CHAPTER 5

Summary, Conclusions, and Recommendations

This research aimed (1) to develop the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers and (2) to explore the utilization results of the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers. The research methodology was divided into two phases. Phase 1 dealt with the development of the model of supervising, monitoring, and evaluating research capabilities for developing instruction of student teachers. It was conducted by synthesizing concepts, and theories relevant to human resource development, teacher development, research for developing instruction, supervision, and evaluation. The data about conditions, problems, and needs in supervising, monitoring, and evaluating the research capabilities for developing instruction of student teachers were also included. Then, the three components of the model were determined. These components were (1) the directions of research capability development, (2) the processes of research capability development, and (3) the evaluation of research capability development. As for the second component, it consisted of two steps. Step 1 dealt with preparing readiness for student teachers, program university supervisors, general university supervisors, and mentor teachers; Step 2 dealt with the operation of teacher professional internship via giving consultation and sharing learning. As for the third component, the research tools used were the evaluation form of the quality of the model of supervising, monitoring, and evaluating the research capabilities for developing instruction of student teachers. This form evaluated the model regarding utility, feasibility, appropriateness, and accuracy. Nine connoisseurs were the evaluators; mean, standard deviation, and content analysis were analyzed. Phase 2 dealt with exploring the utilization results of the model of supervising, monitoring, and evaluating research capabilities for developing instruction of the student teachers. The sample groups employed in trying out the model were nine

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general university supervisors, ten program university supervisors, 40 mentor teachers who applied to participate in the research project, 40 student teachers who were voluntarily selected by their university supervisors and mentor teachers, and 257students who received full learning management from the student teachers. The research tools used were three issues of the evaluation forms of research capabilities for developing instruction. In terms of the effectiveness of operating the development, the researcher explored the opinions toward the model by using the questionnaires to collect data from university supervisors and mentor teachers. The data were analyzed by identifying frequency, percentage, mean, and standard deviation.

5.1 Summary of Study Results

5.1.1 The development results of the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers could be summarized as follows:

(1) The development results of the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers consisted of three components. Component 1 dealt with the directions of research capability development. This was considered operational guidelines mainly employed for the development throughout the process. It consisted of (a) the principles which relied much on the cooperation, the consultation, and the combination of development supervision and clinical supervision and (b) the objectives aiming to develop the research capabilities of student teachers and students' learning quality. Component 2 dealt with the processes of research capability development. They consisted of two steps. Step 1 was the preparation of readiness for student teachers, program university supervisors, general university supervisors, and mentor teachers. Step 2 dealt with the operation of teacher professional internship via giving consultation and sharing learning. Component 3 focused on the evaluation of research capability development. This was the evaluation before, during, and after the development of research capabilities of student teachers. These capabilities were evaluated by general university supervisors, program university supervisions, and mentor teachers.

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(2) The evaluation results of the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers were assessed by nine connoisseurs. It was found that the model possessed the quality of utility, feasibility, appropriateness, and accuracy at the high and the highest levels having the mean at 4.44, 4.53, 4.44, and 4.46, respectively.

5.1.2 The utilization results of the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers could be summarized as follows:

(1) In terms of students' research capabilities, it was found that the research proposals of the student teachers passed the research quality criteria at fair, good, and excellent levels or 15, 50, and 35 percent, respectively. As for the evaluation results of their research reports for developing instruction, their reports passed the research quality criteria at good and excellent levels or 45 and 55 percent, respectively.

(2) Each research work of the student teachers could develop students as identified in the research objectives at 75-100 percent of the student number determined or at 94.48 percent of the total student number of all research included.

(3) In terms of the effectiveness in operating the development based on the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers in an overall picture, program university supervisors, general university supervisors, and mentor teachers regarded that the model possessed utility, feasibility, appropriateness, and accuracy in an overall picture at a high level.

