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Strategies for Enhancing Digital Skill of Primary School Administrators Under the Office of the Basic Education Commission

Pimonwan Romvapee¹, Nawattakorn Homsin^{2*}, Chatjariya Bailee^{3*}

Abstract

The purposes of this research were 1) to study the components of strategies for enhancing digital skills of primary school administrators under the office of the basic education commission, 2) to assess the needs of strategies for enhancing digital skills of primary school administrators under the office of the basic education commission, 3) to create strategies for enhancing digital skills of primary school administrators under the office of the basic education commission. The research design was carried out in 3 phases: Phase 1: studying the components of digital skills of primary school administrators from document, textbooks, and in-depth interviews with 9 experts. Phase 2: assessing the needs of strategies for enhancing digital skills of primary school administrators by 375 administrators using a questionnaire and prioritizing with PNI modified technique. Phase 3: Constructing strategies for enhancing digital skills of primary school administrators using TOWS Matrix technique and focus group discussion with 9 experts. The results of this research were as follows:

1. *The component of digital skills of primary school administrators under the office of the basic education commission consisted of 7 components: 1) digital vision building skills 2) organizational resource management skills 3) team work skills 4) digital organization culture building skills 5) communication and digital public relations 6) digital literacy skills and 7) professional use of digital tools.*
2. *The Needs of strategies for enhancing digital skills of primary school administrators under the office of the basic education commission were at a high level.*
3. *The strategies for enhancing digital skills of primary school administrators under the office of the basic education commission consisted of 2 strategic issues, 4 indicators,*
- 2 projects. *Strategy 2: Increase opportunities to access technology to increase work potential, consisted of 2 strategies,*
- 3 indicators, 3 projects. *Strategy 3: Develop digital skills to be able to use technology and communication media effectively, consisted of 3 strategic issues, 5 strategies, 4 indicators, 4 projects, and strategy 4: develop digital technology tools for management, consisted of 2 strategic issues, 5 indicators, 2 projects.*
4. *The strategic evaluation results of the strategies for enhancing digital skills of administrators the primary school under the office of the basic education commission in 4 aspects: suitability, possibility, value and benefit were at the high level.*

Introduction

Background and Significance of the Study

Nowadays, the world has changed rapidly from the analog era to the digital era and the robotic era resulted in living and working were influenced by digital technology. The government officials must adopt to the changes in order to prevent the culture shock due to the shift in technology. The skill and use of digital technology was the basic digital skill which plays significant roles in helping working, communicating and collaborating with others.

Learners in the digital age should be trained in the skills to acquire knowledge and use it properly. As same as The National Education Act of 1999, amended (No. 3) in 2010 mentioned that the educational management must be develop Thai people to be perfect human beings in terms of body, intelligence, knowledge, morality, ethics and culture in life as long as to be able to live with others happily, be proud of being Thai and keep up with the changes in the world today.

¹ Doctor of Philosophy Program in Educational administration Udonthani Rajabhat University

² Dr., Udonthani Rajabhat University

³ Associate Professor Dr., Udonthani Rajabhat University. Email: Pimolvan30@gmail.com

The educational management to develop professional skills corresponding with the local context (Royal Thai Government Gazette, 2018) and the statistic on the use of information technology and accessed to the internet from the National Statistical Office (2019) indicated that the students in the 15-24 age group of Thai population has been dramatic increased in accessing to the Internet, which was considered as a key component of accessing digital technology, represented 93.5 percent, but educational institutions were still unable to develop people to have knowledge and kept up with changing technology.

Therefore, the key characteristics of school administrators in the digital age was very important to educational administration because the school administrator was an important person to the success of various aspects in the school. Ritjaroon (2011) indicated that the educational administration nowadays, the administrators need to developed in line with the changing situations, especially the educational administration in the digital age. The digital characteristics of administrator were important for school administrators in order to apply to educational administration appropriately. DoDEA (2014 :2) mentioned that the competence of effective leadership in the 21st century administrators was the ability to use digital modal to support teachers' teaching and learning for learners. Boonkrong (2017: 1) indicated that the educational management approach of Thailand has a tendency towards the Thailand 4.0 era in many aspects, included the development of creativity in the process of teaching and learning to develop innovation, professional of educational personnel, promotion and development of digital technology for education and knowledge development and career advancement cooperation (Fernandes et al., 2022).

