

# CHAPTER 3

## Research Methodology

The research objectives were to study and develop the mentor teachers' roles in promoting the student teachers' learning management abilities by the principle of research and development. The schemes of the research compose of 4 phases.

Phase 1 Synthesis the roles of mentor teachers in promoting the student teachers' learning management abilities

Phase 2 Study current conditions of the mentor teachers' roles and their needs for development

Phase 3 Construct a model for developing the mentor teachers' roles in promoting the student teachers' learning management abilities

Phase 4 Study the effect of a model for developing the mentor teachers' roles in promoting the student teachers' learning management abilities

### **Phase 1 Synthesis the roles of mentor teachers in promoting the student teachers' learning management abilities**

**Step 1** Data collection tools included: a document analysis record, an item evaluation form, and a focus group recording form

**Step 2** Determine the item of the roles of mentor teachers in promoting the student teachers' learning management abilities

1. Study and synthesize of 64 documents related to professional experience teacher experience teacher training of schools in the Rajabhat University Network.

2. Determine the factor and identify behavioral indicator of mentors' roles there were 5 factors as following: 1) learning management preparation, 2) learning management process, (3) instructional media, (4) learning assessment, and (5) learning to create a learning atmosphere.

**Step 3** Checking the quality of factors and behavioral indicators of the roles of mentor teachers in promoting the student teachers' learning management abilities.

1. Examine the quality of factors and behavioral indicators of the roles of mentor teachers in promoting the student teachers' learning management abilities are evaluated by 7 experts. The data were analyzed for an item-objective-congruence index, median, and interquartile range. The data of the significance is 1) index of item congruence is greater than or equal 0.80, 2) interquartile range is less than 1.50, and median greater than or equal 3.50.

2. Using focus group discussion by 5 experts to revise drafts.

## **Phase 2 Study current conditions of the mentor teachers' roles and their needs for development**

**Step 1** Data collection tools were as follow :

1. The questionnaire for the mentor teacher

The questionnaire composes of three sections. Section one concerns the context, in which the questions are choice, including 8 questions. Section two concerns the current conditions of the mentor teachers' roles, in which 5 level evaluation, including 58 items. Section three concerns the need for mentor teacher development, in which 5 level evaluation, including 11 items. Moreover, three are open-ended questions for any suggestions.

2. The questionnaire for the student teacher

The questionnaire composes of two sections. Section one concerns the context, in which the questions are choice, including 5 questions. Section two concerns the current conditions of the mentor teachers' roles, in which 5 level evaluation, including 53 items.

**Step 2** Study current conditions of the mentor teachers' roles and their needs for development.

1. Determine the population and sample group

1.1 The characteristic of sample group were as follow

1) Mentor Teachers who were appointed by the schools participated in the development of Teacher Profession of student teacher in the networks institutions of teaching professional experience of 40 Rajabhat universities around

Thailand. Mentor Teachers have been evaluated by Office for National Education Standards and Quality Assessment and are qualified according to the Teacher council of Thailand.

2) Student teachers have experienced the process of teaching professional experience course for a while which is in the middle of teaching professional experience course in the first semester of 2014 Academic Year.

#### 1.2 Using two-stage random sampling

1) Rajabhat University classified into 5 groups, Rattanakosin group, Northern group, Northeast group, Central group, and South group.

2) Random step1: Random the name of university by using criteria of 25% (Srisuk, 2009) were as follow:

**Table 3.1** The Names of Universities Randomly Selected by Rajabhat Univeristy Category

Group	Number of Population	Sample size	Name of Rajabhat University
Rattanakosin	6	2	Pranakorn, Thonburi
Northern	8	2	ChaingMai, Lampang
Northeast	12	3	Loei, Ubon Rachatani, Udon Thani
Central	9	2	Kanchanaburi, Valaya Alongkorn
South	5	2	Phuket, Surat Thani
<b>Total</b>	<b>40</b>	<b>11</b>	

3) Random step2:Random the sample group which 361 of mentor teacher and 361 of student teachers by using Krejcie and Morgan's table for determining sample size (Pechroj and Chamniprasart, 2004: 227) were as follow

