Promoting teachers' technology usage in Nongkungsri 1 under Kalasin Primary Educational Service Area Office 2

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Abstract

This research aims to (1) study the promotion of teachers' technology use skills in Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office, District 2, and (2) compare the promotion of teachers' technology use skills. In the Nong Kung Si Network Center 1, under the Kalasin Primary Educational Service Area Office, Area 2, according to teachers' assessments, classified by age and teaching experience. This research is survey research. The research population includes teachers in Nong Kung Si Network Center School 1 under the Kalasin Primary Educational Service Area Office, Area 2, academic year 2023, numbering 128 people. The sample size was determined according to Krejcie and Morgan's table. Using a simple random method. The sample used in this research was 97 teachers in Nong Kung Si Network Center School 1 under the Kalasin Primary Educational Service Area Office, Area 2, for the academic year 2023. The research instrument was a 5-level rating scale questionnaire. The statistics used were data analysis, including frequency, percentage, mean, and standard deviation, as well as a t-test. The study found that (1) promoting teachers' technology use skills in the Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office 2 is going well overall and in each area; and (2) comparing the results of promoting teachers' technology use skills in the Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office, Area 2, based on teachers' evaluations, divided by age. Overall, each aspect is not different.

Keywords: Nong Kung Si network; promotion; teachers' skills; technology

Introduction

In today's era, information and communication technology play a huge role in people's daily lives. Whether it is everyday life, work, or even education, in a world where technology is developing at a rapid pace, the Ministry of Education has realized that the application of digital technology in educational management helps to increase the efficiency of management decision-making and solve various problems under the concept of "Anywhere, Anytime, Any Device" to change the management process within the ministry. The digital system will organize education in a way that is convenient, fast, cost-effective, and accessible anywhere, anytime, and on any device. as well as being able to link the work of agencies within the ministry to the same database. Administrators and personnel within the Ministry of Education have access to a large database. quickly and up-to-date. This makes it possible to increase efficiency in making decisions correctly. To be able to monitor and evaluate the performance of various projects, the Ministry of Education has created a digital action plan for education in 2020–2022, in line with government policy. and the current digital transformation context To use as a guiding framework and the direction to drive operations in promoting and developing digital technology for education in the Ministry of Education. (Ministry of Education, 2021)

A digital action plan for education. The Ministry of Education 2020-2022 (MOE Digital Transformation for Education Action Plan 2020-2022) has identified five key strategies for digital development in education, as follows: (1) Strategy 1: Develop efficient digital infrastructure. high level of coverage for all departments and educational institutions (2) Strategy 2: Create opportunities, equality, and equality in education with digital technology. (3) Strategy 3: Develop management to become a digital agency. (4) Strategy 4: Produce and develop manpower to support the digital economy and society. (5) Strategy 5: Develop digital technology for education, research, and innovation. (Ministry of Education, 2021)

Although information and communication technology will be increasingly used in education in the present era, this aspect is supported by many policies. But it cannot be denied that there are still problems and obstacles. Standards for developing information and communication technology for education. The main problems are as follows: (1) Students, learners, teachers, and all personnel still cannot access and take advantage of information technology in education from anywhere, anytime, with quality, and it can be stable and safe. The development of information technology infrastructure, which includes a central data center, an Internet network system, and technology that helps support education as well as digital tools, Distance education services There is still insufficient size. can't cover all areas and is still unable to provide continuous services. (2) Inequality and inequality in education through information technology This is because they are still unable to develop appropriate competencies or educational services through digital technology, which can be easily and conveniently accessed and used for lifelong learning. Every day, it covers people and every target group. (3) The Pracharat model

lacks a network of cooperation in information technology development, which prevents knowledge transfer and application to educational agencies. capable of expanding knowledge for both citizens and society. It is still not possible to make educational institutions and educational agencies work as if they were one organization with digital technology. (4) Developing manpower and personnel to have knowledge, ability, and competency in creative information technology. and in line with needs is still insufficient; and (5) there is a lack of development of digital technology for creating research that can be further used in education. (Ministry of Education, 2021)