As same as, the Digital Economy and Society Development Plan (2016 : 50 - 52), the fifth strategy, mentioned that developing manpower to be ready for the digital economy and society which gave priority to the development of all occupations working people both of government and private sectors to have the abilities to create and use digital technology in career and in personnel development of digital technology in order to have an international standards of knowledge and specific expertise to get a high-value employment in an era of digital technology. According to the above mentioned, the role of school administrator in digital age was inevitably related to digital technology and also one of the factors effected the digital characteristics of school administrators that were important to administration. Therefore, the administrators, teachers and education personnel should be developed skills, knowledges and use of digital technology (Digital literacy).

According to the aforementioned, the researcher was therefore interested in the strategies for enhancing digital skills of primary school administrators under the Office of the Basic Education Commission in order to use in planning and formulating policies to promote and develop performance in school effectively as well as improve the educational administration for school, communities, societies and students.

Research Objectives

1. To study the components and indicators of digital skills of primary school administrators under the Office of the Basic Education Commission.
2. To assess the needs of the strategies for enhancing digital skill of the primary school administrators under the Office of the Basic Education Commission.
3. To construct strategies for enhancing digital skills of primary school administrators under the Office of the Basic Education Commission.
4. To evaluate the strategies for enhancing digital skills of primary school administrators under the Office of the Basic Education Commission.

Research Methodology

The strategies for enhancing digital skills of primary school administrators under the Office of the Basic Education Commission used a mixed methods research design consisted of 4 phases.

Phase 1: Study the components of digital skills of primary school administrators under the Office of the Basic Education Commission.

1. Document Analysis Synthesis
2. Interviewed 9 experts

Phase 2: Assess the needs of the strategies for enhancing digital skill of the primary school administrators under the Office of the Basic Education Commission.

1. Studying the current states and desirable states by 374 administrators using a questionnaire.
2. Prioritizing with PNI_{modified} technique

Phase 3: Construct strategies for enhancing digital skills of primary school administrators under the Office of the Basic Education Commission.

1. Estimate the points to divided the mean maximum and minimum to find the intersection.
2. Group the needs and analyze strengths, weaknesses, opportunities, and threats.
3. Analyze strengths, weaknesses, opportunities, and threats using TOWS Matrix technique to formulate a strategy.
4. Drafting strategy by focus group discussion by 9 experts.

Phase 4: evaluate the strategies for enhancing digital skills of primary school administrators under the Office of the Basic Education Commission.

1. Assessing the feasibility of strategies implementation.
2. Evaluate the strategies by 15 experts.

Results

The components of digital skills of primary school administrators under the Office of the Basic Education Commission consisted of 7 components; 1) digital vision promoting skills 2) organizational resource management skills 3) teamwork skills 4) digital organization culture producing skills 5) communication and digital public relations skills 6) digital literacy skills and 7) professional use of digital tools skills.

Components	Definitions	Indicators
1) Digital vision promoting skills	The administrators who managed the organization towards the achievement of the organization's goals which were expected in the future to achieve the specific policy. The operations in school were able to create the digital technology strategies for using in operations.	1) The vision will show the wishes or expectations in the future of the organization based on current situations. 2) Setting the mission is defining the scope of work or roles and responsibilities of the organization. 3) Setting the goals, target or objective 4) Setting the policies and MOU in using digital technology.

