Chapter 3

Methodology

3.1 Introduction

> *"It is worth remembering that there is no such thing as an ideal book for all teachers and all situations."*
> (Jordan, 2009)

It is necessary and beneficial to conduct the whole process of a curriculum in order to custom-design effective language instruction. The research used both qualitative and quantitative methods and was carried out to explore a learner-centered specialized English curriculum for Thai nurses. The curriculum follows the main procedures of designing and developing a task-based model. In this chapter, a detailed description about the context, instruments, data collection, and analysis will be discussed.

This chapter details the organization and collection of data for this study. The instruments used to collect data included needs analysis, situational analysis, curriculum design, experts' evaluations, curriculum evaluation, and pre-test/post-test. The data collected from the needs analysis and situational analysis was combined to design the curriculum, and the experts' evaluations served to improve it. The curriculum evaluation together with the performance assessments (pre- and post-test) helped the researcher to discover whether or not the curriculum was effective. After the data collection and evaluation, the results were compiled and are examined in the following chapter.

3.2 The Context

The hospital selected for this study is considered a large hospital, with 400 beds. It attends 1.000 outpatients a day and of those, it has approximately 200 inpatients per day. The number of foreign patients at this hospital is increasing and approximately 50% of the daily patients are from all over the world, for example, China, Korea, Japan, America and Europe.

3.3 Participants

The subjects of this study were eight nurses, seven female and one male, they ranged in age from 23 – 43 and volunteered to attend the course. All of the participants had studied English for more than ten years; however, only one of them has a Master in Hemodialysis. The nurses work in three different departments: one from Hemodialysis, two from Emergency, and five from OPD. Their level of English proficiency is intermediate according to the results from the performance test score (see Appendix A). They face considerable challenges to improve their English, and they struggle with lack of time as they have a busy work schedule. Many of them have families and live far from the hospital.

The course took place during a period of thirty hours, five times a week (Monday to Friday), one hour a day. The learners were separated into two groups, because half of them needed to be at work while the other half was in class.

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3.4 Research Instruments

To ensure validity and reliability of the results, data was collected from multiple sources, including Thai nurses, foreign patients, the hospital director, TESOL experts, a nursing expert, a class observer, and the teacher herself. This is known as the triangulation method, which provides different viewpoints, enabling the researcher to look at something from a variety of perspectives, for more comprehensive understanding (Wiersma & Jurs, 2009). For this study, a total of eleven instruments were used, divided into three sets, carrying out a quantitative and qualitative study.

3.4.1 Set 1

3.4.1.1 Needs Analysis Questionnaire

The needs analysis questionnaire consisted of 15 questions divided into both open-ended and multiple choice questions that elicited the respective information: learners' demography, educational background, working background and learners' needs and wants for learning English (see Appendix B). This questionnaire was analyzed by experts and piloted to ensure that the questions were measuring what they were supposed to measure, that the words were understood, and to see how long it took to complete. The people who participated in the pilot were a small cross-section of the population that was surveyed. The actual questionnaire was given to the nurses who attended the course.

3.4.1.2 Structured Interviews

Designing a curriculum requires a vast amount of information; for that reason, it was decided to supplement the observations with structured open-ended interviews on a pre-written questionnaire. According to Cooper & Shindler (2001), structured interviews permit more direct comparability of responses, while maintaining the interviewers' neutrality. The interviews were given to sixteen nurses, five outpatients, and the hospital director. Three different sources were used to gather a complete idea of what really needs to be addressed in the learner-centered English curriculum for Thai nurses.

A) Nurses' Interview

The interviews consisted of five open-ended questions. They were administered to gather more information from the nurses about their previous experiences with foreign patients and their needs and wants of learning the language (see Appendix C).

B) Patients' Interview

This tool was administered to five patients. The purpose of these interviews was to find out about the patients' previous experiences being attended by a Thai nurse, if they encountered difficulties, and what their opinions were about the nurses' English proficiency (see Appendix D). Results of these interviews supplied a better understanding about the content and kinds of activities to include in the curriculum design.

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C) Hospital Director's Interview

The interview consisted of seven open-ended questions. The researcher's intention was to collect information from the director about the services offered, the number of patients, the nurses' experiences with foreign patients, their English proficiency level, the future of the hospital, areas of English on which to focus, and his expectations about the English program (see Appendix F). The information gathered from this interview confirmed the content that should be included in the curriculum design.

