A Model for Supervision Management to Improve the Education by Using the Area as Base in Digital Era under Primary Educational Service Area in the Northeastern Region

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Abstract

Educational reform in the modern era which the school administrators and all personnel in the school Must improve and develop themselves to keep up with changes in the era of globalization. By using the supervisory management model process to develop educational quality, these research objectives are to: 1) Study the problems and elements of supervision. Target group: 15 people 2) Create a supervisory model. By conducting in-depth interviews with 15 people involved. 3) Experiment with the supervision model with a sample group of 3 schools 4) Evaluate the use of the supervision model. By organizing a seminar with 15 experts and asking for opinions about its usefulness. Feasibility, appropriateness, and correctness of the format from 291 study supervisors. The instrument used was a questionnaire. Statistics were used to find the mean and standard deviation. It can be summarized as follows: 1) Problems in supervision include an insufficient number of supervisors. Study supervisors lack knowledge Lack of good supervision skills and no systematic planning. There are 5 important elements as follows: (1) objectives, (2) planning, (3) supervision, (4) monitoring and reflection, and (5) development and application. 2) Creating a model for supervision, including (1) objectives,(2) content of supervision, (3) process, (4) method, (5) supervisor and supervisor, (6) duration, (7) planning, (8) execution, (9) Evaluation (10) teamwork (11) network building (12) knowledge management (13) learning and quality development (14) building morale and (15) improving development. 3) The results of the trial use of the model had a reliability value of .80. Average comparison results in Knowledge before training and after training, tested with a t-test, and were found to be different. Statistically significant is at the .01 level. They were satisfied with the model. Overall, it is at the highest level ($\overline{x}$ = 4.90, S.D. = 0.53) and the results of the overall evaluation of the use of the format are at the highest level ($\overline{x}$ = 4.89) and overall satisfaction with the use of the format is at the highest level ($\overline{x}$ = 4.63) 4) Model evaluation results are useful feasibility, suitability, and correctness. Overall, it is at the highest level ($\overline{x}$ = 4.63, S.D. = 0.12).

Keywords: educational supervision management, educational improvement, digital era

1. Introduction

The Constitution of The Kingdom of Thailand 2017 prescribed in Section 54 that the state must ensure that every child receives education for twelve years from pre-school age to completing compulsory education with quality. This is in line with the National Education Plan 2017-2036, which has the main concept of education management. It adheres to the main principles of education management, consisting of Education for All, Inclusive Education, Sufficiency Economy philosophy, and the participation of all sectors. The social part (Education for All) and adheres to the Sustainable Development Goals: SDGs, 2030, and local issues according to the 12th National Economic and Social Development Plan (B.E. 2017-2021) has set the direction of the 5-year national economic and social development plan in terms of education as follows: 1) to raise the quality of education and learning to be equal and inclusive people of all ages, 2) to support the growth of the country, and 3) the development of labor productivity. It is collaboration between the public and private sectors to develop manpower and labor and it is in line with the Office of the Basic Education Commission's policy. The National Strategy (2018-2037) must be put into practice for Thailand to achieve its vision of "Thailand is stable", prosperous, sustainable, and a developed country with development according to the philosophy of a sufficiency economy. It realizes the important mission of developing the nation's population to be Thai people in the future who must be ready physically, mentally, and

intellectually, with good all-round development. They have good health at all ages, have a public mind, are responsible to society and others, are thrifty, frugal, generous, disciplined, maintain morality, and are a good citizen of the nation.

The necessary skills in the 21st century to enter educational reform are focusing on quality learners with desirable characteristics. The learners should have academic skills, vocational skills, life skills, leadership skills, and leading skills to create innovation. In the process of driving basic education quality development, educational supervision is therefore important for development. To improve and increase the efficiency of education management in educational institutions, administrators and teachers must have an understanding of management, a curriculum, and an effective teaching method, and provide proficient learning activities.