2) Organizational resource management skills	The process of creating guidelines for school management both of environment and person in order to promote modern and efficient learning management.	1) Supporting classrooms and laboratories to have modern technology. 2) Promoting learning activities using digital technology to create innovation.
3) Teamwork skills	The systematical collaboration as a group with planning and defining the roles and responsibilities to the same goals and also respect to decision making for success.	1) Creating a working atmosphere that promotes the use of media and technology. 2) Creating an atmosphere for personnel learn together to enhance the potential in using media and technology.
4) Digital organization culture producing skills	In digital transformation, the administrators required to innovate and designed the processes and new ways of working. An innovative culture and collaboration was needed to accept technology. The administrators must be create the dynamics in using technology to become a normal learning and digital culture in organization, as well as providing and encouraging learners to learn thoroughly to promote innovation to the digital organization.	1) Using technology to improve effective working. 2) Creating innovations for using in management. 3) Accessing to information for working and making decisions. 4) Using digital platforms to increase efficiency work.
5) Communication and digital public relations skills	The administrators' skills that presented the communication and connection using digital technology to communicate with the students, teachers, personnel and communities effectively	1) Communication through digital media. 2) Public relations through digital media. 3) Creating connection through digital media.
6) Digital literacy skills	The skills and knowledge in both technology and advanced thinking or "Digital Literacy" to take advantage of online information and know how to protect from the risks in online and also understand the rights, responsibility and important ethics in the digital age. Using the internet in political, economic and socio-cultural engagement for self, communities, countries and the world.	1) Digital learning management design. 2) Digital learning innovation. 3) Creating an atmosphere for using digital technology. 4) Sharing information through digital technology. 5) Creating digital media to integrate student learning.
7) professional use of digital tools skills.	The professional digital tool skills means the knowledge and understanding of how to use technical tools, knowledge and basic competencies in working with information technology.	1) Choosing the suitable technology for communication and working. 2) Abilities to screen and manage information technology. 3) Be able to use a variety of technologies, searching and accessing information effectively. 4) Be able to interpret search results included making decisions about the quality of retrieved information.

The Current States and Desirable States of Enhancing Digital Skills of Primary

School administrators under the Office of the Basic Education Commission.

The current states of enhancing digital skills of primary school administrators were at the high level and the desirable states of enhancing digital skills of primary school administrators were at the highest level.

The strategies for enhancing digital skills of primary school administrators under the Office of the Basic Education Commission

The strategies for enhancing digital skills of primary school administrators under the Office of the Basic Education Commission consisted of 4 strategies; 1) promote the use of digital platforms to enhance efficiency for work and to use digital tools professionally, consisted of 2 strategic issues, 4 indicators, 2 projects 2) Increase the opportunity to access technology to enhance the work potential, consisted of 2 strategic issues, 3 indicators, 3 projects 3) Develop digital skills to use media, technology and communication effectively, consisted of 3 strategic issues, 5 indicators, 4 projects and 4) Develop digital technology tools for management, consisted of 2 strategic issues, 5 indicators, 2 projects.

Vision

The primary schools under the Office of the Basic Education Commission be able to use digital technology to manage the school environment and individual to promote the modern and efficient learning management and to have the skills in using digital tools professionally (Pitts, 2014) .

Missions

1. Use digital technology and high speed internet in collaborative learning management.
2. Increase opportunities for parents to participate in the development of learning management to enhance learners' potential.
3. Use digital technology to create learning management network, innovation and student quality assessment.
4. Create innovations in learning management, network for knowledge sharing and student quality assessment.

Goals

1. To use digital technology and high speed internet in collaborative learning management.
2. To increase opportunities for parents to participate in the development of learning management to enhance learners' potential.
3. To use digital technology to create learning management network, innovation and student quality assessment.
4. To create innovations in learning management, network for knowledge sharing and student quality assessment.

Strategies

1. Promote the use of digital platforms to enhance efficiency for work and to use digital tools professionally.
2. Increase the opportunity to access technology to enhance the work potential.
3. Develop digital skills to use media, technology and communication effectively.
4. Develop digital technology tools for management.

The Evaluation of Strategies for Enhancing Digital Skills of Primary School

Administrators under the Office of the Basic Education Commission.

The result of evaluation of suitability, feasibility, value and benefit of the strategies for enhancing digital skills of primary school administrators under the Office of the Basic Education Commission were at a high level in all aspects.

Visions missions and goals overall were at the high level in all aspects, suitability

(\bar{x} = 3.92, S.D. = 0.38), feasibility (\bar{x} = 3.91, S.D. = 0.18), value (\bar{x} = 3.91, S.D. = 0.18) and benefit (\bar{x} = 3.98, S.D. = 0.12).

Strategy 1 overall were at the high level in all aspects, suitability

(\bar{x} = 4.25, S.D. = 0.21), feasibility (\bar{x} = 4.22, S.D. = 0.29), value (\bar{x} = 4.21, S.D. = 0.30) and benefit (\bar{x} = 4.30, S.D. = 0.24).