5.2 Conclusion of the Study Results

5.2.1 The development results of the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers

According to the development results of the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers, it was found that the model consisted of "Component 1: The directions of research capability

development" which was comprised of the principles and the objectives, "Component 2: The processes of research capability development" which consisted of two steps – Step 1: The preparation of readiness for student teachers, program university supervisors, general university supervisors, and mentor teachers and Step 2: The operation of teacher professional internship via giving consultation and sharing learning, and "Component 3: The evaluation of research capability development." This finding was in line with the research of Judy Lombardi (2001), Carrie Ann Stephens and Randol Waters (2009), Christine Hamel (2012), Kriangsak Sakchai (2009), and Kanittha Chaowattanakul (2010). The model developed was supposed to possess a systematically internal relationship in that (1) the development directions and the objectives were determined clearly; (2) the development processes were determined in line with the established objectives; and (3) the development results were evaluated in order to express that the development model was effective or not. This could lead to the improvement and development of the model in terms of directions, content, and development processes. The findings were able to be discussed based on each component as follows:

(1) Component 1: The directions of research capability development. It was comprised of the principles and the objectives served as goals and operating guidelines mainly employed to develop research capabilities for developing instruction of student teachers. The researcher employed the concept of human resource development of Swanson (2001) whose development was based on available resources in that they were consumed in an economical, worthwhile, and highly beneficial. Also, experience and reinforcement were supposed to be considered in order to motivate and persuade to the learning for development. The concept of developing to the professionalism of Clarke (1994) was also employed. Therefore, the supervision, monitoring, and evaluation of the research capabilities for developing instruction of the student teachers lay in the belief stating that the student teachers were different in terms of knowledge, expertise, learning ability, and option seeking. This was in line with the National Education Act B.E. 2542 stating that "Education shall be based on the principle that all learners are capable of learning and self-development, and are regarded as being more important. The teaching-learning process shall aim at enabling the learners to develop themselves at their own pace and to the best of their potentiality."

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Additionally, the construction of participatory sense in developing oneself voluntarily was added through the concept of constructing participatory expression of Hord and others (1987) and the concept of developing to the professionalism of Sparks and Louks-Horley (1990) identifying that the learning would possess maximum effectiveness when there was a desire to learn, a perception of problems, and a need to solve problems by merging experience with learning. The theory of adult education of Knowles (2005) was included as it dealt with the fact that adults possessed needs and abilities in directing themselves and employing experience to learn. Then, the principle of opening mind in giving consultation per individual and per small group through the principle of developmental supervision of Glickman, Gordon, and Ross-Gordon (2010) and clinical supervision was added in order to monitor and motivate the research for developing instruction to its success as planned in the objectives. Program university supervisors, general university supervisors, mentor teachers, and student teachers coordinated in sharing their learning, analyzing, and reflecting ideas. This was regarded as the supervising process which was appropriate for the teacher professional internship as the student teachers did not have much work experience. Moreover, they still needed close attention and consultation from those possessing authentic knowledge and abilities in working in educational institutions, i.e. general university supervisors, program university supervisors, and mentor teachers. This was in line with Aunchalee Phothong (2001) and Preeyaphorn Wong-anoottarot (2005) who mentioned that good cooperation and relationship among those relevant to collaboration was considered the development and growth in teacher professionalism. It directly influenced learners' learning which depended on supervising, helping, giving advice, giving knowledge, and practicing in conducting action research so that they could adjust and develop their instructional management or their professional work constantly and effectively with maximum benefits. Therefore, the supervision, monitoring, and evaluation of research capabilities for developing instruction was necessary in the changing times. The close attention and consultation on research for developing learning given by university supervisors and mentor teachers would enable the students to operate the instructional management through research processes effectively. It also enhanced the students' learning quality effectively via the social media networks in the creative atmosphere which was in line with the principle of Ibarra (2007). The objectives of developing research capabilities

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for developing instruction of student teachers and allowing students to obtain the instructional management via research processes from the student teachers were in line with those of education curriculum. This was in line with the objectives of the Bachelor of Education Curriculum which aimed to develop students to possess professionalism as stated in high professionalism standards. Additionally, the Office of the Higher Education Commission desired to enhance and upgrade teacher professionalism to be higher profession. Consequently, there was a drive in adjusting and changing teacher producing curriculum opened in various universities (Kietsuda Srisook et.al.: 2007).