The other operations that affect the development of the quality of education (Bureau of the Basic Education Commission, 2019) stated the problems of the educational management of the Office of Primary Educational Service Area and the supervision. The results from the reporting of the Educational Supervisors Office of the Basic Education Commission found that the supervision processes within schools were different. Some factors facilitated and hindered the supervision. The supervision still lacked continuity and unity in the context of the area to keep pace with changes in the school environment. The era of Thailand 4.0 and the development of learners have basic skills and characteristics of Thai citizens. A Necessary Characteristic in the 21st Century Educational Institutions need a paradigm shift in technology in the digital age. This must be used in school administration as a supervision administration to improve the quality of education using space as a basis in the digital age. Under the Primary Educational Service Area Office in the Northeast, it is very important and necessary for the school to be successful for many reasons. The educational reforms in modern times request school administrators and all school personnel must improve and develop themselves to keep pace with changes in the era of globalization by using the process of supervision management to develop the quality of education using space-based standards in the digital age under the Office of Primary Educational Service Area in the Northeast as a guideline for school administrators and those involved have applied to the context of that educational institution. To be effective, it is used as a tool for supervising, monitoring, evaluating, and supervising education that will bring the quality of educational institutions and learners to meet the national educational standards and contribute to the development of sustainable quality of education.

2. Research Objectives

1) Study the problems and elements of educational supervision by using space as a base in the digital age under the jurisdiction of the Northeastern Primary Educational Service Area Office.

2) Create a model for educational supervision using space as a base in the digital age under the jurisdiction of the Northeastern Primary Educational Service Area Office.

3) Experiment with the supervision model to develop the quality of education using space as a base in the digital age under the jurisdiction of the Northeastern Primary Educational Service Area Office.

4) Evaluate the use of the supervision model to develop the quality of education using space as a base in the digital age under the jurisdiction of the Northeast Primary Educational Service Area Office.

3. Methodology

Supervision management model for improving area-based education in the digital era under the primary education service area in the Northeast can be used in the administration of supervision and development of educational quality and is appropriate for the Primary Educational Service Area Office.

