CHAPTER 3

METHODOLOGY

This chapter describes the methodology used for this study. It consists of a description of research design and the procedures and methods performed to make this study. These will be described in the ensuing text in the following order: research design, study setting, participants, instruments, and methods of data collection, data collection procedure, ethical considerations, and analysis of data.

Research Design

The researcher used the comparative descriptive design in this study because it helped to support the description of the factors influencing the success in implementing the ten components of the Health Promoting School (HPS) as guided by the Ministry of Public Health. A comparison between the schools that passed the standard criteria for assessing the health promoting school (gold level health promoting school) and the schools that did not (comparative school) provide the background information for discussing the similarities and differences of the factors influencing the implementation of the health promoting school. The methods of data collection were in-depth interviewing, focus group discussion, observation, and documentation. An analysis of the quantitative and qualitative data collected will help to shed some light on why the implementation of HPSs has at times succeeded and at other times failed.

Study Setting

The setting of this study was at the primary schools involved in the HPS Project in Chiang Mai province in 2003. The researcher selected Chiang Mai province because it had the highest number of primary schools in northern Thailand and the researcher has been working in the Faculty of Nursing in Chiang Mai, playing a part in teaching about community health nursing and also providing school health services in schools. There were 907 schools involved in health promoting school project in 2003 (Bureau of Health Promotion, Ministry of Public Health, 2003). In the past, the primary schools were under the administration of the Office of Primary Education from each province. Currently, Thailand has adopted organizational reforms at the administrative level in education. After the proclamation of the new National Education Act B.E. 2542 (1999) and it's accompanying Amendments (Second National Education Act B.E. 2545) (2002), the authority of educational administration was decentralized and transferred to the educational service area offices in each province. The number of schools, the size of the population and the cultural background of the population were some of the conditions that determined the number of educational service areas allocated to each district (Office of the National Education Commission, 2000). Each province has an unequal number of educational service areas for taking care of the responsible districts. Chiang Mai province is divided into five educational service areas responsible for 22 districts and 2 minor districts (king amphur) (Chiang Mai Provincial Office Site, 2004). The study settings located in the five districts of Chiang Mai are the: Mae-Onn minor district, Mae Rim

district, Mae-Ai district, Sanpathong district, and Chomthong district (see map of Chiang Mai).

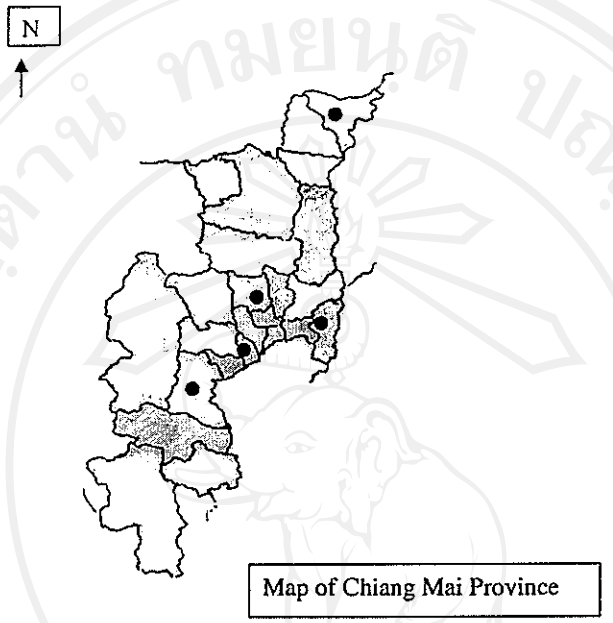

Figure 3-1. Map of Chiang Mai Province.

Selection of Settings

Settings for this study were the HPSs that passed the standard criteria for assessing HPS at the gold level and comparative schools (CSs) that did not pass the criteria based on the reports each district sent to the provincial health office in Chiang Mai in the year 2003. There were thirteen districts from five educational services area in Chiang Mai province had the schools that passed the assessment requirements to certify them as gold level health promoting schools. Using this data, the researcher used simple random sampling to select one district from each of the five educational service areas, thus five districts were selected. The researcher then used simple

random sampling to select one gold health promoting school from each district using the following criteria:

1) They were the public schools under the auspices Office of the Basic Education Commission, Chiang Mai province.