**Table 3.2** Sample size of research

Name of Rajabhat University	Mentor teacher		Student teacher	
	Population size	Sample size	Population size	Sample size
Pranakorn	600	38	600	38
Thonburi	500	32	500	32
ChaingMai	1500	95	1500	95
Lampang	200	13	200	13
Loei	800	51	800	51
Ubon Rachatani	300	19	300	19
Udorn Thani	300	19	300	19
Kanchanaburi	250	16	250	16
Valaya Alongkorn	500	32	500	32
Phuket	400	25	400	25
Surat Thani	400	25	400	25
<b>Total</b>	<b>5700</b>	<b>361</b>	<b>5700</b>	<b>361</b>

1.3 Collect data from sample group by questionnaire survey, conducted between August, 2014 and October, 2014. By mail and in person, 640 out of 722 (89%) questionnaires were answered and returned to the researcher.

1.4 Examine completeness of the information in the questionnaires, and analyze the data from process;

1) Data from the questionnaire on the current conditions of the mentor teachers' roles and the needs for the mentor teachers' role development were analyzed by mean and standard deviation. Moreover, using content analysis to analyze data from open-end questionnaires.

### Phase 3 Construct a model for developing the mentor teachers' roles in promoting the student teachers' learning management abilities

**Step 1** Determine the structure of the model and methods to develop the mentor teachers' roles in promoting the student teachers' learning management abilities.

1. Study theories, teacher development principles, related research on teacher development together with the data derived from phase 2.

2. Synthesize the data to determine the structure of the model and methods to develop the mentor teachers' roles in promoting the student teachers' learning management abilities.

**Table 3.3** The result of idea, theory, principle and applied detail

Ideas, Theories and Principles	The applied detail
Maslow' s Hierarchical Theory of Motivation	Development process by using a positive attitude. Attracting the participant with sweet sound, visually friendly. Presentation with interesting situation.
Keller' s Motivation model	Beginning the development process by using attracting attention. Activities and various training techniques. Using media in training. Showing the related between training content and trainee function.
Thorndike's learning theory	To prepare the body and mind is the first thing to help encourage learning and development.
David Mc Clelland's the competency Foundation	It is insufficient to develop mentor teacher in the aspect of knowledge. It is suggested to develop the underneath potentials such as attitude and motivation in order to enhance the effective behaviors of supervising the student teachers.
Cohen's roles theory	There are three aspects of developing the roles of mentor teachers which are the knowledge of understanding the role of mentor teachers, attitude towards being a good mentor teachers and the development of the effectiveness of being a mentor teachers.

**Table 3.3 (Continued)**

<b>Ideas, Theories and Principles</b>	<b>The applied detail</b>
The adult learning theory of Malcolm Knowles	It is important to honor mentor teachers so that they can think and development autonomously. Moreover, it is also significant to encourage them emotionally rather materialistically. The contents of development should correspond with the roles.
Contemplative Education	Activities based on Contemplative Education should be implemented. The mentor teachers should be relaxed so that they can concentrate and prepare their minds in order to realize the values of themselves.
Professional Learning Community	Mentor teachers and administrators create organizational cultures which are to cooperatively think, plan, share, and exchange operation practices of the situation ways of being a mentor teacher. This can be the cycle of sustainable development of teaching procession experience course of the student teachers.
Assessment for development	Mentor teachers should reflect their own roles and consider the evaluation on their roles from student teachers who have taken the teaching profession experience course. After that, the results of the evaluation shall be used to improve the roles of mentor teachers next cycle.

3. Determine the structure of the model and methods to develop the mentor teachers' roles in promoting the student teachers' learning management abilities, with compose of three principal components. After determining the structure, create document paper of the model.

**Step 2** Examine the quality of the model for developing the mentor teachers' roles in promoting the student teachers' learning management abilities.