Kalasin Primary Educational Service Area Office 2 aims to develop schools that provide standard-quality education. To provide students with the necessary skills to solve problems, adapt, communicate, and work with others effectively. By emphasizing the use of information technology systems for maximum benefit. In this regard, the school must be prepared and have clear guidelines for using information technology in the institution's educational management. If there is no preparation, there is no studying to understand fully. Not organizing work accordingly There has been no development in personnel's ability to use information technology to its full potential. And without support for evolutionary progress, the school will not benefit as much as it should. This is to provide students with essential 21st-century skills in information technology. Increase opportunities and provide equal access to quality education. To develop a digital technology system for education for people of all ages. and develop an educational database that is standardized, connected, and accessible. (Kalasin Primary Educational Service Area Office 2, 2023)

From the importance of information technology to education and the problems mentioned above, the researcher is interested in and studied the promotion of technology use skills of teachers in Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office, District. 2. According to the school's strategic framework and the Digital Action Plan for Education, the Ministry of Education The findings of the study will provide information for improving, developing, and organizing the system for promoting teachers' skills in using technology in basic educational institutions to the highest quality and efficiency. To achieve the objectives and continue to develop the quality of education even further.

Objectives

1. To study the promotion of technology use skills by teachers in the Nong Kung Si Network Center 1, under the Kalasin Primary Educational Service Area Office 2.

2. To compare the promotion of teachers' skills in using technology in the Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office, Area 2, according to teachers' assessments, classified by age and teaching experience.

Literatus reviews

Promoting Teacher Technology Integration: Concepts, Theories, and Research

Technology plays a crucial role in contemporary society, impacting our way of life, work, and education. For modern-day teachers, effectively using technology in the classroom has become essential. Key concepts associated with promoting technology integration for teachers include the Technological, Pedagogical, and Content Knowledge Framework (TPACK), blended learning, personalized learning, and engaged learning. Constructivist learning theory and social learning theory both support the use of technology in the classroom. These theories emphasize that students learn best through hands-on activities, engagement, and interaction with others. Technology can facilitate student participation in learning activities, foster creativity, and enhance collaborative learning.

Several research studies suggest that technology integration in classrooms positively impacts student learning outcomes, critical thinking skills, motivation, teacher knowledge, skills, and attitudes towards technology use. Additionally, research indicates that technology-based professional development programs effectively improve teacher knowledge, skills, and attitudes regarding instructional technology. Important strategies for promoting technology integration in schools include teacher development, technical support, and fostering a technology-supportive culture. Encouraging technology use among teachers necessitates collaboration from all stakeholders, including government agencies, private institutions, and educational institutions. This collaboration is crucial for developing teacher skills, providing resources, and creating an environment conducive to effective technology integration.

Conceptual Framework

From studying documents and conducting research on promoting teachers' skills in using technology in the Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office 2, the researcher has defined the research scope, as shown in Figure 1.
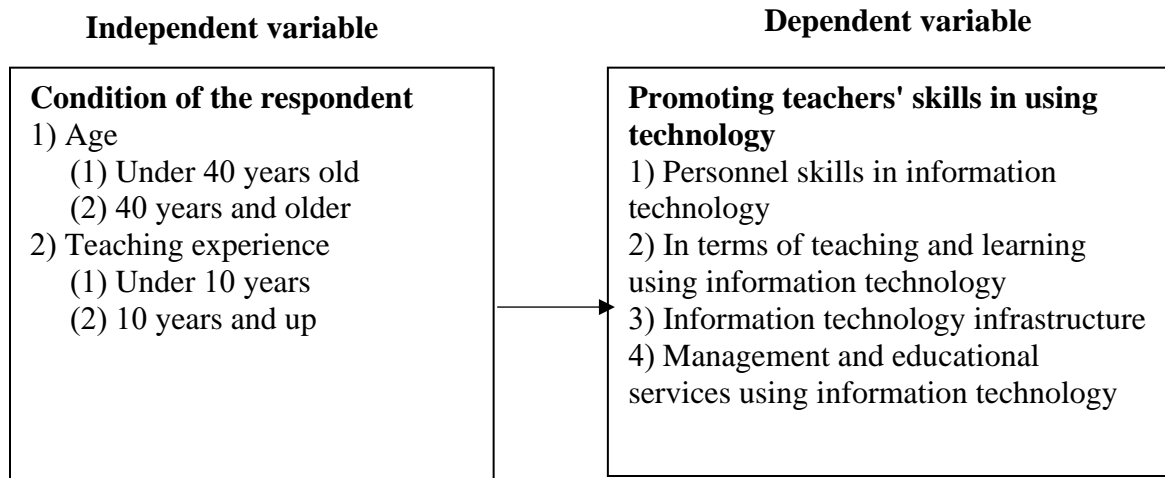
Independent variable