4. Results

The research framework is the study of information about theory. Literature review from documents and research related to supervisory management models. The framework emphasizes the use of space as a base in the digital age. Under the jurisdiction of the Northeast Primary Educational Service Area Office, All data were analyzed, synthesized, and summarized into independent and dependent variables. According to the theoretical framework in this research, the content studied according to the research objectives is completely covered as shown in Figure 1.
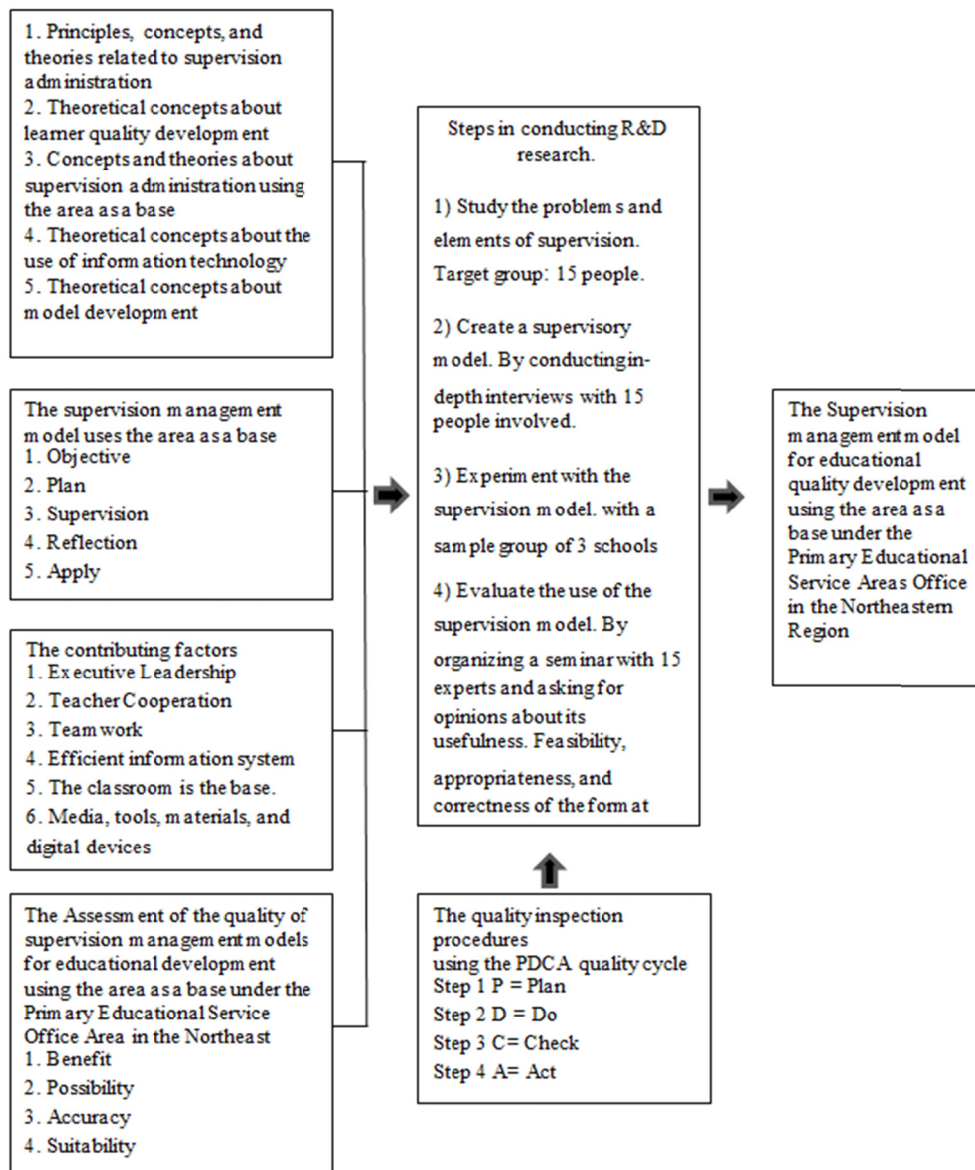
Figure 1. A conceptual framework for the research on the supervision management model for educational quality development using the area as a base under the Primary Educational Service Areas Office in the Northeastern Region

5. Discussion

This research is related to the development of an educational supervision management model for improving educational quality. Using space as a base in the digital era under the jurisdiction of the Northeast Primary Educational Service Area Office The objective is to study operational problems and develop educational quality. Using space as a base in the digital era under the jurisdiction of the Northeast Primary Educational Service Area Office Research methods: Research and development (R&D) research design was used in this study. It is the design of a new alternative in the development of educational supervision management. Using the area as a base in the digital era of the Northeastern Primary Educational Service Area Office of Thailand The research method has been improved and developed many times (R1, D1, R2, D2, …). Finally, the research method consists of four steps. The researcher researched as follows:

I) Study the problems and elements of educational supervision. Using space as a base in the digital age Under the jurisdiction of the Northeastern Primary Educational Service Area Office. This phase was to study the conditions, operational problems, needs, and management guidelines of the educational supervision management and the

educational quality development of the Primary Educational Service Area Office in the Northeastern region. It is divided into two sections:

1) Study the problems and elements of supervision.

2) Organize group discussions, study supervision, and target a group of 15 people.

II) Create a model for educational supervision using space as a base in the digital age under the jurisdiction of the Northeastern Primary Educational Service Area Office. The research process was shown as follows:

1) In-depth interviews with those involved in educational supervision.

2) Draft an educational supervision management model to develop educational quality, using space as a base in the digital age under the jurisdiction of the Northeastern Primary Educational Service Area Office By creating a supervisory management model manual using schools of 3 different sizes: small schools medium-sized schools and large schools.

III) Experiment with the supervision model. To develop the quality of education Using space as a base in the digital age under the jurisdiction of the Northeastern Primary Educational Service Area Office.

IV) Evaluate the use of the supervision model. To develop the quality of education Using space as a base in the digital age under the jurisdiction of the Northeast Primary Educational Service Area Office.