1. Data collection tools were as follow :

- 1) A focus group recording form
- 2) Model evaluation form

2. Propose the model to seven experts who are expertise and experienced in which; Arranging group conversation of 7 people who involved in this teaching profession experience course which are administrators of network Rajabhat University who have at least 5-year experience in managing teaching profession experience course, mentor teachers who have at least 10-year experience in teaching profession experience, and a university lecturers who have been experts in education and teaching profession experience for 5 years. Those people will join the discussion for development. To improve the model by using focus group discussion.

3. Adjust the model to the comments.

4. Revised model are evaluated by nine experts who are expertise and experienced in which; The nine experts consists of the administrators of network Rajabhat University who have at least 5-year experience in managing teaching profession experience course, mentor teachers who have at least 10-year experience in teaching profession experience, and a university lecturers who have been experts in education and teaching profession experience for 5 years. These people will consider and evaluate in aspects which are possibility, suitability, accuracy, completeness, and benefits. It will be written in the evaluation form. After that, the researcher will analyze the average and standard deviation of the date.

5. Two times for model's trial.

- 1) The first trial

The action was conducted in August, 2015. Proposing the drafts of model to three the mentor teachers who under school in Chiang Mai primary Educational Service Area Office 1. The model had determined by the clarity and the use of language in development process, how to practice, timing included collected data tools.

## 2) The second trial

The action was conducted in 18-30 September, 2015. Proposing the drafts of 3 process on model which in implementation process, sharing process, and assessment process. To try out with 2 mentor teachers who teaching in the school under Office of the Private Education Commission. Instep pre-experimental the researcher moderated the conversation about the importance of mentor teachers' roles and the guidelines leading to practice, teaching observation as planned, conversation, and giving feedback. According to the interview and data collected from conversation, it has been discovered that mentor teachers can follow the guidelines and they can be able to write the record as the form was clear. After the teaching observation, it has been demonstrated that both mentor teachers have used the results from teaching observation to exchange knowledge on Friday afternoon. It has been discovered that in the first week, there was not many issues to discuss among mentor teachers because they had never share knowledge before. In the second week, there were more issues to discuss. The mentor teachers have followed the steps of guidelines. They realized the importance of the role of being mentor teachers as it has been said that

“... As a matter of fact, mentor teachers think that they have paid attention to teaching profession experience course as it is private school and they want to protect the reputation of the school as well as the set up a clear system. However, they did not prepare anything. They only knew that there would be a student teacher assisting them in the class. After listening to directions and explanation of the mentor teachers' roles and receiving documents, they have seen more explicit details and guidelines. In the past, they did not know whether the ways they took care of student teachers were sufficient or good enough. They were uncertain about the target of the university...”

### **Phase 4 Study the effect of a model for developing the mentor teachers' roles in promoting**

#### **the student teachers' learning management abilities.**

**Step 1** Experimentally use the model for developing the mentor teachers' roles in promoting the student teachers' learning management abilities. The procedure in this stage were:



1. Chosen the institution and sample group by criteria:

1) The institution for practicing teaching profession experience course is the network teaching profession experience institution of Rajabhat Universities. 2) The administrators of institutions should have vision on developing the quality of education, be willing to participate in teaching profession experience center and implement the systematic management of teaching profession experience in educational institution. 3) Mentor teachers voluntarily participate in the development. 4) The mentor teachers should be qualified according to the Teacher council of Thailand and possess suitable characteristics of role model teachers. Details are listed in the table below;

**Table 3.4** Sample group

<b>Class</b>	<b>Public school (person)</b>	<b>Private school (person)</b>
Primary school	2	2
Secondary school	1	1
<b>Total</b>	<b>3</b>	<b>3</b>

2. The researcher, with a reference from the Faculty of Education, Chiang Mai University, requests for a permission to perform the experiment from the head master of school where the sample teachers belonged.

