Chapter 5

Conclusion, Discussions, and Suggestions

Research about the empowerment-based supervision model for learning management capacity development of mathematics teacher, School under Office of Primary Education Service Area in Upper Northern Region, Using a research & development process that has the objective to: 1) Analysis of the factors and indicators of the empowerment-based supervision. 2) Create the empowerment-based supervision model. 3) Study the implementation of the empowerment-based supervision model for learning management capacity development of mathematics teacher, School under Office of Primary Education Service Area in Upper Northern Region.

Research methodology is divided into 3 phases such as : 1) The factors and indicators of the empowerment-based supervision analyzing. 2) Creating the empowerment-based supervision model. 3) Studying the implementation of the empowerment-based supervision model for learning management capacity development of mathematics teacher, School under Office of Primary Education Service Area in Upper Northern Region, the details of the operation were as follows:

Phase 1: The factors and indicators of the empowerment-based supervision analyzing, The sample were 1,152 mathematic teachers in the School under Office of Primary Education Service Area in Upper Northern Region, by stratified random sampling was used in the study: The record form for the synthesis of factors and indicators of educational supervision, use record form for the synthesis of factors and indicators of empowerment, interview form, questionnaire, and evaluation form of consistency factors and indicators of the empowerment-based supervision, The qualitative data analysis by content analysis and the quantitative data analysis by factor analysis.

Phase 2: Creating the empowerment-based supervision model for learning management capacity development of mathematics teacher, School under Office of Primary Education Service Area in Upper Northern Region. The sample were 23

supervisors who are responsible for supervising the mathematics learning management in the School under Office of Primary Education Service Area in Upper Northern Region. Considered by selection from the supervisors who are responsible for supervising the mathematics learning management. The instruments used in the study were: The records form of focus groups, questionnaire, the qualitative data analysis by content analysis, and the quantitative data analysis by mean and standard deviation.

Phase 3: Study the implementation of the empowerment - based supervision model for learning management capacity development of mathematics teacher, School under Office of Primary Education Service Area in Upper Northern Region. The sample were 8 mathematics teachers. These were considered and selected from whom were interested participants of the research. The instruments used in the study were: A questionnaire form to take the supervisory of developing the learning management of mathematics teachers. An evaluation form of the capacity in learning management, a supervision records form, the qualitative data analysis by content analysis, and the quantitative data analysis by mean and standard deviation.

5.1 Conclusion

This research has created new knowledge about supervision of mathematics learning management of supervisors who are responsible for supervising the learning management of mathematics teachers, School Under Office of Primary Education Service Area in Upper Northern Region by using the research and development process. The researchers' performance in 3 phases such as: Phase 1, The factors and indicators of the empowerment - based supervision analyzing. Phase 2; Create the empowerment - based supervision model. Phase 3, Study the implementation of the empowerment - based supervision model for learning management capacity development of mathematics teacher, School under Office of Primary Education Service Area in Upper Northern Region, The researchers concluded the result of research as follows:

1. The results of factors and indicators of the empowerment - based supervision analyzing found that contains 8 factors such as: The first factor; Clear common establishing for working acceptance. Second factor; Learning management factors supporting. Third factor; Encouraged to self – determination. Forth factor; Learning management cooperation

promoting. Sixth factor; Learning management data Recognition. Seventh factor; Self esteem recognition, and the eighth factor; Learning network. These can be seen as a base for 77 articles that can describe the characteristic of all factors. When considering the consistency of the indicators with factors, Found that consistency in 75 indicators that were consistent with the factors and indicator. But 2 indicators did not such as: The media of mathematics learning contests, and the contest of measurement tools for mathematics learning.

- 2. The result of creating the empowerment-based supervision model for learning management capacity development of mathematics teacher, School under office of primary education service area in upper northern region, Found that the model created with these factors the following: The concept principle, objective, conditions, process, and the model effectiveness, The result of evaluation of the quality of the model in the overall was the most level.
- 3. The results of the implementation of the empowerment based supervision model for learning management capacity development of mathematics teacher, School under Office of Primary Education Service Area in Upper Northern Region. Found that the capacity for learning management of mathematics teachers after supervision WG MAI were as much level.