2) They were involved in the HPS project and were assessed using the standard criteria in 2003.

3) The principals or directors were willing to participate in the study.

Five gold health promoting schools were selected as the settings for this study. Lastly, by purposive sampling the researcher selected five comparative schools (schools that did not pass the standard criteria but satisfied the criteria of being a health promoting schools), located in the same district as the selected gold level health promoting schools (assessment scores shown in Appendix I). They were similar in location (rural or urban), type and student population.

Participants

Participants in this study were "stakeholders" in the HPS project. Stakeholders can be people who play a significant part in the program such as the sponsor, functionaries, decision makers, administrators, personnel, and clients (Rossi, Freeman, & Lipsey, 1999). St. Leger (2000) enlarged this list by suggesting that stakeholders in school health promotion consisted of administrators, principals, teachers, school children, parents or guardians, school personnel (food seller/cooks and janitor), community leaders, and health personnel. Therefore, in this study the participants consisted of seven groups who provided information. The participants

were administrators, teachers, school children, parents or guardians, school personnel (food seller/cooks and janitor), community leaders, and health personnel.

Selection of Participants

The participants' selection and group size.

1. Administrators: Administrator was the director or principal of a school. The administrators were selected purposively by their position in the school. There were five directors/principals in the HPSs and five directors/principals in CSs.

2. Teachers: Three teachers who were involved in the HPS comtmitee or responsible for health related projects were selected purposively. There were fifteen teachers in the HPSs and fifteen teachers in the CSs.

3. School children: There were five groups of school children participating in this study. The first group consisted of school children involved in the HPS committee or associated with health leader and were purposively selected. The other four groups consisted of school children from grades three, four, five, and six. Each group consisted of six children from the same grade who voluntarily participated in the study. There were 148 school children from the HPSs and 147 school children from the CSs.

4. Parents or guardians: Two parents or guardians of school children were selected from each school. One parent or guardian who involved in the HPS committee or basic educational institute committee was selected purposively and another parent or guardian was selected by convenience sampling. There were ten parents or guardians from the HPSs and ten parents or guardians from the CSs.

5. School personnel: School personnel consisted of food sellers, cooks and janitors in the school. One food seller or cook and one janitor were purposively selected from each school. There were ten school personnel from the HPSs and ten school personnel from the CSs.

6. Community leader: One community leader involved in the HPS committee or basic educational institute committee was selected purposively. There were five community leaders from the HPSs and five community leaders from the CSs.

7. Health personnel: A health person at the health center responsible for school health services was selected purposively. There were five health personnel from the HPSs and five health personnel from the CSs.

The total numbers of participants in this study were 395.

Instruments

Data from the ten schools were obtained by using five instruments. The instruments were a school information form, Demographic Data Form, in-depth interview guideline, focus group discussion guideline for school children, and an observation guideline for school activities and the environment. All instruments were developed by the researcher based on literature review. Details of each instrument were as follows:

1. The school information form. This form consisted of open-end statements in which to collect data from official reports and documents related to the HPS project. The data on the school information form consisted of the number of

participating teachers, personnel, and school children; the distance from school to the health center or district hospital, the people responsible for the HPS project; the dates the school was involved in HPS project; the date the school received assessment by the district committee and the ensuing results; a list of the HPS committee; a list of the school children's health problems; and a list of school projects related to health promotion.

2. The Demographic Data Form. In this form the selected participants provided demographic data that included the participants' age, gender, marital status, educational level, and religion.

3. The in-depth interview guideline. There were six in-depth interview guidelines, one for each group of participants. Each guideline composed of open-ended questions regarding general information about the school and community; the process of implementing the HPS, and the components of HPS. These included school policy, school curriculum, school and community participation in the health promotion activities, school health programs and services, and the school environment.

4. The focus group discussion for school children guideline. This guideline was composed of open-ended questions relating to the school children's understanding of the HPS, school curriculum, participation of school children in health promotion activities, school health programs and services, and the school environment.