(2) Component 2: The processes of research capability development. The researcher applied the results gained from exploring concepts, theories, principles, conditions, problems, and needs in supervising, monitoring, and evaluating the research capabilities of student teachers to determine two steps of the development processes. Step 1 dealt with the readiness preparation for student teachers, program university supervisors, general university supervisors, and mentor teachers. Step 2 emphasized on operating the teacher professional internship, giving consultation, and sharing the learning. At each step, there was the determination of objectives, content, developmental methods, media/learning sources, and measuring and evaluating tools. According to the evaluation of the model quality performed by the connoisseurs, it was found that the development processes were appropriate and in line with development objectives at a high level ($\overline{X} = 4.22$). The development steps were accurate and in line with development objectives at a high level ($\overline{X} = 4.33$). This might be due to the fact that the researcher applied Swanson's concept of human resource development (2001) which was based on the theory of cognitive psychology believing that an individual learning was related with understanding, perception of those motivating, and individual experience. Experience and reinforcement were supposed to be considered in order to motivate and persuade to the learning for development. The concept of constructing participatory expression of Hord and others (1987) was also employed in authentic operation which was in line with Clarke's (1994) mentioning that learning via authentic practice in a manner of class participation was proved effective toward the changes of teaching behavior and teachers' learning rather than the participation in training or seminar depending merely on listening to lectures without monitoring. Provided that the development was strange from authentic and normal conditions, there were less

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impact on behavioral changes of teachers and learners. This was in line with the strategical suggestions toward the educational revolution in the second decade (2009-2018) of Thailand which urged to reform education and develop teachers and educational personnel via school-based approach (the Secretariat Office of the Teachers Council of Thailand: 2009). In addition, the consultation aiming to assist, support, give advice, and give attention via research processes for developing instruction could generate incentives for student teachers in applying new innovation to authentic practice. They would be willing to study and deliver by employing the activities that they had improved or developed by themselves in their own classes. It was considered an experience and changes that were yielded from their own practice. That they improved their own instruction constantly and gradually and that they perceived the influence toward students' learning would enable the student teachers to develop their professionalism. The successful factors of these aforementioned results depended on assistance and supports from general university supervisors, program university supervisors, and mentor teachers. In addition, the researcher applied the principle of giving consultation of Ibarra (2007) which gave consultation for those supervised both per individual and per small group in order to monitor and motivate the research for developing instruction to its success as planned in the objectives. The supervisors and those supervised coordinated in sharing their learning, analyzing, and reflecting ideas and whereabouts through social media networks in creative atmosphere.

Step 1 focused on preparing readiness for student teachers, program university supervisors, general university supervisors, and mentor teachers in order for them to understand the roles and duties based on the model of supervising, monitoring, and evaluating the research capabilities for developing instruction of student teachers. The activities were held as follows. (1) A training for program university supervisors, general university supervisors, and mentor teachers was held in order to build confidence in giving consultation about the research. This was in line with the concept of Woraphak Maitreephan (2009) who explored the roles of teachers and educational personnel appointed as university supervisors. It was found that most university supervisors lacked confidence in giving consultation regarding action research. Therefore, there were recommendations in developing potentials of the teachers appointed as university supervisors in terms of action research in order for them to be

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able to perform in a role of giving consultation and evaluating action research effectively. And, (2) a training for student teachers was held. Its content covered (a) the research for developing instruction which consisted of fundamental knowledge of research for developing instruction, research proposal composition, exploration of concepts, theories, and relevant research, innovation development, research design, tool construction, tool quality identification, data analysis, summary, discussion and recommendations, and research report composition, (b) the supervision based on the model of supervising, monitoring, and evaluating the research capabilities for developing instruction of student teachers, and (c) the utilization of social media networks in supervising and monitoring research capabilities for developing instruction of student teachers. The teacher professional internship provided readiness for students so that they could truly work and encounter academic challenges that kept growing unceasingly. It focused on producing and developing qualified manpower for the countries. These people could adjust themselves into duties happening in their lifetime. Higher education was supposed to develop its potential in creating knowledge and innovation in order to increase capability of national competition in globalization (the Office of the Higher Education Commission: 2008). As a result, student teachers, program university supervisors, general university supervisors, and mentor teachers were prepared for their readiness in the same direction so that they possessed knowledge and understanding toward their role and duties in research for developing the learning, supervision, and social media networks. This enabled the teacher professional internship for students on a basis of the cooperation between mentor teachers and university supervisors to yield maximum effectiveness and efficiency.