5.2 Discussion

1. The results of factors and indicators of the empowerment-based supervision analyzing found that contains 8 factors such as: The first factor; Clear common establishing for working acceptance. Second factor; Learning management factors supporting. Third factor; Encouraged to self-determination. Forth factor; Learning management capacity building. Fifth factor; Learning management cooperation promoting. Sixth factor; Learning management data Recognition. Seventh factor; Self esteem recognition, And eighth factor; Learning network. These can be seen as a base for 77 articles that can describe the characteristic of all factors by the performance of the empowerment - based supervision for 77 articles that can describe the characteristic of all factors. The collaboration in the workplace when compared to the important factors gained from study, Showed the concept and theory about empowerment model and found that: 1) The first important factor, The recognition of learning management

data was consistent with first factor, Clear common establishing for working acceptance. And the sixth factor, Learning management data Recognition. 2) The second important factor, The knowledge and the capacity to create a learning management was consistent with the fourth factor, Learning management capacity building. And the eighth factor, Learning network. 3) The third important factor, The learning management reinforcement was consistent with the second factor, Learning management factors supporting. and 4) The forth important factor, The Recognition of self—esteem and learning management capacity was consistent with the third factor, Encouraged to self—determination. The fifth factor, Learning management cooperation promoting, and the seventh factor, Self esteem recognition, When considering each factors, and in comparison with theoretical concepts of empowerment found that;

First factor; Clear common establishing for working acceptance was consistent with the equity theory of J. Stacy Adams that developed in 1965 presented by Hoy & Miskel. (2001, p. 143 - 157). Equity theory believed that people wanted to be treated equally, Earn rewards, And the benefits appropriate with the practice or legal status of a person that all parties agree on value and recognition of the membership. It is important factor in empowerment of the work and consistently with the concept about empowerment the work of teachers of Blasé & Blasé (1994, p. 1), They said that the empowerment of work for teachers may be made by the trusting in the knowledge, capacity, and professionalism of teachers to build support for teachers and accept the value of their work.

Second factor; Learning management factors supporting was consistent with the goal setting theory of Hoy & Miskel. (2001, p. 126 - 137), They believed that by getting the supporting factors into practice, This would help the empowered to achieve their goal more completely and consistently with the concept of empowerment according to the work of teachers Blasé & Blasé (1994, p. 1), While supporting the resources for the operation of teachers.

Third factor; Encouraged to self – determination was consistent with the self - determination theory of Borich & Tobari (1995, p. 242), which stresses the importance and mentions that people have the capacity to think, Decided, And to define the plans of their actions. They can make notification and understand their situation and be creative using resources for the benefit of the work. Meanwhile, They are ready to accept the

consequences no matter what, and practice in any way. They can focus on personnel issues and are free to express their potential, capacity, and can make a choice. Having the right to choose their own practice with awareness of the obligations and circumstances consistent with the concept of empowerment in the work of Kanpol (1999, p. 52). Kanpol suggests that the teacher who has the authority, The power to decide, and the freedom of teachers, can control the power of work as a experts for the teacher.

Forth factor; Learning management capacity building was consistent with the self-determination theory of Borich & Tobari (1995, p. 242) who believed that people want to have competence needs, and have learning, and the practice of skills that will lead to the goal, Consistent with the concept about the empowerment the work of teachers. Klecker & Loadman (1996, p. 10) suggests the study of the empowerment of work of teachers, By observing the behavior and knowledge of the subject content and the implementation for the teaching profession.

