

CHAPTER 3

METHODOLOGY

This was a model development of active measures to reduce and prevent stress of elementary teachers in private schools. This research was applied to participatory concepts consists of **participatory** action research and a model of the learning process. Another concept was problem solving analytical process which composed of planning, implementation, monitoring evaluation, and act (improved and changed). Development these concepts through informal and formal group meetings. The purpose of this study were to identify the stress situation among elementary teachers in private schools, and to study the process of model development of active measures.

The methodology of the study was enumerated in the following steps in this chapter.

1. Research design
2. Population and samples
3. Ethical consideration
4. Research instruments
5. Creation and development of study tools
6. Procedure of participatory action research
7. Data analysis

3.1 Research design

The study was conducted with participatory action research design. This research emphasized the concept of a model of the learning process of David A. Kolb shown in chapter 2 (figure 5) which was applied with a model development of actives measures to prevent stress of elementary teachers in this study. The study was divided into two main phases illustrated in the diagram in Figure 6

Phase 1: Determined the stress situation among elementary teachers in private schools under the jurisdiction of the second Patumthani Officer of Education Service Area. The survey was carried out in four areas which included demographic characteristics, results of stress levels of elementary school teachers, association between demographic characteristics and stress of elementary school teachers and results of stress levels of the administrators.

Phase 2: Study the learning process in the model development of active measures to prevent stress of elementary teachers in private school. The concepts of participation research were used as tools for building participative management through informal and formal group meetings.



