on these results, teaching is tailored to meet the specific needs of students. This approach places emphasis on responsiveness to students' actual level of understanding, ensuring that learning is tailored to their individual needs. Meanwhile, the results of ADI are used to determine objectives, strategies, and learning materials that suit the needs and abilities of students. In research (Mostafa, 2011; Sari & Setyarsih, 2017; Soares & Draper, 2013) stated that ADI improves the portfolio design skills of in-service teachers in the field of English, improves the science process skills of high school students, and potentially improves the ability to read near informational texts. ADI plays a strategic role in photographing students' abilities comprehensively.

The eighth question delves into teachers' perceptions of the benefits of TaRL for students. Teachers convey the benefits of TaRL including understanding the material, improving academic skills, increasing student confidence, and reducing understanding gaps among students because teaching is adjusted to the level of individual understanding, students can achieve learning goals according to their level, increase student motivation, and make it easier for students to learn. The teacher added that the use of TaRL helps students achieve expected competencies (even surpass) despite coming from various backgrounds of their respective cognitive abilities. The eighth question correlates with the third question which delves into teachers' perceptions of the basic principles of TaRL teaching. Students are the center of TaRL orientation that requires teachers to be proficient in dealing with students with different levels of understanding.

Question nine explores the changing role of teachers in TaRL teaching. The role of teachers as facilitators is getting stronger in TaRL teaching, besides that teachers also act as counselors, and are adaptive to adjust the material according to the level of understanding of students. In conventional learning that has not applied TaRL, teachers rarely adjust the material needed by some students who are at a low level of understanding. This change makes teachers challenged to creatively arrange material according to student needs. This role shift according to (Muammar & Megawati, 2023) requires teachers or TaRL accompanying volunteers to carry out diagnostic assessments on students first and group students according to ability before teaching takes place. These pre-actions encourage teachers to better prepare before starting teaching.

The last question of this interview with Pre-service PPG teachers is to explore teachers' understanding of the potential use of technology in supporting the implementation of TaRL in educational environments. Online learning applications, digital evaluation tools, and adaptive platforms can provide solutions to identify the level of understanding of students very quickly and provide learning content that suits individual students, I think technology also allows teachers to see the progress of their students in real-time and makes it easier to provide appropriate guidance. Teachers think that technology can help teachers in designing and presenting learning materials that are appropriate to the level of students. For example, teachers can more precisely identify students' initial abilities to determine the use of teaching module creation platforms that can tailor content, media, and learning methods to student needs and interests. The involvement of technology as a learning application is proven to increase personalized or customized learning in low- to middle-income communities as well as in students and make students achieve higher learning outcomes (Amoah et al., 2022; Major & Francis, 2020).

4.2 Suitability of Teaching Materials with TaRL Components

Based on the results of this study, an interesting trend can be found regarding the suitability of teaching materials with the TaRL component juxtaposed with the overall results of student grades at the end of the semester. Good student grades at the end of the semester are not in line with teaching materials with the TaRL components they make. This is shown in Figure 2.

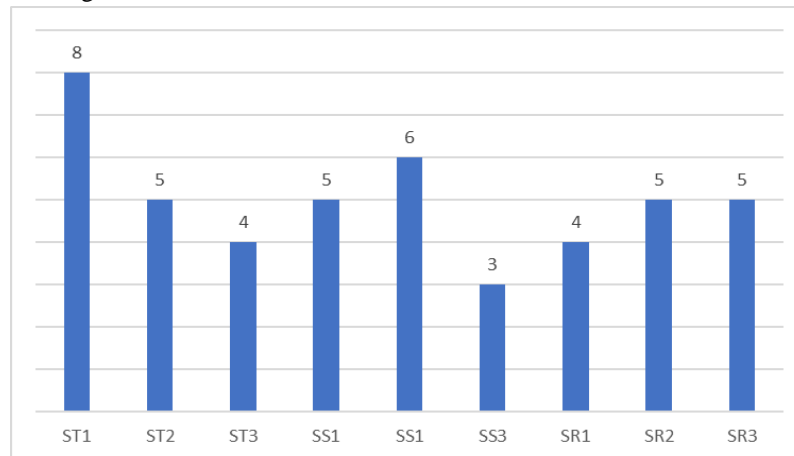


Figure 2: Number of Indicators Filled by Every Subject

From Figure 2 it can be seen that the bar chart has fluctuations. In this sense, subjects who get high semester grades there is no guarantee that the teaching materials made will match the TaRL component higher than subjects who get low semester grades. Thus, it can be said that it is not a guarantee that students whose scores are high at the end of the semester are able to make teaching materials that are in accordance with the TaRL component. However, it is certainly also a natural thing because indeed the final semester grades are indeed taken from several assignment grades that have been carried out by the subject. Final grades can be obtained from assignment grades, daily test scores, midterm exam scores, end-of-semester exam scores, and the value of a series of activities, such as essay writing, practice, homework, class participation, and others. The final grade given to students can be said to be the conclusion of the values of the work they have done (Sani, 2022).