Fifth factor; Learning management cooperation promoting was consistent with the self - control theory of Kouzes & Posner (1995, p. 184). They believed that this feature is available because empowerment inside is able to influence decisions, Define the actions that affect their work, and apply the reasons for the operation. Actions that show people can control themselves such as: Define their own lifestyle and habits, Make decisions rationally, They can collaborate with others, and be ready to change. This capacity to self-control is a fundamental qualification of empowerment in the workplace and consistent with self-determination theory of Borich &Tobari (1995, p.242). Borich &Tobari believed that people want to have relationship needs that lead to the safety and security of work, A nice friendly working environment among colleagues and stakeholders.

Sixth factor; Learning management data Recognitionwas consistent with goal setting theory of Hoy & Miskel. (2001, p. 126 - 137). They believed that the goals of the people were very important, and must be considered before using any method for the development of teachers and staff. Getting feedback about the achieving issue of work will have a positive effect on the performance of associates and lead to the empowerment of work.

Seventh factor; Self esteem recognition was consistent with the equity theory of J.Stacy Adams that was developed in 1965. Presented by Hoy & Miskel. (2001, p. 143-157). They believed that people should be treated equally and accept the value of their membership, Respecting each other is the important factor in empowering the work of personnel, And is consistent with the concept about the empowerment the work of teachers of Blasé & Blasé (1994, p.1). They said that acceptance and trust in knowledge, Capacity, The professionalism of teachers is the factor of empowerment the work of teachers.

Eighth factor; Learning network was consistent with the concept about practice is the empowerment the work of teachers of Terry (1999, p. 5 - 6). Terry suggests that the empowerment of work for teachers can be done by creating the acceptance in knowledge and the capacities and performance of colleagues and to do so jointly will develop it better.

The consistent monitoring of results of the indicators on each factor of the empowerment - based supervision, Found that the indicators were consistent with the factors for 75 indicators, And that did not consistent to the factors for 2 indicators. This shows that the considerations about consistency of indicators and factors of experts in focus groups, were consistent with the empirical data collection from the opinion of mathematics teachers. The indicator that experts considered that did not correspond to the factors were: The media of mathematics learning contest, and the contest of measurement tools. The mathematics learning by experts had considered together in focus groups that the performance of both these items did not create a learning network, But it is a contest or competition. The experts proposed to remove it because cannot be classified into other factors. Due to the factor loading was less than 0.30. Which is not based on the principles to create the factors that have contain with a variable a factor loading form .30 and up (Phetnoy Singchangchai, 2003, pages 176-178). Therefore, The researcher have cut out this operation which is consistent with the recommendations of Johnstone (1981, P.5 - 8) and Waro Pengsawat (2010, page 10). They said that, the indicator or variable is one that will point out a situation of different scenario sometimes. The selection must be a selected indicatorsor variables that are important and can describe the circumstances and the purposes of the implementation. These must meet the weighted criteria in order of importance of the indicators or variables.

Researchers can then improve or cut indicator or variables that are not important to them. These deliberations will provide an indicator or variables created that give benefit when apply it.

- 2. The result of creating the empowerment-based supervision model for learning management capacity development of mathematics teacher, School under Office of Primary Education Service Area in Upper Northern Region. It was found that the model that created had factors such as: The concept principle, objectivity, conditions, process, and the model effectiveness consistent with educational results of Brown and Moberg (1980, p. 16-17), Somboon Sirisanhiran (2004, pages 354-355), Chanoknard Chunchey (2007, pages 179-180), and Teera Runjareoun(2007, page 32). These researchers found the conclusion together that the model was a core factor, Such as: The concept principle of the model, the purpose of the model, the model conditions, the process, mechanism, method, media of model, and the model evaluation. For monitoring the quality of the empowerment-based supervision model for learning management capacity development of mathematics teacher, School under Office of Primary Education Service Area in Upper Northern Region, From the experts on issues regarding standards:1) Accuracy 2) Propriety 3) Utility and 4) Feasibility was the most level. Probably because of the empowerment-based supervision model for learning management capacity development of mathematics teacher, School under Office of Primary Education Service Area in Upper Northern Region. The performance of the creation gave an orderly process of creation and development supervision model in 8 stages such as: 1) Review the documents and the research that related to define the concept. 2) Study the information from the experts involved in the interview. 3) Synthesis of the model and supervision methods. 4) Creating a model. 5) Monitoring the quality of the model by experts. 6) Apply the trial and reforming the model. 7) Model evaluation. 8) Model presentation. (Boonchom Srisaat 1992, pages 104-106. Cited in Tiwarak Sereephap, 2005, page 62 and Watchara Lawriendee 2011, Pages, 223-226).
- 3. The results of learning management capacity of mathematics teachers found that the capacity for learning management of mathematics teachers after supervision were as much level. When consideration, based on defined criteria is much level (Mean of 1.34 and up). Mathematics teachers had the capacity for learning management passed the criteria because of the supervision operations of supervisors that was conducted in