3. The experiment of 4 developing stages is conducted with 6 mentor teachers. The steps are as follows;

The first step is to prepare by a workshop on the topic of development mentor teachers model for teaching profession experience of network institutions between 5<sup>th</sup> – 6<sup>th</sup> November 2015 at Mercure Hotel, Mueang District, Chiang Mai. The purpose is to develop mentor teacher to have physical and mental readiness in the role of being a mentor teachers. It consists of five activities and the results of each activity are as follows;

The first activity is to prepare the mentors mentally (to create realization). It aims to develop the mentor teachers to realize the important role of being a mentor in promoting the ability of learning management. It takes around 2 hours 30 minutes. Videos about teachers and light of faith are used as the media. Also, there is open

discussion and the activity of Contemplative Education is utilized to balance and relax their mind and body. When their mind and body are relaxed, it can open their subconscious mind and create the power of creativity and work. After this activity, it has been found that the mentor teachers significantly realize the importance of their roles. They can explain the significance of their role as a mentor teacher which plays an important role to the future of Thai teachers and education in various positive aspects with supporting reasons.

The second activity is to develop their knowledge and understanding about the role of mentor teachers in promoting the ability of learning management of student teachers who have taken teaching profession experience course. It aims to develop the knowledge and understanding about the role of mentor teachers in promoting the ability of learning management of student teachers who have taken teaching profession experience course. It takes 1 hour 30 minutes. This activity allows mentors to study from case study and group discussion. After the activity, it has been demonstrated that mentor teachers have significantly acquired knowledge and understanding about the role of mentor teachers in promoting the ability of learning management of student teachers who have taken teaching profession experience course as they can clearly explain the role of mentor teachers and use it in practice.

The third activity is to develop the knowledge and understanding about the process of learning management of teacher in modern era. It aims to develop the knowledge and understanding about the process of learning management of teacher in modern era. It takes 2 hours. The activity is the process of sharing and exchanging mentor teachers' experiences as well as lecturing. After the activity, it has shown that the mentor teachers have excellently acquired knowledge and understanding about learning management of teacher in modern era. They can clearly explain the features of learning management of teacher in modern era and they can use it in practice.

The fourth activity is to develop the knowledge about supervision in learning management in coaching and mentoring system as well as giving advice. It aims to develop the knowledge about supervision in learning management in coaching and mentoring system as well as giving advice. It takes 3 hours. It is learning based activity. There are four learning bases which are the base of coaching, the base of advising, the base of supervision of learning management, and additional base that rewards people

who can answer questions. After the activity, it has been discovered that mentor teacher have acquired knowledge in excellent level about supervision on learning management, coaching, mentoring system, and giving advices. It can be seen from the increase of their score in post – test of everyone by 80 percent.

The fifth activity is the development of cooperative understanding between mentor teachers and supervising lecturers from the university. It aims to create guidelines of supervising of mentor teachers which also corresponds with the lecturers. The results of this activity shows that mentor teachers have contacted with supervising lecturers in order to set a guidelines on the same direction of supervision. It consists of many issues such as the school’s format of lesson plan will be used. Additionally issues can be suggested by supervising lecturers. Moreover, supervising lecturers shall inform the time of supervising to the student teachers every time so that they can later inform mentor teachers. The responsibilities of the student teachers are to teach, to assist other departments of the school and to submit their work on to the university on time. It has been found that the mentor teachers have more concordantly understanding of supervising lecturers from the university in excellent level as they can write at least three issues of cooperative practice guidelines between mentor teachers and supervising lecturers from the university.

The results of 5 activities are according to the scale

<b>Mean</b>	<b>The behavior level</b>
2.34-3.00	Very good
1.67-2.33	Good
1.00-1.66	Fair

**Table 3.5** Results of the study on the 5 activities of preparation

Number	Score					Mean	Level
	Activity1	Activity2	Activity3	Activity4	Activity5		
1	3	3	3	3	3	3.00	Very good
2	3	3	3	3	3	3.00	Very good
3	3	3	3	3	2	3.00	Very good
4	3	3	3	3	2	2.80	Very good
5	3	3	3	3	2	2.80	Very good
6	3	3	3	3	2	2.80	Very good

The reflection of preparation workshop divided into two groups were as follow:

**Table 3.6** The reflection of preparation workshop

Before	After
<p>“...I feel that it is going to be similar to other seminars that I have attended as the knowledgeable speakers will give guidelines and suggestions. However, there will not be much of interaction...”</p>	<p>“... I feel grateful and thankful that the academic office has given me this opportunity. It is really beneficial for producing student teacher to be a high quality teacher in the future. I would like to thank all knowledgeable speakers who are like great companions. I think other mentor teachers should have the same opportunity in the next seminar...”</p>
<p>“...I question myself why I have to attend this seminar, what the purposes of attending are as I know how to be mentor teachers. It is what I have done every semester. I also wonder that maybe there is something new that I have to learn or research result suggests that the quality of mentor teacher is low.</p>	<p>“... I have realized the importance of being mentor teacher. Being a mentor teacher is like being a university lecture or a local philosopher who has to take care of the student teachers in all aspects. I have realized that there are many things that I have to improve and develop about myself...”</p>
<p>“...I think I need to know more about methods and guidelines in systematic evaluation on student teachers because I have never attended any seminar in this field before. Therefore, I would like to seek more knowledge about effective ways of supervising student teachers...”</p>	<p>“...I have acquired knowledge and techniques from the seminar in how to take care the student teachers. I am motivated in the role of being a mentor teacher. I will use these techniques and methods with all of my student teachers that I will have to supervise so that they will become an effective teacher in the future...”</p>

**Table 3.6 (Continued)**

<b>Before</b>	<b>After</b>
<p>“...I think I do not have sufficient knowledge and capacity to be a good mentor teacher. I have made mistakes in some activities...”</p>	<p>“...I have more knowledge and understanding about the role of mentor teacher and the importance of guiding student teachers. They student teachers can later share the knowledge I have given to them to their friends and lectures. I would like to thank speaks to give us knowledge in this seminar...”</p>
<p>“...I feel excited about this seminar and I think it is going to be a good opportunity for me to develop myself. I will acquire more knowledge and understanding about being a good teacher. I personally expect the student teacher who I supervise will learn something practical from me...”</p>	<p>“...I think I have more knowledge and understanding about the process even though it is the process that I am quite familiar with. I have learnt much clearer ways of practice so that it will be beneficial for me. Also, I intend to use these guidelines to take care of my student teachers in the future...”</p>
<p>“...I do not understand the reasons of attending this seminar. Normally, I am a mentor teacher. Being a mentor teacher is just helping student teacher learn how to write a lesson plan, teaching them some teaching methods, showing them how to control classroom by giving them examples, and letting them teach by using my materials and media. Sometimes I let them adopt my materials. I finally found out that they did not initiate anything. So it is not useful for their learning at all...”</p>	<p>“...after the seminar, I have discovered that it is significant not to ignore the quality of student teachers’ teaching. Also, it is vital to advise them, encourage them, promote them how to think and behave, as well as listen to their reflections on the duty of mentor teacher. These are also important to me in terms of self development...”</p>

After the preparation of mentor teachers, the mentor teachers can learn by doing according to formats and process that have been informed. The process leads to practice. The sharing activity and following up by evaluation will not be separated. The process will be implemented continuously during the teaching profession experience courses. The details are illustrated below;

The second step is leading to practice. The development of stage is to learn by practice in real situation. The systematic supervision can be divided into three steps which are to plan, to observe, and to reflect during the teaching profession experience course in the second semester of 2015 Academic Year. The center of teaching profession experience course have created a Facebook page known as community of learning on teaching profession experience course in order to follow up, exchange opinion between mentor teachers and the center in many issues such as scheduling the time table of each activity, question and question session and encouraging positive attitude towards learning management.

The third stage is to set up learning and sharing activity. The development in this stage is the practice after teaching observation of the students. After that, there is a meeting of sub-group in order to ask for advice with mentor teachers of the schools in order to share about the behaviors of learning management and advise the students. In each meeting, the mentor teachers can use techniques and good guidelines to improve their supervision plan for student teachers next time. There will be two meeting per month. Every month, there will be a meeting between mentor teacher and administrators of the schools in order to follow up, discuss, share and exchange knowledge, find a common solutions leading to the results of the next supervision plan. The roles of the center of teaching profession experience are to notify and remind about the schedule of mentor teachers in each institution, to answer questions, to advise on some problems during the teaching profession experience course, to encourage and inform news about education.