Step 2 focused on operating the teacher professional internship by giving advice and sharing the learning. This was considered an assistance in the research for developing instruction for student teachers. The supervision, monitoring, and evaluation of research capabilities for developing instruction of student teachers consisted of seven steps. (1) Program university supervisors, general university supervisors, mentor teachers, and student teachers cooperated in planning the supervision, monitoring, and evaluation of the research capabilities for developing instruction. The supervision calendar throughout a semester of an individual student teacher was obtained in this step. (2) Program university supervisors, general university supervisors, and mentor

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teachers observed the teaching and presented the data gained from their observation of the student teachers so that they could cooperate in analyzing research problems. From this step, the student teachers would gain the instructional problems in order to be analyzed for their causes leading to research problems. (3) Student teachers explained the problem causes clearly whether these problems could be considered research problems or not. Then, they selected important problems affecting learners. They had to solve one problem by employing research processes. Also, they had to explore documents and relevant research in order to identify solutions. (4) Program university supervisors, general university supervisors, and mentor teachers inquired the student teachers about the guidelines and selected methods with provided reasons. The program university supervisors, general university supervisors, and mentor teachers would give further information about appropriate, possible, and practical guidelines. (5) Program university supervisors, general university supervisors, and mentor teachers cooperated in determining scopes or frames that the student teachers had to perform and operate. They gave advice on methods that the student teachers could choose. (6) Program university supervisors, general university supervisors, mentor teachers, and student teachers built mutual understanding toward methods and activities they would perform in operating the research for developing instruction. And, (7) program university supervisors, general university supervisors, and mentor teachers reinforced and gave feedback to the student teachers through one-by-one supervision and the Edmodo program throughout their teacher professional internship in that semester.

University supervisors and student teachers would employ supervising activities via social media networks together with the 7-step operation. This enabled the student teachers to be able to consult and obtain recommendations immediately. The discrimination of the supervision was decreased due to the fact that the social media networks that the researcher employed in this study allowed the group members to be able to see the questions, the recommendations, and the guidelines that university supervisors and mentor teachers had given to the others. In addition, university supervisors and mentor teachers could be informed of the recommendations and consultation given to the student teachers in each time. This enabled the supervision, monitoring, and giving consultation to be in the same direction. Moreover, due to the fact that the university supervisors could see the recommendations and consultations of

other university supervisors, it contributed to the sharing of learning and the construction of new knowledge body for the university supervisors. This finding was in line with those of Preeyaphorn Wong-anoottararot (2005) and Watchara Laoriendee (1998) in that tee supervision contained systematic operation processes which were repetitively performed until the changes were developed and able to flexible based on authentic conditions. Program university supervisors, general university supervisors, mentor teachers, and student teachers cooperated in sharing their learning after completing the teacher professional internship in order to summarize the knowledge body gained from the operation. It was found that program university supervisors, general university supervisors, and mentor teachers possessed understanding in supervising and monitoring in the same direction in that they aimed at solving problems. They offered cooperation in tackling the mistakes and making them perfect enough to pass the consultation and advice. This matched with the student teachers' needs in that they required the supervision and monitoring that aimed at giving advice and consultation rather than that aiming at evaluating. As for applying the social media networks into the supervision and monitoring, it expressed that they contained several advantages for program university supervisors, general university supervisors, and mentor teachers. This was due to the fact that everyone in the group could see the data of each other during giving advice or sharing the learning to the student teachers. As a result, knowledge and new concepts were gained. There was much discussion and consultation among program university supervisors, general university supervisors, and mentor teachers. This could lead to having more confidence in giving advice to the student teachers. This was in line with Pratheep Nankongnap (2010), Natchai Sirithanathanee and Sirikan Sibkhae (2013) who mentioned that the social media networks could decrease the supervision discrimination. It helped save expenses and was served as a medium to exchange opinions among members so that these opinions could help improve and develop each individual's potential at all time and places.