3.4.1.3 Situational Analysis: Observation

Throughout the observations, the following six points were investigated: the nurses' job, the kinds of situations that occur, their use of English, the kinds of conversations they have with foreign patients, their ability to answer the patients' questions, and unusual occurrences that might be relevant or interesting to the research (see Appendix G). The purpose of these observations was to analyze the learners' real life experiences and to identify the specific English used, in order to select content, materials and activities to include in the curriculum.

3.4.2 Set 2

3.4.2.1 Curriculum Design: Protosyllabus and Lesson Plans

Supported on the information collected from the needs analysis and situational analysis, a curriculum based on the learner-centered methodology was designed. The English curriculum for nurses was intended to develop their English communication skills in the respective topics and situations: patient registration, signs and symptoms,

pain assessment, greeting the patient, directions around the hospital, medical imaging, general communication, administering medication, appointments and health education – diabetes (see Appendix H). The curriculum consisted of 21 lesson plans to be covered in 30 hours (see Appendix I). This curriculum does not employ any single teaching method; rather, it emphasizes a variety of different types of methods with the main focus of facilitating student learning process. This learner-centered English curriculum follows a task-based organizational model.

3.4.2.2 Experts' Evaluation Form

Evaluations of the protosyllabus and lesson plans were conducted by two experts, one in the TESOL field who is a native speaker and has more than 10 years of experience in teaching English and one in the nursing field who has an international PhD and many years of experience in teaching nurses. The evaluation form followed a protocol checklist which addressed the areas of preparation, building background, comprehensible input, interaction, practice/application, lesson delivery and review/assessment (see Appendix J). The reason for the evaluations was to revise and adjust the curriculum to make it more reliable. The curriculum was evaluated as *good* (Σ = 4,06), and the categories of the lessons were considered *good* and *excellent*.

3.4.2.3 Curriculum Evaluation

The process of the curriculum evaluation was based on the following five different categories: learners' evaluation questionnaire, learners' log, teacher's reflective journal and expert's observation and evaluation, and the pre-test /post-test.

A) Learners' Evaluation Questionnaire

An evaluation questionnaire was administered to gather the learners' opinions towards the lessons. The questionnaire was based on summated scale, which consisted of statements that expressed either a favorable or an unfavorable attitude toward the object of interest (Cooper & Shindler, 2006). The evaluation addressed the following features: the kinds of activities the learners preferred, the level of the activities, the usefulness of the content of the lesson, the helpfulness of activities in terms of facilitating their learning process, the quality of the materials, and additional comments from the learners (see Appendix J). The main focus on this evaluation was to bring together the learners' opinions about the course, using them as a tool to improve the curriculum.

The questionnaire was evaluated and considered reliable by two TESOL experts, and it was written in Thai in order to get more accurate data. During the course, the same questionnaire was administered at the end of each of the seven units.

B) Learners' Log

The learners were requested to keep a weekly journal, in which they reflected upon their learning process and on the lessons (see Appendix K). The purpose of these journals was to account for factors not revealed by the performance test.

C) Teacher's Reflective Journal

The teacher's reflective journal addressed seven aspects of the lessons: goals, materials, problems with the lessons, aspects that should be changed, and three questions regarding the learners: what they have learned, their responses, and the level

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of difficulty (see Appendix L). The purpose of the journal was to evaluate the curriculum and improve it.

D) Expert's Observation and Evaluation

The design of this observation form was adapted from Echevarria, Vogt, & Short (2000), relating to the evaluation of an English program, and was approved by two experts. During the third week of the course, an observation was conducted by a TESOL expert, who has had more than seven years of experience teaching English in Asia. The purpose of having the expert evaluate a lesson was to get detailed and precise evidence about the different features in a classroom throughout the lesson. The expert rated seven different features in a scale of one (lowest) to five (highest), (see Appendix M). The results were used to improve the curriculum and the instruction itself.

3.4.3 Set 3

3.4.3.1 Performance Assessment

A communicative test was carefully planned according to the results from the needs and situational analyses. The test consisted of seven main topics, relating to the seven units covered through the course (see Appendix N).