6. Suggestion

I) The Problems in supervisory administration to develop educational quality Using space as a base in the digital age, the number of educational supervisors is small. It is not sufficient to take care of the quality of school education thoroughly. Educational supervisors still lack knowledge. Understanding of the matters to be supervised Lack of skills and methods for good supervision management and consistency with the matter to be supervised As a result, the supervisory administration does not achieve its goals or meets the needs of the supervisor Supervisory administration Lack of preparation for supervisory management There was no systematic joint planning. and not analyzing the problem situation or the true needs of the person receiving supervision. There are 5 important elements as follows: 1) objectives, 2) planning, 3) supervision, 4) monitoring and reflection, and 5) development and application.

II) The results of creating an educational supervision model include:: 1) objectives, 2) content of supervision, 3) process, 4) method, 5) supervisor and supervisor, 6) duration, 7) planning, 8) execution, 9) Evaluate 10) teamwork 11) network building 12) knowledge management 13) learning and quality development 14) building morale and 15) improving development.

III) The results of the trial use of the model had a reliability value of .80. Average comparison results in Knowledge before training and after training, tested with a t-test, were found to be different. Statistically significant is at the .01 level. They were satisfied with the model. Overall, it is at the highest level ($\overline{x}$ = 4.90, S.D. = 0.53) and the results of the overall evaluation of the use of the format are at the highest level ($\overline{x}$ = 4.89) and overall satisfaction with the use of the format is at the highest level ($\overline{x}$ = 4.63)

IV) Model evaluation results are useful for feasibility, suitability, and correctness. Overall, it is at the highest level ($\overline{x}$ = 4.63, S.D. = 0.12). When considering each aspect, it was found that every aspect was at the highest level, with the aspect having the highest average is the aspect of usefulness ($\overline{x}$ = 4.70 =, S.D. = 0.43), followed by the aspect of accuracy ($\overline{x}$ = 4.63, S.D. = 0.26) and feasibility ($\overline{x}$ = 4.61, S.D. = 0.49), while the side with the lowest mean value was appropriateness ($\overline{x}$ = 4.59, S.D. = 0.19), respectively.

7. Discussion of Research Results

From the research findings, a model for supervision management to improve education by using the area as a base in the digital era under primary educational service area in the northeastern region, the details to be discussed were as follows:

I) The Problems in supervisory administration to develop educational quality Using space as a base in the digital age, the number of educational supervisors is small. It is not sufficient to take care of the quality of school education thoroughly. Educational supervisors still lack knowledge. Understanding of the matters to be supervised Lack of skills and methods for good supervision management and consistency with the matter to be supervised As a result, the supervisory administration does not achieve its goals. or meets the needs of the supervisor Supervisory administration Lack of preparation for supervisory management There was no systematic joint planning and not analyzing the problem situation or the true needs of the person receiving supervision. There are 5 important elements as follows: 1) objectives, 2) planning, 3) supervision, 4) monitoring and reflection, and 5) development

and application. Similar to Phinthong (2009), the researcher studied the administration of educational supervision of the educational supervision units in the District Primary Education Office. The researcher constructed a questionnaire for the head of the district primary education, the assistant of the district primary education, and the head of supervision with a total of 153 people. The result of the study found that the efficiency of the education supervision management had to rely on Gregg's theory. There are 7 aspects of Gregg's theory: decision-making about teaching and learning supervision management, planning with all supervisors, the organizational arrangement, communicating with the school using notifying the letter, using supervision development, training supervisors, and evaluating the efficiency of the education supervision management. Phinthong (2009) revealed that the problems of supervision were: poor decisions, inadequate school budget, providing information that does not match the actual situation, late teachers' teaching methods, unsystematic internal supervision, quality assessment, lack of good coordination, and unsystematic assessment. This is in line with the research results of Boonprom (2019) on the model of internal supervision for sustainable educational management development of educational institutions in Bangkok. It was found that the internal supervision process consisted of 5 processes: problem and needs study, importance analysis and planning, understanding creation, supervision operation, and recording supervision and reporting results.