In terms of the problems and obstacles of supervising, monitoring, and evaluating the research capabilities, according the sharing of learning, it could be concluded that the teacher professional internship in the second semester affected the supervision calendar and determined research plans due to the fact that schools held the activities almost

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throughout the semester. The mentor teachers and the student teachers had much assignments and workload; the several holidays also had an influence.

(3) Component 3: The evaluation of research capability development. This was the evaluation before, during, and after the development by considering from the student teachers' research performance for developing instruction of the student teachers. This was evaluated in three aspects which were (1) research proposal aiming at evaluating the capability in designing research, (2) research operation aiming at evaluating the results of operating research based on research plans, and (3) research reports aiming at evaluating the results of research findings, communication, and transferring. The results in applying research processed into developing instruction were also evaluated. Additionally, the learning quality of students who were developed by research processes for developing instruction that achieved research objectives was evaluated. In terms of the evaluation of research capability development, according to the learning sharing, it could be concluded that the previous evaluation of research capabilities of the student teachers was conducted only in two intervals which were before and after the research operation, while the evaluation during the research operation was quite ignored. With the lack of confidence in giving advice and consultation toward the research, the problems of changing the research titles during the semester and committing plagiarism of other researchers were identified. However, with the three-interval evaluation – before, during, and after the research operation – these problems were decreased constantly. Additionally, that the student teachers possessed the learning from authentic practice could contribute to the development of the students' learning quality. This was in line with Nikom Tangkhapipop (cited in Kietsuda Srisook: 2007) who mentioned that the evaluation of student teachers had to be an evaluation system relating to supervising processes. University supervisors and mentor teachers had to be main evaluators as this would contribute to the improvement of teacher professional quality of the student. The evaluation had to offer information that identified ability levels and students' mistakes. The supervision would be continual processes based on this information in order to figure out teaching drawbacks of students. This was in line with Pratheep Methakhunnawoot (cited in Kietsuda Srisook: 2007) who mentioned that the evaluation was considered a guideline in judging advancement contributing to new ideas. Valuable information would be carefully

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assessed. The research for developing instruction was what general people could observe and constantly evaluate. Those relevant to evaluate student teachers were supposed to consist of university supervisors and school supervisors. Additionally, research processes for developing instruction contributed to skills in planning, managing time, searching data, using computer, and using language for communication for student teachers.

(4) The evaluation results toward the quality of the model of supervising, monitoring, and evaluating research capabilities for developing instruction of student teachers was examined on a basis of the Joint Committee on Standard for Education Evaluation (1994) by nine connoisseurs on supervising students, measuring, evaluating, researching in education, and developing supervision models. They collaborated in examining four aspects of quality. It was found that the model possessed utility standards at a high level ($\overline{X} = 4.44$) in that it benefited learning quality of students at a high level ($\overline{X} = 4.33$). As for feasibility standards, the model possessed quality at the highest level ($\overline{X} = 4.53$). The model utilization enabled the student teachers to be able to employ research processes in developing student learning at a high level ($\overline{X} = 4.44$). In terms of appropriateness standards, it revealed that the model possessed quality at a high level ($\overline{X} = 4.44$) in that the determination of the directions of research capability development was appropriate and in line with the principles and objectives ($\overline{X} = 4.44$). As for accuracy standards, the model possessed quality at a high level ($\overline{X} = 4.46$). The model was accurate in development steps ($\overline{X} = 4.44$), and the development steps were accurate and in line with development objectives ($\overline{X} = 4.33$).

In addition, the connoisseurs regarded that the model of supervising, monitoring, and evaluating the research capabilities for developing instruction of student teachers was quite completed as it was conclusively developed in line with the objectives. As a result, it was considered to possess good quality which could be employed in the research in order to produce products and outcomes as stated in the objectives. However, when employing the model, the details of the components were supposed to be added into the model draft. These were supposed to reflect the operation expressing the procedural relationship and the activities held by program university supervisors, general university supervisors, and mentor teachers on supervising, monitoring, and

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evaluating the research capabilities for developing instruction of student teachers. And, the manual of model utilization was supposed to be provided on a basis of the steps in developing the research capabilities for developing instruction of student teachers.

