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# The Analysis of Problems and Needs of Educational Information Technology of Thailand National Sports University

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## Abstract

The objectives of this study were to 1) investigate the problems surrounding the use of information technology in education at Thailand National Sports University Chon Buri Campus and 2) determine the university's information technology needs. The quantitative method was used to investigate the problems and needs associated with the use of information technology in education at Thailand National Sports University Chon Buri campus. A questionnaire was used to collect data from 92 individuals who worked at Thailand National Sports University's Chon Buri Campus as executive administrators, lecturers, and support staff. The study's findings indicated that the priority was placed on the design of educational technology that aided in teaching and learning. Following that, there was a need in designing educational technology to support research and educational technology designed to support academic services.

**Keywords:** Problems in the Use of Information Technology for Education, The use of Information Technology for Education, Higher Education Institutions

## 1. Introduction

The importance of developing a knowledge base of Information and Communication Technology (ICT) in society has become widespread over the last decade due to economic and social activities associated with globalization's push to become an intelligent society. There is a need for the development and intelligent use of information and communication technology to support economic and social development in order to create a more sustainable and stable knowledge and innovation base. These changes have resulted in increased national and global awareness and the allocation of resources to the management of the social affairs in order to keep up with the changes (Jonathan, Charles and Isak, 2013).

The Twelfth National Economic and Social Development Plan (2017-2020) focuses on strengthening national immunity in order to prepare people, society, and the country's economic system to adapt appropriately to the effects of change. Additionally, Thai society has access to resources and benefits from equitable economic and

social development, as well as the creation of economic opportunities through knowledge, innovative technology, and creativity, all of which contribute to Thai society's development for sustainable happiness in accordance with the sufficiency economy philosophy.

The significant problems and impediments to the development of people and society in Thailand are the current educational problem, which discovered that the current need for information technology in higher education institutions is to prioritize the development of materials and equipment over the use of content in technology media and information for teaching. The media used are out-of-date and low-quality. There is a shortage of personnel with the necessary knowledge and ability to use technology to develop teaching materials and organize the learning process for teachers and students to apply knowledge of educational technology to the teaching and learning process. Additionally, higher education institutions lacked adequate support for information technology-related activities such as media creation and development. This was in conflict with teachers' and students' self-study at Thailand National Sports University Chon Buri Campus. There is a policy in place to encourage the continuous development of information technology for educational purposes in order to develop into a higher education institution capable of producing graduates with the expertise and skills necessary for employment after graduation (National Sports University Development Plan, 2022).

Therefore, it is critical to investigate the issue and the necessity of utilizing information technology in education at Thailand National Sports University Chon Buri Campus. The findings can be used to guide future development of Thailand National Sports University Chon Buri campus's use of information technology for education.

## **2. Objectives**

1. To investigate the problems surrounding the use of information technology in education at Thailand National Sports University Chon Buri Campus.
2. To determine the information technology needs of Thailand National Sports University Chon Buri Campus.

## **3. Scope**

### *Population and Sample Group*

1. The population consisted of 117 individuals who worked at Thailand National Sports University Chon Buri Campus as executive administrators, lecturers, and support staff.
2. The research sampled 92 individuals who worked at Thailand National Sports University Chon Buri Campus as executive administrators, lecturers, and support staff. They were selected using a simple random sampling technique. Krejcie and Mogan (1970) table was used to determine the sample size (1970).

## **3. Research Method**

The study was a survey research aiming to identify the problems and needs surrounding the use of information technology in education at Thailand National Sports University Chon Buri Campus. The data from the questionnaire were collected, analyzed, summarized in order to ascertain the educational needs for the use of information technology at Thailand National Sports University's Chonburi Campus.

## **4. Research Instrument and Data Collection**

The questionnaire contained questions on a rating scale. They were closed-ended questions and open-ended questions with a consistency index of 0.91 in order to use the results of the Thailand National Sports University Chon Buri Campus's analysis of problems and needs in the use of information technology for education as a guideline for providing promotion and support (Boonchom Srisaat, 2010).

## 5. Conclusion

The following summarizes the findings of the study on "Problems and Needs for the Use of Information Technology in Education at Thailand National Sports University Chon Buri Campus":

In terms of hardware, issues with the use of information technology for education are minor. However, the specifications of the computers distributed by the government are out of date. Sufficient funds were allocated for software used in teaching and learning to promote the use of information technology. However, it continues to lack a support system for online teaching and learning, particularly in the realms of augmented reality and ubiquitous learning.