Strategy 2 overall were at the high level in all aspects, suitability

(\bar{x} = 3.97, S.D. = 0.15), feasibility (\bar{x} = 3.99, S.D. = 0.10), value (\bar{x} = 3.99, S.D. = 0.10) and benefit (\bar{x} = 3.99, S.D. = 0.10)

Strategy 3 overall were at the high level in all aspects, suitability

(\bar{x} = 4.40, S.D. = 0.13), feasibility (\bar{x} = 4.40, S.D. = 0.13), value (\bar{x} = 4.40, S.D. = 0.13) and benefit (\bar{x} = 4.40, S.D. = 0.13)

Strategy 4 overall were at the high level in all aspects, suitability

(\bar{x} = 4.00, S.D. = 0.00), feasibility (\bar{x} = 4.29, S.D. = 0.00), value (\bar{x} = 4.14, S.D. = 0.00) and benefit (\bar{x} = 4.29, S.D. = 0.00).

Discussion

The research of strategies for enhancing digital skills of primary school administrators under the Office of the Basic Education Commission aimed to study the components of digital skills of primary school administrators under the Office of the Basic Education Commission, to evaluate the needs of strategies for enhancing digital skills of primary school administrators under the Office of the Basic Education Commission and to construct the strategies for enhancing digital skills of primary school administrators under the Office of the Basic Education Commission. The results were as follows:

1. The components of digital skills of primary school administrators under the Office of the Basic Education Commission consisted of 7 components (Echreshavi et al,2022).

Digital Vision Promoting Skills

Chamchoi (2018: 120) mentioned that the administrators must be able to convey and share visions to others as well as able to develop, apply and integrate technology to support organizational and upgrade to be excellence organization. As same as, the study of digital leadership of Elliott (2017), National Educational Technology Standards for Administrators: NETS-A, 2009) 1) Visionary Leadership: the administrators must have a good visions and share concepts or visions about changing organization through digital innovation development and apply digital technology to enhance excellence organization as well as the understanding of strategies that support the goals to increase competitiveness with digital innovation.

Organizational Resource Management Skills

Pakotang (2018, pp. 273-280) indicated that the administrators must have a new concepts of educational administration in order to managed with any situations, especially in the digital age that made changes to become the digital leader, digital educational management and the use of technology to develop teachers into professionals through personal learning networks. As same as, Somprad (2019, p. 195) found that the key components of digital leadership were 1) digital leadership vision, 2) professional development of personnel and administrators, 3) digital abilities and competencies of administrators 4)

digital network for learning and 5) organizational ethics and digital society. And Gorton (2018) mentioned that the six characteristics of digital leadership were 1) changing people and methods of working, 2) digital skills development in organization, 3) digital strategies, 4) empowering leaders and budget to create digital technology and flexible way of working, 5) initiate programs and projects using research and 6) inspiring teams about the impact of digital transformation.

Oonla-or et al. (2020: 117- 118) described the characteristics of educational administrators with digital leadership in promoting communication, using information technology and confidence in using technology development skill to promote and develop education personnel consisted of 1) the ability to develop the essential competencies for teachers in using technology in learning management 2) promote the development of digital competency for education personnel

3) promote and support education personnel using technology to develop work and career advancement 4) planning and management skills to develop teachers and educational personnel in the digital age 5) the skills to promote and develop potential of educational personnel using digital technology-based approach (Yong et al., 2022).

Teamwork Skills

Sieber, Kaganer & Zamora (2013: Online) indicated a perspective on digital leadership of educational administrator were as follows: 1) Become Digitally Fluent: changes were important for entering the digital world which we must recognized the necessity and agility of digital as well as integrating digital thinking as part of school management, 2) Develop New Capabilities: the administrators and teachers who have developed digital competencies will increase the potential to create valuable things for school.