II) The results of creating an educational supervision model include: 1) objectives, 2) content of supervision, 3) process, 4) method, 5) supervisor and supervisor, 6) duration, 7) planning, 8) execution, 9) Evaluate 10) teamwork 11) network building 12) knowledge management 13) learning and quality development 14) building morale and 15) improving development. These components are the factors to create effective work. According to the research process, the result was in the form of supervision management which is the relationship structure between the supervisor's roles and the instructional supervision process for teachers in educational institutions. It affects teachers' effective teaching and learning problems of learners that relate to the best pattern of supervision management in the future. Considering the impact of both external and internal environmental factors, education policy, all dimensions of the educational service area office, and the mutual acceptance of people in the organization, the person who is responsible for supervision administration, must find a way to determine the direction with clear operations and consider the best alternatives to use the resources economically for maximum benefit. This is in line with the research results of Likewise, Mark & Stoop (1985). They stated that great supervision management must be planned in the short term and long term. Planning is required with the involvement of all stakeholders and must be budgeted in the annual budget (Mark & Stoop, 1985). Moreover, some researchers stated the components of educational supervision management such as the administrative process of Allen (1963), the instructional supervision of Harris (1973), the administrative supervision of Utranan (1987), and the educational supervision of the Office of the National Primary Education Commission. There are procedures for planning operations and resource allocation. Consistent with the research of Chiradechakul (2007) mentioned the important elements of supervision within schools that must have the information system. It is to be used in supervision planning within the school and also it is needed to have a strategic supervision plan.

III) The results of the trial use of the model had a reliability value of .80. Average comparison results in Knowledge before training and after training, tested with a t-test, and were found to be different. Statistically significant is at the .01 level. They were satisfied with the model. Overall, it is at the highest level ($\overline{x}$ = 4.90, S.D. = 0.53) and the results of the overall evaluation of the use of the format are at the highest level ($\overline{x}$ = 4.89) and overall satisfaction with the use of the format is at the highest level ($\overline{x}$ = 4.63). The results were similar to the study of Manapim (2013). The researcher found that the evaluation of the suitability of the model to develop an internal supervision model for classroom management at the secondary level schools and expanded educational opportunity schools was at a high level in all items by 15 experts. And consistent with Wannaporn (2009) conducted a study on Network creation of supervision models within small educational institutions. It was found that network creation is a link between operating systems or the roles of groups of people. Various organizations/departments that are subunits come together voluntarily. Under the need for common objectives organize the structure and working style with the new system in a way that creates horizontal cooperation and coordination between those involved by mobilizing all forces Together, they set strategies for development by allowing members to think together, decide together, plan together, do together, and take responsibility. Participate in monitoring and evaluating and join in the benefits.

IV) Results of the evaluation of the use of the governance model. They held a seminar with 15 experts and asked for their opinions on its benefits. The feasibility, appropriateness, and accuracy of the model from 291 educational supervisors were found to be. Overall, it is at the highest level ($\overline{x}$ = 4.63, S.D. = 0.12). When considering each aspect, it was found that every aspect was at the highest level, with the aspect having the highest average is the aspect of usefulness ($\overline{x}$ = 4.70 =, S.D. = 0.43), followed by the aspect of accuracy ($\overline{x}$ = 4.63, S.D. = 0.26) and