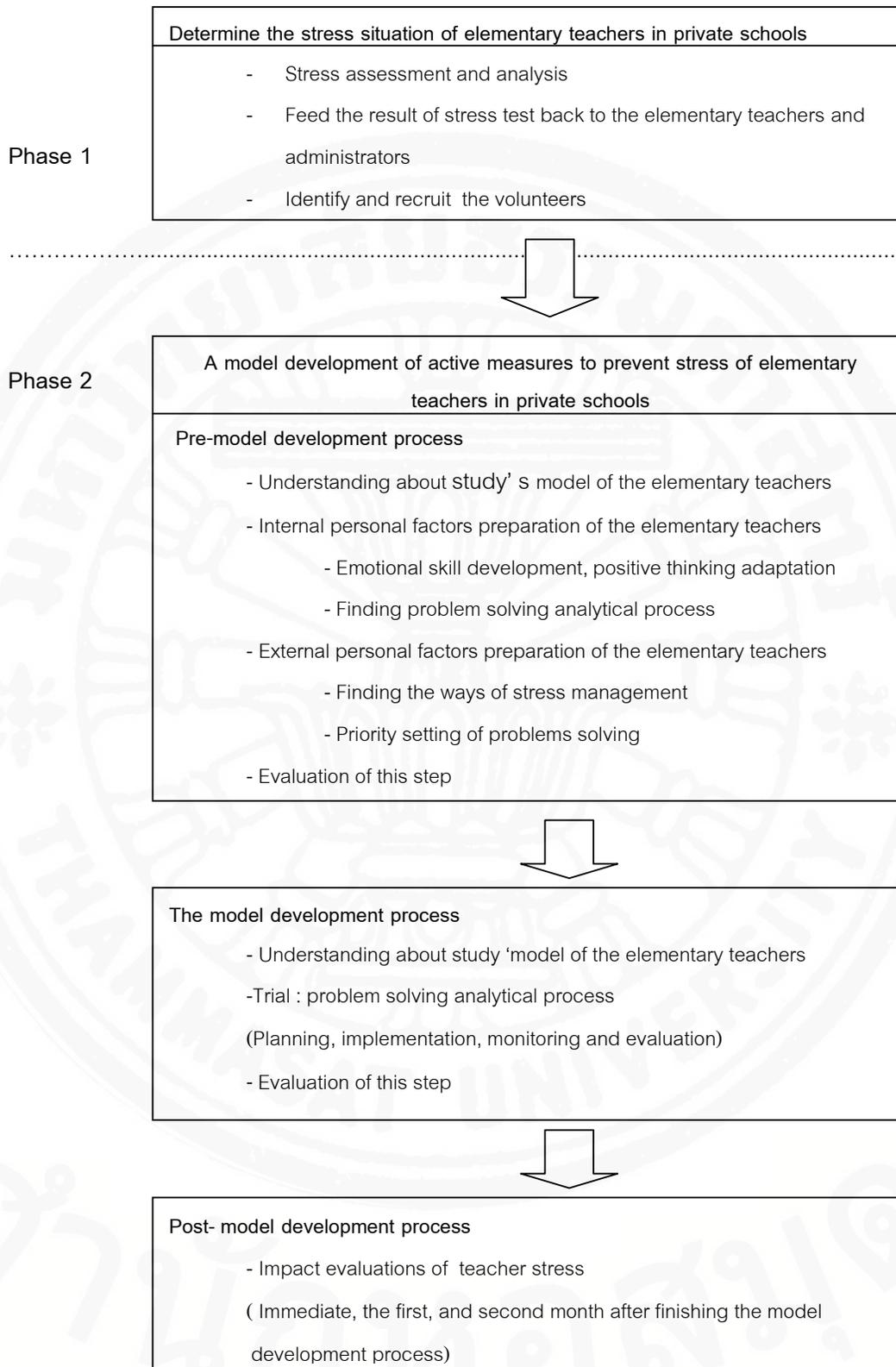


Figure 6 : **Phases** of pre model and model development process for reducing and preventing stress

3.2 Population and samples

The population were elementary teachers in private schools. The study was conducted in two phases :

Phase 1 : There were three main steps of population and samples as follows:

1. The schools selection : Purposive sampling **technique** of the schools under the jurisdiction of the second Patumthani Officer of Education Service Area (2004, pp. 8-12) were used to select all 26 schools which were divided into four groups according to location characteristics which were easy to communicate and participate in activities of each group. (Levey, 1980, p.56) as follows:

1.1 The first group, 6 schools were of 1.1.1, 1.1.2, 1.1.3, 1.1.4, 1.1.5 and 1.1.6

1.2 The second group, 6 schools were of 1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5 and 1.2.6.

1.3 The third group, 7 schools were of 1.3.1, 1.3.2, 1.3.3, 1.3.4 1.3.5, 1.3.6 and 1.3.7

1.4 The fourth group, 7 schools were of 1.4.1, 1.4.2, 1.4.3, 1.4.4 1.4.5, 1.4.6 and 1.4.7.

2. The elementary teachers selection: Purposive sampling technique was used to select all 670 elementary teachers who were teaching in elementary level of four school groups consists of 125, 115, 218, and 212 elementary teachers of the first, second, third and fourth group, respectively.

3. The administrators selection: Purposive sampling technique was used to select all 26 administrators who were administrators in elementary school level of four groups.

These steps were shown in table 4

Table 4

The number of samples in phase 1, the purposive sampling techniques by divided the groups of school, four group schools

The groups of each school	The member of each group	The number of elementary teachers	The number of administrators
1	1.1.1	52	1
	1.1.2	16	1
	1.1.3	27	1
	1.1.4	12	1
	1.1.5	7	1
	1.1.6	11	1
Total		125	6
2	1.2.1	56	1
	1.2.2	22	1
	1.2.3	16	1
	1.2.4	8	1
	1.2.5.	6	1
	1.2.6	7	1
Total		115	6
3	1.3.1	17	1
	1.3.2	57	1
	1.3.3.	61	1
	1.3.4.	32	1

Table 4 (Continued)

The groups of each school	The member of each group	The number of elementary teachers	The number of administrators
	1.3.5	27	1
	1.3.6	15	1
	1.3.7	9	1
	Total	218	7
4	1.4.1	60	1
	1.4.2	18	1
	1.4.3	68	1
	1.4.4	24	1
	1.4.5	14	1
	1.4.6	17	1
	1.4.7	11	1
	Total	212	7
Total		696	

Phase 2 : The studied population derived from phase 1 of only one group out of four groups of the second Patumthani Officer of Education Service Area. This study aimed to study process of the model development of active measures to prevent stress of elementary teachers in private schools which focused participative behavioral change according to a model of the learning process through informal and formal group meetings. These samples were considered to be appropriate for this study. So, steps of samples selection for this phase were as follows:

1. The group schools selection: Cluster random sampling techniques were used to select only one out of four groups from phase 1. which = 25 % out of four groups. The group chosen was the fourth one, which composed of seven schools.