Making teaching materials with TaRL has many challenges. That's because this new approach is very complex and does have to have adjustments to be made. Basically, the character and ability of students must be different, plus in the process, they must encounter less than ideal conditions. This is an obstacle to implementing TaRL in making teaching materials (Mubarokah, 2022).

The interesting thing from this discussion is that there is a tendency about the subject's understanding of TaRL with the suitability of the teaching materials they make. Those who have a good understanding of TaRL turn out that the teaching materials they make also have a high compatibility of TaRL components. It is certainly a consideration that the task of TaRL-based teaching material manufacturing products must be side by side with interviews about the understanding of the product maker. This is important because not all learners have a very good level of honesty, of course there are those who have a bad level of honesty (Situmorang & Nurrahman, 2019). Even though the main purpose of education is to form a good character (Omeri, 2015).

5. Conclusion

The subjects studied tend to create exercises and activities that are appropriate to the student's level of understanding, but the teaching materials are still made the same for all students with different levels of understanding. We recommend that teaching materials also need to be adjusted to the level of student understanding because teachers need to design a positive learning environment and learning experience in order to arouse student interest, motivation, participation, and confidence.

Indicators to identify students who need special attention need to be included in teaching materials in learning with the TaRL approach. Guidelines for adapting teaching materials for students who can understand the material sooner or later than the estimated time also need to be included in teaching materials for learning with the TaRL approach. This is important in anticipation so that teachers can intervene early as a form of positive support for all students so that learning objectives can be achieved and all students can have the competencies set. Further research is needed to find gaps in the difficulty of pre-service PPG teachers in formulating teaching materials needed by students according to their respective levels of understanding.

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Appendix 1: The Final Item of the SSS

No.	Code	Items
1	TETS	Lecturers should organize the classroom before and during learning in a neat manner and orderly manner.
2	ReaETS	Lecturers need to use innovative, case-based, problem-solving, and project-based learning methods.
3	ReaETS	Lecturers must immediately to students who experience difficulties in learning and provide necessary assistance.
4	AETS	Lecturers are required to Use current, reliable, and easily accessible sources for lecture materials.
5	EETS	Lecturers must create a comfortable learning atmosphere for all student.
6	TPETS	Staff need to organize the workspace and equipment to show readiness to serve students' academic administration needs.
7	ResPTS	Staff must always be agile in providing academic administration services to students.
8	ResPTS	Staff should be responsive when students convey administrative needs that need to be resolved.
9	APTS	Staff must have reliable skills to provide good administrative services to students.
10	EPTS	Staff should show a polite attitude when treating students who require administrative services.
11	TEAAS	The classroom where lectures are held or the laboratory where practice and practicums are held and the equipment must look representative.
12	ResEAAS	Furniture (desks, chairs) and equipment in the classroom must be available in sufficient quantities and well maintained.
13	ResEAAS	Lecture rooms and facilities must be available if there is a sudden need.
14	AEAAS	The laboratory or practice room should be equipped with modern equipment in sufficient quantities for learning.
15	EEAAS	Sanitary facilities (toilets) must be available in sufficient numbers, easily accessible, and kept clean.
16	TPAAS	Places of worship facilities should be available in sufficient capacity and easily accessible to students.
17	ResPAAS	Lecturers always arrange the classroom carefully to create a conducive learning atmosphere.
18	ResPAAS	Lecturers always apply contemporary learning methods, problem-solving, case discussions, and projects.
19	APAAS	Lecturers are aware of students' difficulties in learning and immediately assist.
20	EPAAS	Lecturers provide up-to-date and easily accessible learning materials and resources.
21	TEF	Lecturers always create a fun and comfortable learning atmosphere.
22	ReaEF	Staff organize working conditions neatly to facilitate service to students.
23	ReaEF	Staff provide administrative services deftly by their main duties.
24	AEF	Staff respond quickly when students need help with paperwork or completing documents.
25	EE1F	Staff demonstrate high skills in providing administrative services.
26	EE1F	Staff provide full academic administration services with friendliness.
27	TPF	The classrooms where lectures are held or the laboratories where practicums are carried out and their equipment look classy.
28	ResPF	The lecture rooms and their furniture and other equipment are always well maintained and in sufficient quantities.
29	ResPF	Whenever there are other incidental needs, space in one of the buildings and equipment are always available.
30	APF	The laboratory or practice room has modern equipment and is sufficient in quantity.
32	EE1F	Sanitary facilities (toilets) are always clean, easy to reach, and available in adequate quantities.
32	EEP2F	Places of worship facilities are provided in adequate capacity and are easily accessible.