5.2.2 The utilization results of the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers

In terms of exploring the utilization results of the model of supervising, monitoring, and evaluating research capabilities for developing instruction of student teachers, the researcher determined to explore the performance results of operating research for developing instruction of student teachers and students' learning quality. This was based on the concepts of Somboon Tanya (2002) and Tay Chiengchee (2006) who mentioned that the evaluation was important in that it would help judge the value of those evaluated. The answers gained would be utilized in various aspects via evaluating the advancement in order to apply the results to improve and develop the operation effectively. The overall evaluation could be summarized in order to express the efficiency of the previous operation and make a decision on future operation.

(1) In terms of research capabilities of the students, it was found that 14 student teachers possessed the evaluation results of their research proposals at an excellent level or 35 percent; 20 student teachers passed at a good level or 50 percent; six student teachers at a fair level or 15 percent, respectively. As for the evaluation of research reports for developing instruction, it was found that 22 student teachers possessed the evaluation results of their research reports for developing instruction at an excellent level or 55 percent; 18 student teachers passed at a good level or 45 percent. The evaluation results of the research proposals of the student teachers were at a fair level and an excellent level; the evaluation results of the research reports were at a good level and an excellent level. This relied much on the fact that the research capability development for developing instruction of student teachers was established on the supervision principle that was coordinated among program university supervisors, general university supervisors, and mentor teachers from the beginning to the destination of complete processes. It was performed on a basis of the principle of developmental supervision of Glickman, Gordon, and Ross-Gordon (2010) and clinical supervision which stimulated students to be able to employ research processes in

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developing instruction successfully as planned. This was regarded as a key mechanism in mobilizing the success of improving and developing students so that they could learn effectively through enhancing the learning together with general university supervisors, program university supervisors, mentor teachers, and student teachers in analyzing and reflecting ideas via social media networks in the creative atmosphere as mentioned in Ibarra's concept (2007). This influenced program university supervisors, general university supervisors, mentor teachers, and student teachers to develop their knowledge, ability, and skills in conducting research for developing instruction through friendly atmosphere between each other. It helped save time in learning as it was the learning during operation. Additionally, with the three-interval evaluation – before, during, and after the research operation – the problems of changing the research titles during the semester and committing plagiarism of other researchers were decreased. The evaluation during the research allowed program university supervisors, general university supervisors, and mentor teachers to record recommendations in the evaluation forms which the student teachers applied them to improve their work and recorded the results of recommendation utilization. This practice influenced the following supervisions in that the supervisors could apply the recorded results to supervise and keep them informed about the students' development continuously. According to the six rounds of supervision, it was found that the students could not operate their research as identified in the research plans when being supervised from Round 1 to Round 3 at 60, 30, and 20 percent, respectively, due to the fact that they were given a lot of school assignments. Moreover, the research tools examined by the connoisseurs were returned to them quite late. However, from Round 4 to Round 6, all of the students could operate their research as planned as a result of the cooperation in supervising and monitoring continuously.

That the student teachers possessed the learning from authentic practice could contribute to the development of the students' learning quality. The research processes for developing instruction could also generate planning skills, time management, data searching, computer utilization, and language used for communication within the student teachers (Prawat Erawan: 1999, Chatri Kerttham: 2002, Sutheera Prasertsan: 2006). Additionally, the model of supervising, monitoring, and evaluating the research capabilities for developing instruction of student teachers possessed accurate

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constructional steps based on model development steps. The researcher also determined the operational guidelines via the utilization manual of the model of supervising, monitoring, and evaluating the research capabilities for developing instruction of student teachers so that those relevant could additionally employ with their supervision, monitoring, and evaluation of research capabilities for developing instruction. This contributed to the understanding and clarity toward the correct operational guidelines based on the model of supervising, monitoring, and evaluating the research capabilities for developing instruction of student teachers.