Dependent variable

Condition of the respondent
1) Age
    (1) Under 40 years old
    (2) 40 years and older
2) Teaching experience
    (1) Under 10 years
    (2) 10 years and up
	Promoting teachers' skills in using technology
	1) Personnel skills in information technology
	2) In terms of teaching and learning using information technology
	3) Information technology infrastructure
	4) Management and educational services using information technology

Figure 1 : Conceptual framework

Methods

 1. *Population and sample.* The population used in the research includes: There are 128 teachers in the Nong Kung Si Network Center School 1 under the Kalasin Primary Educational Service Area Office 2, working in the 2023 academic year. Sample group Those used in the research were teachers in the Nong Kung Si Network Center School 1. Under the Kalasin Primary Educational Service Area Office, Area 2 , working in the 2023 academic year, 97 people are using Krejcie and Morgan's sample size table (Krejcie & Morgan, 1970: 608) using a simple random sampling method.
 2. *Research tools.* Tools used in research on promoting the skills in using the technology of teachers in Nong Kung Sri Network Center School 1 Under the jurisdiction of the Kalasin Primary Educational Service Area Office, Area 2. It is a single questionnaire, divided into 2 parts as follows. Episode 1 It is a questionnaire about the personal status of respondents. The independent variables include age and teaching experience, which is designed in a closed-ended questionnaire. Part 2 Questionnaire regarding the promotion of technology use skills of teachers in the Nong Kung Si Network Center School 1, under the Kalasin Primary Educational Service Area Office, Area 2, in 4 areas, in the form of a rating scale questionnaire (Rating Scale) based on the Liker concept. The (Likert, 1961)
 3. *Data collection and analysis.* The researcher has studied the principles, concepts, theories, documents, and related research and used the results to create a tool according to the research concept. To study the promotion of technology use skills of teachers in Nong Kung Si Network Center School 1, under the Kalasin Primary Educational Service Area Office, District   2, to be used in creating a questionnaire.

By applying Mr. Sulaiman Awae's questionnaire (2021), and then taking the questionnaire to 3 experts to check content consistency (Content validity). By using the method of finding the index of consistency (IOC) of the questionnaire. There is a criterion for considering the opinions of experts. The acceptable consistency value must be at a value of 0. 67 or more. Then, take the questionnaire that has been checked by experts and improve it according to the suggestions. and use it for testing (Try out) with a population that is not the sample, which is in the Nong Kung Si Network Center 2 School. Under the jurisdiction of the Kalasin Primary Educational Service Area Office, Area 2, a total of 30 people received a reliability value of .981. A total of 97 questionnaires were delivered via the online system. along with a letter requesting permission to collect research data for Nong Kung Si Network Center School 1, under the Kalasin Primary Educational Service Area Office 2, is a sample group. and collected a total of 97 questionnaires, accounting for 100 percent. After that, the researcher used the information obtained to check for accuracy and completeness. To further analyze the data with ready-made computer programs. The statistics used in data analysis include frequency, percentage, and average. standard deviation and t-test (independent).