5. Observation guideline for school activities and environment. This guideline was an open-ended statement consisting of three parts. The three parts were observation guidelines about the school environment, teaching-learning activities

related to health, and other activities related to health. The school environment included the playground, exercise equipment and place of exercise, cafeteria or canteen, drinking water and washing hands locations, toilets, recreation room, infirmary room, counseling room, cooperative shop and food shops around the school, and exhibition board in school. The teaching-learning activities included teaching-learning health subjects in each class. The other activities related to health included the activities of the nutrition project, exercise project, accident prevention project, drug addiction prevention project, and the environmental health project.

Validity of Instruments

The instruments included a general information form, guidelines for in-depth interview and a focus group discussion. These were sent to seven experts from the Ministry of Public Health and Ministry of Education to assure the content validity of the instruments before the study began.

Trustworthiness of Qualitative Data

In order to assure the credibility of qualitative data in this study, the researcher used triangulation and member checking methods.

1. Data triangulation: Polit and Hungler (1999) suggested that data triangulation consisted of time, space and person. Time triangulation refers to the data collection on the same phenomenon at different points in time. Personal triangulation refers to the data collection from different societal levels of the people. In this study, the researcher modified time, space, and person triangulation for

validating data in this study. The researcher collected data in each school at different points of time to determine the congruence of the data. The researcher collected data from similar activities in different schools to validate across the site. The researcher collected data in various groups of participants in a school to validate the data from multiple perspectives.

2. Member checking: Polit and Hungler (1999) suggested that member checking is a method to check qualitative data by the participants. In this study, the researcher presented the data to the stakeholders from each of the ten selected schools during the time period of data collection. The researcher also sent the data summarization to the teachers to receive feedback and an interpretation of the data.

Methods of Data Collection

The researcher used four methods of data collection for both the HPSs and CSs. The four methods were an in-depth interview, focus group discussion, observation, and the review of documents.

In-Depth Interview Method

The researcher used the in-depth interview method to obtain data from directors/principals, teachers, parents/guardians, school personnel, community leaders, and health personnel, a total of 50 from each school group. The interview of directors/principals and teachers lasted from one to one and a half-hours and took place in a quiet area in the school. The interview of school personnel, parents, community leaders, and health personnel, at their convenience, lasted from a half an

hour to one hour and took place in the school, home, community, or health center. The interview was conducted based on in-depth interview guidelines. All interviews were taped and transcribed verbatim. Photographs were taken during the data collection period.

Focus Group Discussion Method

Focus group discussion was a method to describe the situation to the participants so that they would understand and participate in it (Kreuger & Casey, 2000). The participants should have homogeneous characteristics and the number of participants in each group should be six to eight people (Crabtree & Miller, 1999; Kreuger & Casey, 2000). In this study, the researcher conducted five focus group discussions in each school. The first group was five to six school health leaders, and the four remaining groups were six school children from grade three to six. In this study, there were a total of 295 participants, 148 school children from the HPSs at gold level and 147 school children from CSs. The researcher herself conducted all focus group discussions by greeting the school children and introducing to them the purpose of study so as to a create relationship and encourage their participation. The focus group discussion in each school was conducted by using a focus group discussion guideline during their break or at lunchtime to avoid disturbing the learning of the children. The location for the focus group discussion was in a quiet place in the school such as, a meeting room, clerk room, classroom, canteen, or a seat under a tree. The purpose was to avoid a confounding environment which might disturb the focus group discussion and the validity of data. After this the text of the focus group discussion was transcribed for content analysis.

Observation Method

Observation is a method used when the researcher would like to understand the behaviors and experiences of people as they actually occur in a natural setting (Polit & Hungler, 1999). During the period of data collection, the researcher spent three to five days in each school and participated in school activities such as school lunch, exercise activities, religious activity, and school-family meetings. The observation was made by using observation guidelines. After receiving the permission from principals and teachers, photographs were taken to support the issues of observation.