(2) In terms of the research of the student teachers, it was found that each research work could develop students as identified in the research objectives at 75-100 percent of the student number determined or at 94.48 percent of the total student number of all research included. The cooperation among program university supervisors, general university supervisors, mentor teachers, and student teachers was conducted via the following steps. (1) They planned the supervision, monitoring, and evaluation of the research capabilities for developing instruction. (2) They observed the teaching and presented the data gained from their observation of the student teachers so that they could cooperate in analyzing research problems. (3) They selected important problems affecting learners. They had to solve one problem by employing research processes. Also, they had to explore documents and relevant research in order to identify solutions. (4) They determined the guidelines and solutions that were appropriate, possible, and practical. (5) They determined scopes or frames of operation. (6) They built mutual understanding toward methods and activities they would perform in operating the research for developing instruction. And, (7) they reinforced and gave feedback to the student teachers through one-by-one supervision and the Edmodo program throughout their teacher professional internship. These steps enabled the student teachers to receive consultation and recommendation in due course. Furthermore, the learning management via research contained reliable processes so that it could develop students as stated in the research objectives. This was in line with Pimpan Techakoop et.al. (2001), Chatri Kerdtham (2002), and Suwimol Wongwanit (2012) in that the research for developing instruction was considered key processes and mechanism in mobilizing the success in improving and developing learners to be able to learn effectively. It also developed teachers to operate their teaching efficiently.

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(3) As for the effectiveness of operating the development based on the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers, it was found that program university supervisors, general university supervisors, and mentor teachers regarded that the model possessed utility, feasibility, appropriateness, and accuracy in an overall picture at a high level. The researcher enabled those relevant to possess a correct and mutual understanding toward the principles and details of the model in that it was considered the supervision, monitoring, and evaluation aiming to develop research capabilities for developing instruction of student teachers. Moreover, the developed model was not complicated and easy to be employed. There were not many variables in the model, but they could explain the results immensely. The model consisted of three components which were (1) directions in developing research capabilities, (2) processes in developing research capabilities, and (3) evaluation of research capability development results. As for the data collection, the researcher employed various tools which made the research capabilities for developing instruction of student teachers reliable. Importantly, the model was obtained via the cooperation from all parties in giving recommendations of developing the model. This was in line with Boonchom Srisa-ard (1992) who mentioned that there were two steps in developing a model which were the step of constructing or developing the model which the researcher would construct the model primarily based on the hypothesis. It was obtained from exploring theories, concepts, models developed by others in the same topics, and research findings relevant to an analysis of various conditions and situations. This could assist in being able to determine components or various variables within the model, various relative features between components or those particular variables, and order of the model components. The model development had to rely on rational principles as key foundation and searching which would be extremely beneficial to the model development. The researcher figured out the model structure prior to the modification based on information gained from searching theories, concepts, models, or relevant research. Then, the minor components or variables were studied and selected to form a model structure. The key step lay on selecting model components in order to obtain an appropriate model.

5.3 Recommendations

The Recommendations on Utilizing the Research Findings

(1) Those who employed the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers were supposed to explore the details of the model of supervision, monitoring, and evaluating from the manual of utilizing the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers in order to possess understanding in every aspect of the content prior to employing in authentic situations.

(2) Those who employed the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers had to comprehend with those relevant in order to possess a mutual understanding toward roles, duties, and tools used to supervise, monitor, and evaluate.

(3) Those who employed the model of supervision, monitoring, and evaluating research capabilities for developing instruction of student teachers had to evaluate the utilization results of the social media networks whether they could be used as a channel for communication, sharing the learning, and sharing the feedback between the supervisors and those supervised.

(4) Those relevant had to cooperate, collaborate, pay attention, and perceive the similar destination and benefits. The procedure of teamwork was supposed to be emphasized. Due to open and clean communication, the authentic sharing of learning would be generated.

(5) Those relevant had to operate each step seriously in order to construct the authentic development for the student teachers.

The Recommendations for Further Research

The research on supervising, monitoring, and evaluating the teacher professional internship of the student teachers was supposed to be conducted for the sake of constantly learning from their authentic experience.

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