Results

      1. Results of the data analysis of respondents regarding promoting teachers' skills in using technology in Nong Kung Si Network Center School 1 under the Kalasin Primary Educational Service Area Office, District 2, with a total of 97 teachers. People accounted for 100 percent, with the majority being teachers aged 40 years and over, numbering 62 people, accounting for 63.92 percent, followed by 35 people who were younger than 40 years old, accounting for 36.08 percent, and 55 had teaching experience of 10 years or more. People account for 56.7%, followed by those with less than 10 years of teaching experience (42 people), accounting for 43.30%.

      2. The analysis of data on promoting teachers' skills in using technology in the Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office 2 revealed that the overall level was high. When considering each aspect, it can be summarized as follows:

      2.1 Promoting teachers' skills in using technology in the Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office 2 Information technology personnel's skills Overall, it is at a high level. When considering each item, it was found that the item with the highest average value is integrating information technology systems to develop and evaluate personnel performance, followed by creating appropriate incentives and career advancement opportunities for personnel performing development duties. information technology and setting a systematic and continuous information technology training plan for personnel. The item with the lowest average value has personnel directly responsible for information technology work.

      2.2 Promoting teachers' skills in using technology in the Nong Kung Si Network Center 1, under the Kalasin Primary Educational Service Area Office 2 Overall,

teaching and learning using information technology and communication is at a high level. When considering each item, it was found that the item with the highest average value was organizing teaching and learning with information technology in a variety of formats to meet the needs of students, followed by promoting and supporting the creation and dissemination of learning media. know information technology Including a variety of knowledge for students and communities, as well as promoting the teaching and learning of information technology that emphasizes practical work that can be used the item with the lowest average value is the continuous monitoring, evaluation, and reporting of the results of teaching and learning using information technology.

2.3 Promoting teachers' skills in using technology in the Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office 2 Information technology infrastructure Overall, it is at a high level. When considering each item, it was found that the item with the highest average value was the promotion and support of the parent agency in the development of technological infrastructure. Second is the support of the information technology budget for infrastructure development and promoting and supporting the preparation of learning resources in information technology and other areas that have applications in information technology. The item with the lowest average value is sufficiency in information technology software and various applications that are modern and appropriate for use. without violating copyrights.

2.4 Promoting teachers' skills in using technology in the Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office 2 Information and communication technologiesOverall, it is at a high level. When considering each item, it was found that the item with the highest average value was the determination of the development plan for management and educational services using information technology in the medium-term operational plan (3-5 years) and the operational plan. Second, organize information technology laboratories in a way that is proportionate and conducive to learning. and systematic collection of innovative information technology teaching media that can be searched easily, according to the educational institution's potential. The item with the least average value is monitoring, evaluating, and continuously reporting on the results of educational management and educational services using information technology.

3. Comparative results of promoting teachers' skills in using technology in Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office, Area 2, according to teachers' assessments, classified by age and teaching experience. It was discovered that teachers in the Nong Kung Si Network Center 1, under the Kalasin Primary Educational Service Area Office 2, had different ages and teaching experiences. Evaluate the promotion of teachers' skills. Regarding the use of technology in the Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office 2, overall and in each aspect. no different.

Discussion

1. Promoting teachers' skills in using technology in the Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office 2. The results can be discussed. in each side as follows:

1.1 Promoting teachers' skills in using technology in the Nong Kung Si Network Center 1, under the Kalasin Primary Educational Service Area Office 2 Information technology personnel's skills Overall, it is at a high level. When considering each item, it was discovered that the integration of technology systems has the highest average value. Information is used to develop and evaluate personnel's performance, followed by appropriate incentives and career advancement opportunities for personnel performing information technology development duties. and setting a systematic and continuous information technology training plan for personnel. The item with the lowest average value has personnel directly responsible for information technology work. This may be because Nong Kung Si Network Center 1, under the Kalasin Primary Educational Service Area Office 2, has placed importance on the skills of information technology personnel. The emphasis is on using information technology as a tool for developing and evaluating personnel performance. This impacts the development of motivation and career opportunities. It is necessary to establish a continuous information technology training plan for personnel. For personnel to have the ability to use information technology effectively, this is in line with the research of Chanidapa Kleebthong (2022), who studied the technological leadership of school administrators that affects their competency. Information technology in teacher education Under the jurisdiction of the Kanchanaburi Primary Educational Service Area Office, Area 1, the matter of teachers' educational information technology competency was found to be at a high level both overall and in each aspect. It is also consistent with Nathiya Phattharawangfa, Natjaree Charoensuk, and Sathaporn Sangkhaosuttirak's (2020) research on promoting school administrators' use of information technology for teaching, which affects teachers' 21st-century learning management skills in schools under the Primary Educational Service Area Office. A study of Nakhon Si Thammarat District 4 found that high-level technology personnel development

1.2 Promoting teachers' skills in using technology in the Nong Kung Si Network Center 1, under the Kalasin Primary Educational Service Area Office 2 Overall, teaching and learning using information technology and communication is at a high level. When considering each item, it was found that the item with the highest average value was organizing teaching and learning with information technology in a variety of formats to meet the needs of students, followed by promoting and supporting the creation and dissemination of learning media. know information technology Including a variety of knowledge for students and communities, as well as promoting the teaching and learning of Information technology that focuses on actual operations can be put to good use. The item with the lowest average value is the continuous monitoring, evaluation, and reporting of the results of teaching and learning using information technology. This may be because Nong Kung Si Network Center 1, under the Kalasin Primary Educational Service Area Office 2, places importance on teaching and learning using information technology. It

focuses on organizing teaching and learning with information technology in a variety of formats that meet the needs of students. To encourage students to have an intention, understand the content better, and place an emphasis on the actual effort It can also allow students to see the picture. It influences the speed at which the content is understood. and can make students remember the content better. Consistent with the research of Nathiya Phattharawangfa, Natjaree Charoensuk, and Sathaporn Sangkhaosuttirak (2020), this is a research study on promoting the use of information technology for teaching by school administrators that affects teachers' 21st-century learning management skills in schools under the area office. The Nakhon Si Thammarat Primary Education District 4 study found that school administrators promoted the use of information technology for teaching at a high level. Similar to Sarutta Waewsuwan and Urai Suthiyam's (2021) research on the role of school administrators in encouraging teachers to use educational technology. Under the jurisdiction of Chonburi Primary Educational Service Area Office 1, the research findings revealed that in terms of using technology and media to organize teaching and learning at a high level.

 1.3 Promoting teachers' skills in using technology in the Nong Kung Si Network Center 1, under the Kalasin Primary Educational Service Area Office 2 Information technology infrastructure Overall, it is at a high level. When considering each item, it was found that the item with the highest average value was the promotion and support of the parent agency in the development of technological infrastructure. The second is the support of the information technology budget for infrastructure development, as well as promoting and supporting the preparation of learning resources. Information technology and other areas that have applications in information technology The item with the lowest average value is sufficiency in information technology software and various applications that are modern and appropriate for use. without violating copyright. This may be because Nong Kung Si Network Center 1, under the Kalasin Primary Educational Service Area Office 2, sees that the information technology infrastructure is another important factor in promoting teachers' skills in using technology due to the information technology infrastructure's powerful modernity and sufficient for that need. As a result, teachers can use technology thoroughly, quickly, and safely. It also has an impact on teachers' work efficiency and results. This aligns with Laddawan Srinuanchan's (2018) research on guidelines for developing technology use. Information and communication technology are available at Wat Lanna Bun School. The research found that the area of information and communication technology infrastructure at a high level is in the same direction as the research of Nathiya Phattharawangfa, Natjaree Charoensuk, and Sathaporn Sangkhaosutthirak (2020) on promoting the use of information technology for teaching and learning by school administrators that affect skills. Learning management in the 21st century for teachers in schools under the Nakhon Si Thammarat Primary Educational Service Area Office, Area 4. The research results found that, in terms of infrastructure, there is a high level of promotion.