In terms of Peopleware, the use of information and communication technology for educational purposes at Thailand National Sports University Chon Buri Campus will be unsuccessful without personnel who possess the necessary knowledge, abilities, and skills to apply them to the benefit of educational institutions and students. The findings indicated that Thailand National Sports University Chon Buri Campus personnel continue to lack knowledge and understanding of how to use information technology systems that support teaching and learning. The majority of personnel had between one and five years of experience using information technology and communication for educational purposes.

According to the findings of a study on the need for educational technology, the majority of personnel at Thailand National Sports University Chon Buri Campus are focused on the design of educational technology to support teaching and learning. This was followed by the design of educational technology to aid in research and the design of educational technology to aid in academic services.

The study's findings are presented as follows: Designing educational technology to aid in teaching and learning was considered, it was determined that the majority of staff members require officers to provide guidance, solve technical problems, followed by the need to support the use of information technology specifically for teaching and learning, as well as the desire to establish a unit dedicated to educational technology support.

In terms of educational technology design to support research, the findings indicated that personnel had the greatest need for research and database support, followed by the need for search support programs, the ability to analyze and process research, and the need for technology support in consulting and exchanging research knowledge between researchers inside and outside the university.

In terms of educational technology design to support academic services, the study's findings indicate that personnel had an urge for educational technology that supports academic services that are most relevant to their target group. This was followed by the requirement for educational technology that supports academic services that adhere to the policy and the establishment of a system for monitoring academic services both inside and outside of Thailand National Sports University Chon Buri Campus.

## 6. Result and Discussion

According to the study on "Problems and Needs in the Use of Information Technology for Education at Thailand National Sports University Chon Buri Campus," the discussion can be drawn on several critical issues.

### *6.1. Problems with the use of information technology in education at Thailand National Sports University Chon Buri Campus*

6.1.1 Information technology hardware and software are insufficient to meet user needs and are incompatible with teaching-learning management in the modern era, which requires the use of information technology systems for teaching-learning management.

6.1.2 Competent personnel and management skills; employee use of digital media, including Google for Education; use of technology in the virtual world combined with augmented reality and ubiquitous learning in teaching and learning; and application of technology was at a moderate level.

Thus, educational institutions must be aided and assisted in these five areas: hardware, software, personnel information, and operating procedures. Personnel involved in educational information technology is critical to the success of an information system. The more knowledgeable individuals are about educational information technology, the greater their opportunity to utilize information systems and computer systems to their full potential and cost. For group-level information systems and complex organizations, computer-related personnel must be directly involved in the development and maintenance of the system. Operating procedures are something that must be understood in order to function properly, as it is critical to have a clear operating system for the user or the personnel involved (Ministry of Education, Permanent Secretary's Office, 2011).

### *6.2. The need for the use of information technology for education at Thailand National Sports University Chon Buri Campus*

6.2.1 At Thailand National Sports University Chon Buri Campus, there is still a need to encourage the development of educational technology to assist with teaching and learning. This is because learning and the use of educational technology to facilitate teaching and learning are still in their infancy. As a result, agencies and personnel are required to provide guidance and solutions for the effective use of educational technology to support teaching and learning. This is consistent with Heritage's (2010) assertion that teaching management through the use of modern technology has created a slew of difficulties for teachers. However, resolving the issue will require experts to provide guidance and counseling on the use of educational technology in order for teachers to comprehend and effectively apply it to teaching and learning.

6.2.2 In terms of educational technology design needs to support research, the university employees should be supported in research and search databases in browsing Support Program Requirements, analyzing and processing research. This includes technology support, consulting and knowledge exchange between researchers inside and outside the university. These are critical issues for the advancement of research in tertiary institutions. According to Bailey and Heritage (2008), research at the university level requires database support and knowledge exchange as a driving force in the creation and development of research results in order to obtain current research results. It contributes to the development of a learning society through its primary mission as a higher education institution (McMillan, 2008).

6.2.3 In terms of educational technology design to support academic services, personnel require educational technology that enables academic services tailored to the target group. The requirement for educational technology that enables policy-compliant academic services and building a method for internally and externally monitoring the results of academic services. Academic service is another primary mission of the development of higher education institutions (Office of the Permanent Secretary, Ministry of Education, 2011), which drives academic services that require developing educational technology to support academic service at the Academic Service database for easy tracking and planning of future academic services (McMillan, 2008).

## **7. Recommendation**

The findings of this research indicate that the examination of educational challenges and the demand for information technology at Thailand National Sports University Chon buri Campus takes place at the campus level. Further research at the university level may be conducted in the future to serve as a guide for policymakers concerned with the development of educational technology.

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