Review of Document Method

The review of documents helped the researcher to describe the historical and contextual surroundings of the study setting. These documents included reports, minutes of meetings, announcements, formal policy statements, and letters (Marshall & Rossman, 1999). The researcher used the school information form to collect secondary data in each school by reviewing the documents related to health promotion activities and HPS project. These documents were school reports, minutes of meetings, announcements, formal policy statements, supervision's book, and the standard criteria for assessing the HPS's book. The secondary data supported the historical background and the implementation of HPS project and the results of the assessment based on the 2003 standard criteria.

Data Collection Procedure

1. The researcher traveled to all of the selected schools and introduced herself and the study to the school's director or principal. When the directors or principals informally agreed to participate in the study, formal permission was processed. The Dean of Faculty of Nursing at Chiang Mai University sent the official letters to the directors of Educational Service Area Offices in area one, two, three, four, and five, requesting permission to conduct study in their schools. Another letter was sent to the Provincial Chief Medical Officer in Chiang Mai asking permission to collect data in the health centers. A copy of the letter was sent directly to the director or principal of the schools informing them of the formal permission process. Once the formal permission was granted, the researcher contacted them by phone to schedule the data collection period and set an alternate week in the same school term.

2. On the first day during the week of data collection, the researcher met with the director or principal and explained the purpose and methods of study. The director or principal of the school introduced the researcher to all of the teachers and school children after a morning assembly. The researcher introduced herself as a doctoral nursing student who was doing a study about the HPS. Then, the researcher met the school health teacher and explained the study and plans for collecting data in school.

3. Data from in-depth interviewing and focus group discussion was transcribed verbatim. Descriptive summarization of ten selected schools and the implementation of the HPS were written and sent back to the teachers for re-checking.

Ethical Considerations

In this study, ethics was permitted by the Ethical Committee of Faculty of Nursing at Chiang Mai University before starting data collection. The researcher explained to all participants about the purpose of study, types of instruments, the benefits of the study, and the researcher's background. They were given the opportunity to participate in the study, to ask questions, and to withdraw participation at any time. In addition, the participants were reassured that data collected in this study would be used particularly for developing HPSs. Written consent forms were signed by the participants and assent forms were obtained from parents or master of the class before collecting data. Verbal consent was asked from the school children to confirm their voluntary participation in the study. Permission for tape recording and the use of photography was requested in any school where this took place.

Furthermore, the researcher informed the participants that if some questions might cause discomfort, the participants could tell the researcher to stop the tape recording. The protection of confidentiality was also taken and explained verbally to the participants and school children before collecting data. The results of the data analysis would present the whole picture of the school without mentioning the name of the participants and the schools and would not affect the working status of the teachers, school personnel, community members, and health personnel.

All of the evidence of data collection including notes, instruments for collecting data, transcribed data files, tape cassettes and photographs were kept confidentially in the researcher's place of residence until the study was completed.

After completion of the study, the written data and photographs were shredded and the tape cassettes erased.

Analysis of Data

The descriptive statistics including frequency, percentage and mean were used to analyze data from the school information form. Content analysis was used to analyze data obtained by in-depth interviewing, focus group discussion, and observation methods to compare the similarity and difference of HPSs and CSs. The steps of content analysis was modified from McCain (1988) as follows:

Identify Unit of Analysis

The researcher was interested in exploring the factors that influence the success in implementing the HPS. Therefore, the unit of analysis was word phrases or statements related to the ten components and factors of implementing the HPS. The unit of analysis consisted of the ten components of HPS which were; school policy; management in school; participation between school and community in health promotion activities; school environment; school health services; health education; nutrition and safety foods; exercise, sport and recreation; counseling and social support; health promotion for staff; and factors and problems in implementing the HPS.

Identify the Main Topic in Each Phrase

The researcher transcribed the interviews and focus group contents and extracted the significant words, phrases, and statements related to the ten components of HPS.

Develop Categories From Similar Clusters or Ideas

The researcher grouped similar clusters of ideas into category schemes.

Comparison of Categories

The researcher compared the categories to identify the similarities and differences of each component and indicated the factors influencing these elements of implementing the HPS.