 1.4 Promoting teachers' skills in using technology in the Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office 2 Information and communication technologies. Overall, it is at a high level.

When considering each item, it was found that the item with the highest average value was the determination of the development plan for management and educational services using information technology in the medium-term operational plan (3-5 years) and the operational plan. Second, organize information technology laboratories in a way that is proportionate and conducive to learning. and a systematic collection of innovative information technology teaching media that can be easily searched according to the educational institution's potential. The item with the least average value is monitoring, evaluation, and continuous reporting on educational management and educational services using information technology. This may be because Nong Kung Si Network Center 1, under the Kalasin Primary Educational Service Area Office, Area 2, promotes teachers' skills in using technology. need to live. Educational management and services using information and communication technology To have systematic, continuous development, as well as the ability to follow the results of skill promotion. Consistent with Panisara Intachum's research, Sangwarn Wangchaem and Chanchai Yomsungnoen (2023) investigated guidelines for developing the use of technology in learning management at Ban Hongrat-Withaya School, Lamphun Province. The results of the research showed that overall, each aspect is at a high level. It is also consistent with Ratchanok Thairak and Somjai Suebsao's (2023) research on the use of information and communication technology for the administration of educational institutions under the Prachuap Khiri Khan Primary Educational Service Area Office 1, which found that overall and each aspect is at a high level.

2. Comparative results of promoting teachers' skills in using technology in Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office, Area 2, according to teachers' assessments, classified by age and teaching experience. It was found that teachers in the Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office 2 were of different ages and teaching experiences. Evaluating the promotion of teachers' skills in using technology in the Nong Kung Si Network Center 1 under the Kalasin Primary Educational Service Area Office 2. Kalasin Primary Education, Area 2, overall and in each aspect no different This may be due to the fact that teachers of all ages and all periods of teaching experience In the Nong Kung Si Network Center 1, under the Kalasin Primary Educational Service Area Office 2, there is a consensus that the Nong Kung Si Network Center 1, under the Kalasin Primary Educational Service Area Office 2, promotes teachers' skills in using technology. This is very consistent with Sarutta Waewsuwan and Urai Suthiyam's (2021) research comparing the opinions of teachers with various educational qualifications and teaching experiences. There are opinions about the role of administrators in promoting the use of educational technology. Overall, under the jurisdiction of Chonburi Primary Educational Service Area Office 1, each aspect is not different. It is also consistent with Sulaiman Awae's (2021) research on skill promotion. Teachers' use of technology in educational institutions Under the jurisdiction of Narathiwat Primary Educational Service Area Office 1, the research found that teachers with different ages and teaching experiences were evaluated both overall and in each aspect. no different.

Suggestions

1. Suggestions from research

1.2 Personnel skills in information technology Schools should focus on equipping teachers with technological skills appropriate to the times. capable of using a variety of technologies more efficiently.

1.2 When it comes to teaching and learning using information technology, Schools should be given more in terms of teaching and learning using the system. More electronic devices, such as books and electronics, follow. Using information technology, continuously evaluate and report on the results of teaching and learning operations.

1.3 Information technology infrastructure A budget should be prepared for the school's information technology system development. To be more efficient, there are sufficient quantities for use by teachers in schools.

1.4 Management and educational services using information and communication technology Schools should have designated competencies in the application of information technology by educational personnel as part of the performance evaluation. There is also continuous follow-up. The use of research results in the teaching and planning of educational administration in the field of technology.

2. Suggestions for future research

2.1 There should be research on promoting skills in using technology among teachers in schools under other jurisdictions so that they can be aware of the conditions of skill promotion. Each school's teachers use technology. For using data in research and development, promoting skills in using technology. among teachers in a sustainable way

2.2 There should be research on the differences in teaching efficiency within schools that do and do not promote learning. Skills for using technology: teacher information

2.3 There should be research on information technology necessary for teachers' actual use. Focusing on efficiency and necessity is consistent with each school's budget.

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