2. The schools sizes selection of within the fourth group: Stratified random sampling techniques were used to select all sizes which were divided into three sizes namely large, middle and small sizes.

3. Each size of school selection: Cluster random sampling techniques were used to select only one school of each size internal the fourth group namely 1.4.3, 1.4.5 and 1.4.7 schools of large, middle and small size, respectively, who were willing to participate in the model development process.

These steps were shown in Figure 7

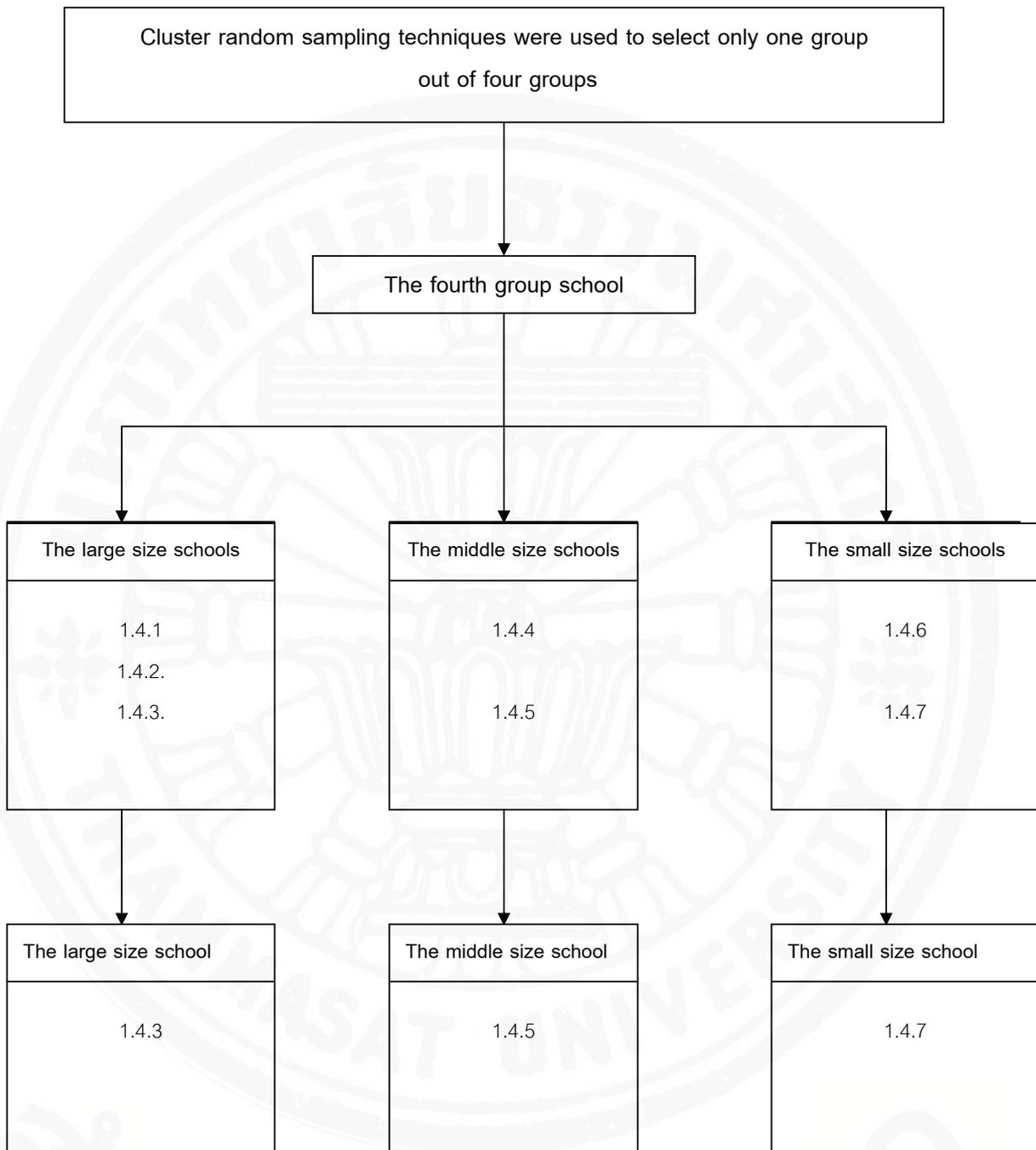


Figure 7: The steps of samples selection in phase 2: The model development of active measures to prevent stress of elementary teachers in private schools.

3.3 Ethical consideration (Appendix A)

3.3.1 This study was approved by the research advisory committee as well as ethical reviewed committee of Faculty of Medicine Thammasat University who would review both scientific and ethical research aspects, including informed consent form.

3.3.2 Before the study both phases 1 and 2, the researcher also got the permission from elementary teachers of each school size.

3.4 Research instruments

This study was divided into two phases, so the research instruments also were divided into two sets as follows:

3.4.1 Phase 1: To determine the stress situation of elementary teachers in private schools

The research instrument used Suanprung questionnaires 60 items, for Thai-people (Appendix B1-B3). (Suwat Mahusnirunkul, et al.,1997, p.99,134-140)

3.4.2 Phase 2: Study the learning process in the model development of active measures for reducing and preventing stress of elementary teachers in private schools

3.4.2.1 Elementary Teachers development tools (document preparation for informal and formal group meeting and relevant persons)

- 1) Master plan of this study (Appendix C1.1)
- 2) Perception of the internal researchers on previous and new experiences acquired from documents and group meetings.
- 3) Coordination advise from administrators.
- 4) Documents that relevant with this study were given to the participations into 2 steps i.e. pre-model development process (Appendix C1.2) and the model development process (Appendix C1.3).

3.4.2.2 The pre model, model and post development process tools which were developed by the group process could be divided into six sets of questionnaires i.e.

- 1) Interactive team application form (Appendix C1.4)