an orderly fashion such as: 1. The stage of preparation of supervision by performance of needs assessment and learning management evaluation before supervision for teachers and supervisors having information about the capacity of learning management of mathematics teacher before supervision. 2. The supervision operations stage, performance supervision according to the needs of individual mathematics teachers by selecting the operation specific activities that it needs in high levels. The performance was in the supervision model of a group in case there is a need to synchronize, and the individual will make the supervision that can be implemented based on the real target and capacity to develop the learning management of each teachers effectively. 3. The supervision reflection stage. This was accomplished by assessing the capacity of learning management after supervision and asking the opinions of mathematics teachers. Performance of the supervision in this model was consistent with the concept of effective supervision. It implemented in stages, with the goal to improve or develop learning management of teachers, making a study of current conditions, defining problems and the needs of the learning management, defining the method, choosing the operations and goals together, using supervision operations of both individual and group, supporting teachers to solve problems by themselves, and for the teachers to see their importance and talent of value. Teachers must sense factors of support and encouragement of each other, giving consultation and continuously providing operational assessment. (Sergiovanni and Starratt, 1988, p. 8–10, Walairat Boonsawat, 1995, pages 30-32 Garubo and Rothstein, 1998, p. 1–8, and the Office of the National Primary Education, 2002, pages 8-10).

The inquiry found that supervision be able to learn about the method of learning management, grading assessment, using the supportive media and materials in the operation, to receive the honor from the relevant authorities, and to encourage work consistent with the concept of Weightman (1999, p. 137). Weightman said that teachers who have been empowered will have a sense of satisfaction that will developed intelligence, skills, capacity, prosperity, a tolerance for error, and Goens & Clover (1991, p. 228) mention that people who have been empowered to work will understand a way of life that depends on what they do because they are the people who receive the consequences of their actions. Personnel who have been empowered to work will understand the perception of meaning, the important of their job, work portfolio, and that the pace to reach the destination is a commitment that is made on their own, knowing what they have to do and how to do it.

5.3 Suggestion

1. Suggestion for supervision model applying

- 1.1 Before applying the empowerment based supervision model, Supervisors should study the concept until they understand all about empowerment of work for the teacher.
- 1.2 Supervisors should explain about the benefits of the needs assessment and assessing the capacity of learning management before and after supervision of the teachers, who must understand because it will help them to get cooperation and real information.
- 1.3 Operations should continue with the target group that has a small amount of participants first, and then expand the target group to the large number.
- 1.4 The duration of the operation should start from the second school recess, because it has need to carry out various activities during school recess such as: operational training and preparation of media for learning to prepare the curriculum for next semester.

2. Suggestions for further research

- 2.1 Conduct a study on the empowerment-based supervision to develop the capacity of learning management of others teachers in another subject or in other areas.
- 2.2 Conduct a study on the development model of individual supervisors to advance the knowledge and capacity of learning management supervision by the empowerment-based supervision model.
- 2.3 Conduct a study on the development for a team by using the empowerment-based supervision model.

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