feasibility ($\bar{x}$ = 4.61, S.D. = 0.49), while the side with the lowest mean value was appropriateness ($\bar{x}$ = 4.59, S.D. = 0.19), respectively. This is consistent with the results of a study by Kittiratchakanon (2008) who studied the development of a supervision model for teaching and learning management in basic educational institutions. It was found that the involved respondents had opinions at a high level. Likewise, in the study of Yodwandee (2010), the researcher studied the development of a supervision model "Follow up" on the management of affiliated educational institutions of the Office of the Educational Service Area. The researcher found that the participants had opinions at a high level in all aspects as well. The research results showed that the components of the supervisory administration model of the Educational Service Area Office consisted of five components: 1) objectives, 2) planning, 3) supervision, 4) monitoring and reflection, and 5) development and application that influence efficient work. Considering each aspect, there were aspects as follows: 1) The usefulness of the supervision administration model had a high average because the supervision management model that was created was beneficial to the educational supervisor profession. It was beneficial to the educational service area office in quality development, management of education, and the quality of students as well. 2) The suitability of the supervision administration model was appropriate because the developed supervision management model is along with the current educational situation. 3) The possibility of the supervision administration model had a possibility because the developed educational supervision administration model can be used in real situations with a clear process and operational guidelines. 4) The accuracy of the supervision administration model trended to have less importance than other aspects because of the new concept that the researcher has applied to the concept of management and the new educational supervision that is used in the form has some limitations that may cause misunderstanding.

8. Suggestions from Research

The findings from this research are very beneficial to the supervision administration of the Educational Service Area Office because it provides an effective supervision management style that affects the development of the quality of education of the Office of Educational Service Area. Although there are many differences depending on the context of the supervision administration of the Primary Educational Service Area Office, to study the components of supervision administration of the Primary Educational Service Area Office more in-depth. The researcher has suggestions for applying the research results as follows:

I) Objectives: The implementation of the policy from the level of the Ministry of Education Office of the Basic Education Commission Office of the Primary Educational Service Area Standards and Guidelines for Educational Management, A study of the necessary needs for supervision administration, A study of supervision management problems, and A study of situations that affect supervision administration and analyzing learning achievement O-NET RT and NT exam results.

II) Planning: Administrators, supervision recipients, and basic education committees jointly set policies, visions, missions, strategies, focus, and goals of supervision administration in education management. Supervisors and supervisees jointly set objectives, goals, and work project activities. Supervisors and recipients work together to create effective tools such as equipment and supervision materials. There are supervision methods that are suitable for space-based supervision in the digital age. To appoint a responsible person, the committee works to accomplish the task efficiently and effectively, working as a team of the Primary Educational Service Area Office which needed to have 5 efficiency aspects: unity of purpose, participation communication, trust, and respect. It is required to set a clear supervision calendar, and supervision management period, giving advice, assistance, and guidance to correct, improve, and develop the organization of learning activities for teachers. It influences the quality of students toward the standards of the curriculum.

III) Supervision: The director of the Primary Educational Service Area Office, the deputy director of the Primary Educational Service Area Office, the supervisor of the Primary Educational Service Area Office, school administrators, and academic teachers at the school are required to have meetings, training, seminars, study visits, notify news, documents, regulations, methods, and guidelines in an updated time. The school administrators and supervisors explain to the recipients about the objectives, goals, methods of supervision, techniques, and innovations that are used in supervision.

IV) Monitoring and reflection: Supervisors regularly visit the class and observe the teaching. Supervisors record supervision every time. Supervisors evaluate supervision management performance and compare the results with the objectives, goals, and indicators. It is required to analyze the generated data from supervision operations on an ongoing basis systematically, collect supervision results, and develop good supervision practices that are effective as information and disseminate them.

V) Development and application: The school provides a system that promotes supervision administration

systematically. To achieve its objectives, it can be aware of changes in movement and modern educational advancement in the digital age, data management, information, and full digitization of work systems.

9. Suggestions for Further Research

The researcher would like to suggest the following subjects for further investigation based on the findings of this study:

1) There should be a comparative study of educational supervision administration patterns among educational service area offices in different regions.

2) Factors affecting the educational supervision administration of the Educational Service Area Office should be studied.

3) An in-depth study should be conducted to study the relationship between educational supervision administration and organizational effectiveness.

4) Research studies should be conducted on the impacts arising from the adoption of the supervision management model that is to improve the quality of space-based education in the digital age under the Primary Educational Service Area in the Northeast. It should be used in the long term in a qualitative research manner. To develop the quality of education, it is needed to have an effective supervision administration model to suit the different contexts of each study area.

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Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Obtained.

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Data sharing statement

No additional data are available.