- 2) Behavioral observation of group process application form (Appendix C1.5)
- 3) Behavioral observation of problem solving process application form (Appendix C1.6)
- 4) Stress management questionnaire (Appendix C1.7) which these composed of stress' factors management and stress' symptoms management. Each part was subdivided into four main ways consisted of : the ways of short and long periods, family, and society.
- 5) The overall evaluation of pre-model and model development questionnaire (Appendix C1.8)
- 6) Stress test of Suanprung 60 items, for Thai-people, (Appendix B)

3.5 Creation and development of study tools

The research instruments described above were created and developed for: stress management questionnaire and application forms according to the following five steps:

Step 1: Review the relevant theories and literatures of stress management, Interactive team, behavioral observation of group and problem solving process

Step 2: Define the scope and framework of interesting topics in questionnaires, observation, and together with implementation the criteria for assessment.

Step 3: Devise questions or compose items for the questionnaire and together with implementation the criteria for assessment.

Step 4: From step 3 was sent to experts (Appendix D) in the relevant area of mental health especially, stress management for comment and approval in order to validity content test of clear and correct language. (Nunnally and Bernstein, 1994, pp. 84-94).

Step 5: These sets of questionnaires from step 4 were corrected and improved.

These five steps were validity content but reliability depended on experts because of this questionnaire non-rating scale but survey only frequency prior to selecting stress management.

3.6 Procedure of Participatory Action Research

The procedure of participatory action research was described in two phases as followed:

Phase 1: Determine the stress situation among elementary teachers in private schools

This phase was conducted in three steps:

Step 1: A set of self response questionnaire which were Suanprung questionnaires 60 items were given to 697 participants consists of 670 elementary teachers and 26 school administrators in each group school under the second Patumthani Officer of Education Service Area.

Step 2: All the collected data from a set of self response questionnaire were analyzed results of stress test both the overall and individual levels stress of participants.

Step 3: Report the result back to the participants.