As Thurtow (2002: 32) studied the appointment of headmasters, what to looking for? How to find? What is the purpose of presenting the policy? The examples of selection, practice and appointment of the principal in Canada, The United States and other countries that considered the roles and the abilities of the principal and prepared for training programs before being appointed. The researchers started to examined 6 roles of the principal performance as follows; 1) Teaching Leader, 2) Transformation Leader, 3) Moral Leader, 4) Participation Leader, 5) Management Leader and 6) Integration Leader. Each role required a variety of abilities that might from formal and informal training or the specific appointment for headmaster.

Digital Organization Culture Producing Skills

Pongsiri (2017: 20-23) mentioned that administrators must manage the organization by combining 3 factors; working environment, creative thinking and digital culture organization in the digital age. Educational administrators must be able to manage any changes using leadership and strategic management to develop educational quality to be successful (Bzinkowski, 2022).

Communication and Digital Public Relations Skills

Bates (2015: 17-19) indicated that the essential skills in the digital age were communication skills, not only traditional communication skills such as reading, speaking and writing, but also social media communication skills such as created a YouTube clip to explained how something works, etc.

Digital Literacy Skills

Somprad (2018:109) indicated that the components of digital leadership consisted of 10 main components; 1) technology networking, 2) creation of new environments and innovations for technology learning, 3) ethics in using technology, 4) ability to use digital tools, 5) Branding, 6) participatory planning, 7) professional development, 8) survey and selection of accurate and up-to-date information, 9) compliance with digital data security laws and regulations, and 10) measurement and evaluation.

Professional Use of Digital Tools Skills

Chamchoi (2019: 11) mentioned that the goal of educational management strategies was Thai people have the skills, knowledge, abilities and receive high quality education as well as self-directed learning included analytical thinking skills, creative thinking systematically and working skills for entering the job market. Moreover, expanding opportunities to access the quality education for underprivileged children and youth was the goal to develop learners to be Thai people 4.0 according to the National Economic and Social Development Plan, Office of the Permanent Secretary, Ministry of Education, No. 12 (2017-2021).

The Current States and Desirable States of Enhancing Digital Skills of Primary

School Administrators Under the Office of the Basic Education Commission

The current states of enhancing digital skills of primary school administrators overall was at the high level ($\bar{x} = 3.84$) in all aspects. The components with the highest average was professional use of digital tools skills due to the school administrators used digital technology in school management including generate a digital vision, create identity and construct a digital strategy for school administration, and also the school administration of environment management and human resource management to promote the modern and effective learning management. Keesukphan (2016) indicated that the school administrators in the digital age must learn about communications technology and computer technology (ICT) and its impact. The school administrators should understand and use information in various forms to acquire digital skills and be a good example of working with digital professionally. The desirable states of enhancing digital skills of primary school administrators overall were at the highest level. The components with the highest average was professional use of digital tools skills due to the use of digital tools skills could strengthen the digital skills of school administrators.

The Strategies for Enhancing Digital Skills of Primary School Administrators Under the Office of The Basic Education Commission

The SWOT Analysis was used to analyze the data obtained from the strengths, weaknesses, opportunities and threats, then constructed the strategies using TOWS Matrix technique. The strategies for enhancing digital skills of primary school administrators under the Office of the Basic Education Commission consisted of 4 strategies;

1) promote the use of digital platforms to enhance efficiency for work and to use digital tools professionally, consisted of 2 strategic issues, 4 indicators, 2 projects 2) Increase the opportunity to access technology to enhance the work potential, consisted of 2 strategic issues, 3 indicators, 3 projects 3) Develop digital skills to use media, technology and communication effectively, consisted of 3 strategic issues, 5 indicators, 4 projects and 4) Develop digital technology tools for management, consisted of 2 strategic issues, 5 indicators, 2 projects.

Strategy 1: promote the use of digital platforms to enhance efficiency for work and to use digital tools professionally, consisted of 2 strategic issues; 1.1) promote the administrators to use digital platforms for communication and management and 1.2) Establish a network to increase work efficiency. Implementation of digital platforms in school must be start from the administrator's awareness. The administrator must understand the use of media, information technology and innovation, included promoting the use of media and innovation in school management.

Keesukphan (2019) mentioned that the school administration in digital age, the administrators need to have a good understanding of communication and computer technology in order to use in school management appropriately, especially the school administrators in the civil state project of the Ministry of Education who cooperated with the private sector to develop national education must show the potential in management and abilities to manage the school environment to be up-to-date and appropriated for

technological changes. In addition, administrators must create a network to increase work efficiency because the participation and coordination from various sectors rapidly was very important to school management.