The fourth steps is to follow up by evaluation. The evaluation of the results of mentor teachers' performance is a constant reflection on the role of mentor teacher from student teachers who take teaching profession experience course so that the mentor teachers can use the results to develop and plan for the next supervision. The student teachers periodically write a reflection on the role of mentor teachers after being supervised by the mentors. The mentors shall accept the result of the reflection with open-minded attitude and the mentors

shall use it to indicate the improvement of self-development from the results of the reflection in order to improve their supervision in the future.

The results from the three stages of development can be concluded that the mentor teachers of every institution have written an action plan of 3 sharing and supervising meeting. The majority of the meetings are informal which has been done after monthly meeting. The place of the meeting is meeting room or teacher's room. Schools under Educational Service Area have conducted more meetings when compared to schools under Office of the National Primary Education Commission. For the following up stage which is done by evaluation, it has been discovered that mentor teachers have promoted that atmosphere that encourages student teachers to express their opinions and reflect the role of mentor teachers so that the results can be used to improve the role of mentor teachers in the future. Most of them reflected about the needs of advice on how to control classroom, classroom management for students with special needs, and teaching media. It has been found that the role of mentor teachers is an advisor, who allows them to study from teaching examples of the mentors, encourages them, compliments, and talks about teaching career in a positive way, suggest them about developing portfolio. Mentor teachers also need to improve in certain areas which are the role of encouraging student teachers, arousing students' interests, supervising on the use of media and technology. The evaluation of behaviors after the development stage of leading to practice, learning and sharing activity and following by an evaluation are illustrated in the table 3.7

**Table 3.7** The results of the study on implementation process, sharing process and assessment process.

Number	Score			Mean	Level
	implementation	sharing	assessment		
1	2	2	2	2.00	Good
2	2	2	2	2.00	Good
3	2	3	3	2.67	Very good
4	3	3	3	3.00	Very good
5	3	3	3	3.00	Very good
6	2	2	3	2.33	Good

**Step 2** Study the effect of a model for developing the mentor teachers' roles in promoting the student teachers' learning management abilities.

1. Data collection tools included: evaluation form on mentor teachers' roles behavioral, questionnaire on mentor teacher's satisfaction, evaluation form on learning management ability of student teacher.

2. Collect data after the development process.

1) The mentor teachers' roles were collected in the final period of professional experience teacher training, conducted in the second semester of academic year 2016. There were three group of assessor included: the mentor teacher, the head of mentor teacher, and the student teacher. The results of this period are according to the scale.

Mean	Level
4.51 -5.00	means the appropriateness of mentor teachers' roles is the most
3.51-4.50	means the appropriateness of mentor teachers' roles is much
2.51-3.50	means the appropriateness of mentor teachers' roles is moderate
1.51-2.50	means the appropriateness of mentor teachers' roles is little
1.00-1.50	means the appropriateness of mentor teachers' roles is the least

2) The learning management abilities of student teachers were collected in the final period of professional experience teacher training. There were three groups of assessor include: the mentor teacher, the supervisor of student teacher, and the student teacher. The results of this period are according to the scale.

Mean	Level
4.51 -5.00	the most
3.51-4.50	much
2.51-3.50	moderate
1.51-2.50	little
1.00-1.50	the least

3) Check the consistency of the scores from multiple sources by using Rater Agreement Index: RAI in case; many behavioral indicators, one case has been evaluated, multi rater. Bury-Stock theory was developed by Surachai Meechan (2004)



4) The mentor teachers' satisfaction in the development process of a model for developing the mentor teachers' roles in promoting the student teachers' learning management abilities. The data were collected in the final period of professional experience teacher training. The data were analyzed by mean and standard deviation. The scale are according,

Mean	Level
4.51 -5.00	the most
3.51-4.50	much
2.51-3.50	moderate
1.51-2.50	little
1.00-1.50	the least

5) Using content analysis for the data of interviews with opinion, problem and obstacle.

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