Phase 2: Study the learning process in the model development of active measures for reducing and preventing stress of elementary teachers in private schools

This phase was conducted in three main steps

Step 1: Pre-model development learning process

This step was conducted in four main steps

1. Preparation about understanding to study' model of participants in each school size.

2. Internal personal factors preparation :

2.1 Emotional skill development

2.2 Positive thinking skill development

2.3 Identify problem solving skill development

3. External personal factors preparation :

3.1 Finding the ways of stress management together

3.2 Priority setting of problem solving together

4. Evaluation about pre-model development learning process

4.1 Before studying in each step, elementary teacher each school size were explained to for observed and record the results of the study in each step and new learning

4.2 After finishing each step of internal and external personal factors preparation, researchers formed group meeting to make the conclusion together.

Step 2: The model development learning process

This step was conducted in six main steps

1. Preparation of the participants in understanding the study' model in each school size

2. Planning:

2.1 Data correction and problem solving analytical process

2.2 Finding the ways of problem solving for reducing and preventing stress of participants

3. Implementation:

The participants took action by creating the plan together.

4. Monitoring:

Monitoring was conducted to observe activity of participants which emphasized the participatory decision making to adapt the activities that enhancing the ways of problem solving,

5. Evaluation:

5.1 Evaluation was to select proper ways before finishing the projects for the guide of the same or resemble problem

5.2 The participants concluded the findings the problems from model development process and readjusted to identify to relieve or prevent stress.

5.3 Any new issue raised the same process cycle would be carried out.

6. Evaluation about the model development learning process

6.1 Before studying in each step to explain with elementary teacher each school size for observing and recording the results of the study in each step and new learning

6.2. After finishing each step namely planning, implementation, monitoring and evaluation the teachers and the research would have the meeting to find the conclusion together.

Step 1 and step 2 were data collected two steps:

Informal group meetings

1. Collecting data from the chosen research setting was **the fourth group of the** second Patumthani Officer of Education Service Area, consists of three size school : large, middle, small schools. Using the questionnaire on stress management for 19 elementary teachers in private schools

2. Using the interview each member of each school size to schedule

3. Each school size of data collectors had a mobile phone to contact the researcher when ever necessary, or problems occurred.

4. Some time, extra sub-group meeting about problems of trial, the model development process.

Formal group meetings

The participant observation formed groups activities according to application form, composed of 1) Interactive team application form, 2) Behavioral observation of group process application form, and 3) Behavioral observation of problem solving process application form

Step 3: The post-model development learning process

This step was conducted evaluation in three steps: evaluate both stress test and stress management immediately, the first, second months after finishing their projects.

Collecting data from three sizes schools: large, middle, small. Using the questionnaire on stress test of Suanprung 60 item, for Thai-people and stress management questionnaire for elementary teachers in private schools.

3.7 Data analysis

The data were analyzed and separated into phases by their steps of model development learning process. Before started with researcher checked for the completeness of the data in each questionnaire and field record built a coding manual. After coded all the data, it were analyzed by using commercial statistical analysis software as followed:

Phase 1: Determine the stress situation of elementary teachers in private schools

The statistics were used in this phase as followed:

1. Descriptive statistics: frequency and percent distribution were used to describe demographic characteristics of the studied population.
2. Interpretation of stress test from comparative table's the scores of the variables of stress levels (appendix B3). There were both overall and individual stress levels of each school.
3. Inferential statistics: chi square test was used to described correlation between demographic characteristics and stress of elementary teachers

Phase 2: Study the learning process in the model development of active measures for reducing and preventing stress of elementary teachers in private schools

1. Descriptive statistics: frequency and percent distribution were used to describe stress test and stress management of the studied participants for private schools of each school size, impact evaluation both stress test and stress management of each size school.
2. Interpretation about stress test from comparative table' the scores of the variables of stress levels (appendix B3) from the test of each individual, each school size. Immediate, the first month, and the second month after finishing the model development process of the individual of each school.

3. Inferential statistics:

3.1 Chi square test was used to described correlation between demographic characteristics and stress of elementary teachers.

3.2 Repeat measures to compare was used to described job stress-mean value of pre-model and post-model development (immediately, the first and second of month after finishing this program)