Strategy 2: Increase the opportunity to access technology to enhance the work potential, consisted of 2 strategic issues; 2.1) the administrators accepted and adapted to keep up with the advancement of digital technology and 2.2) promote networks to exchange knowledge among stakeholders.

The administrators must be the Digital Leadership who knew how to keep up with technology and disruptive technology, use technology or innovation to reach successful organization because the administrators were the leaders who setting the schools direction to be successful. Chamchoi (2019) presented the element of innovative school which was a network of various cooperation both inside and outside school that was an opportunity for teachers and learners to use the resources of collaborative networks for exchange knowledges and strengthen the potential for create innovation.

Strategy 3: Develop digital skills to use media, technology and communication effectively, consisted of 3 strategic issues: 3.1) develop administrators in using technology to adjust with digital technology, 3.2) promote the use of digital technology for management planning and collaborate evaluation, 3.3) Create a variety of communication systems for convenience and modernity.

The school administrators will have digital skills to use technology and communication media effectively must be developing themselves to be able to use technology before used in planning, management and collaborate evaluation because using of digital technology to assist in planning will make the school able to implement the plans and achieve the objectives efficiently. School administrators should use information technology to manage all aspects of the goals, delegated the responsibilities to strategic plans implementation, monitored, inspected, evaluated and publishing information. The management planning should have both short-term and long- term planning and setting standards for performance appraisal. As well as,

Strategy 4: Develop digital technology tools for management, consisted of 2 strategic issues: 4.1) Encourage administrators to create management innovations from digital platforms and 4.2) Encourage administrators present their work or digital technology to public internationally. Development and innovation enhancement of school administrators were enabled administrators to create digital technology tools for management because creating innovation was an important strategy for developing the organization's competitive (Akrasupasate, 2007).

And so, the school administrators must be leaders of organizations who had a vision to create management innovation from digital platforms with creative concepts or new concepts and was able to solve problems, find solutions and create stability for sustainable organization. Innovation was something new or something that has been further developed from creativity and integrated knowledge in various fields. The administrators who publicized information to the community through various digital media was international administrator. of academic works and disseminate the knowledge gained through various network.

The Results of Evaluation of the Strategies for Enhancing Digital Skill of Primary School Administrators Under the Office of the Basic Education Commission

The strategic evaluation of the strategies in 4 aspects: suitability, feasibility, value and benefit were at the high level in all aspects.

The evaluation results of visions, missions and goals of the strategies for enhancing digital skill of primary school administrators overall were at the high level in all aspects, suitability (= 3.92, S.D. = 0.38), feasibility (= 3.91, S.D. = 0.18), value (= 3.91, S.D. = 0.18) and benefit (= 3.98, S.D. = 0.12).

The evaluation results of strategy 1 overall were at the high level in all aspects, suitability (= 4.25, S.D. = 0.21), feasibility (= 4.22, S.D. = 0.29), value (= 4.21, S.D. = 0.30) and benefit (= 4.30, S.D. = 0.24). The evaluation results of strategy 2 overall were at the high level in all aspects, suitability (\bar{x} = 3.97, S.D. = 0.15), feasibility (\bar{x} = 3.99, S.D. = 0.10), value (\bar{x} = 3.99, S.D. = 0.10) and benefit (\bar{x} = 3.99, S.D. = 0.10)

The evaluation results of strategy 3 overall were at the high level in all aspects, suitability (\bar{x} = 4.40, S.D. = 0.13), feasibility (\bar{x} = 4.40, S.D. = 0.13), value (\bar{x} = 4.40, S.D. = 0.13) and benefit (\bar{x} = 4.40, S.D. = 0.13)

The evaluation results of strategy 4 overall were at the high level in all aspects, suitability (\bar{x} = 4.00, S.D. = 0.00), feasibility (\bar{x} = 4.29, S.D. = 0.00), value (\bar{x} = 4.14, S.D. = 0.00) and benefit (\bar{x} = 4.29, S.D. = 0.00).

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