The performance assessment that was conducted before implementation of the curriculum is called the *pre-test* and was applied to the eight learners a few days before the beginning of the course. The test addressed seven topics, such as patient admission, signs and symptoms, pain assessment, greeting the patient, around the hospital, general communication, administering medication, appointments and health

education - diabetes. During the test the learners were asked to role-play (patient-nurse interaction) based on the topics cited above. The data was analyzed according to the following the rubric: comprehensibility, fluency, pronunciation and delivery, vocabulary, language control, and interaction (see Appendix O). The main purpose of the summative evaluation was to measure the learners' communicative competence by performing in the target language with a specific context. Also, with the pre-test results, the instructor was able to identify the learners' English communicative proficiency level. The results from the performance assessment conducted after the implementation of the curriculum is called the *post-test*. The data was used to measure the learners' progress in communicating in English with foreign patients. The following table shows the specifications of the performance test.

Table 1 Table of Specifications

Unit	Topic	Objectives	Skills	% of Weight	Type of test	Number of Items	Weight Score	Time mins.
1	Patient Registration Signs and Symptoms Pain Assessment	Sts will be able to ask questions and fill in the patient registration form. Sts will be able to ask questions about signs and symptoms. Sts will be able to ask questions about pain.	Listening Speaking	14.28%	Role-play	1 task	20	2
2	Greeting the Patient	Sts will be able to welcome the patient and use polite expressions.	Listening Speaking	14.28%	Role-play	1 task	20	2
3	Directions around the Hospital	Sts will be able to give directions around the hospital.	Listening Speaking	14.28%	Role-play	1task	20	2
4	General communication	Sts will be able to have a short conversation using present and past tenses.	Listening Speaking	14.28%	Role-play	1task	20	2
5	Administering Medication	Sts will be able to explain about drug interaction.	Listening Speaking	14.28%	Role-play	1 task	20	2
6	Appointments	Sts will be able to set up an appointment.	Listening Speaking	14.28%	Role-play	1task	20	2
7	Health Education	Sts will be able to give advice to the patient about diabetes care.	Listening Speaking	14.28%	Role-play	1task	20	2

Table 1 demonstrates the performance assessment test specifications. The performance assessment contained topics from each unit, based on objectives for specific tasks. The test primarily assessed listening and speaking skills. The learners were required to role-play (patient-nurse interaction) in a period of two minutes for each topic.

3.5 Data Collection

3.5.1 Phase I

3.5.1.1 Needs Analysis

A few months before the course began, a questionnaire was administered to a group of sixteen nurses from different departments. The tool was previously approved by two TESOL experts. The nurses were asked to fill out the questionnaire and returned it to the head nurse. The questionnaire was translated into Thai in order to get more accurate data from the nurses. The translation was completed by a bilingual speaker and verified by a bilingual expert. A pilot test was taken to make sure that all the questions were easy to understand. A week later, the researcher went to pick up the questionnaires, but some of the questionnaires still had not been completed, because it was during the nurses' holidays. So the researcher had to go there a few more times to collect all sixteen questionnaires. At the beginning, the head nurse organized two groups of eight nurses to attend the course. However, due to time constraints, duties and misunderstandings, the course was given to a total number of eight students (two groups of four).

3.5.1.2 Structured Interviews

A) Nurses' Interview

Along with the questionnaire, an individual interview was carried out, using five guided questions. The interviews were carried out with all sixteen nurses. To be able to accomplish that, the researcher had to go to the hospital several times because the nurses were working in different shifts or they were busy attending to patients. These interviews were conducted in English, however some of the nurses felt more

comfortable answering the questions in Thai. The interviews were recorded and lasted about ten minutes each. After collecting all the interviews, they were translated into English by a bilingual speaker.

B) Patients' Interviews

In the same way, five foreign patients were interviewed using a questionnaire consisting of six questions regarding their previous experience of being attended by a Thai nurse. The researcher went to the hospital on different occasions and days and waited until being able to ask for the patients' consent. Those interviews were not easy to do as some patients did not want to talk. This reaction was understandable, since normally people go to a hospital when they are not feeling well. Some were busy receiving treatment and follow-up procedures. For that reason, the researcher waited for the best moment to conduct each interview. Again, the interviews were recorded and each lasted for about ten minutes.

C) Hospital Director's Interview

This interview, conducted in English and based on seven open-ended questions, was arranged by the head nurse. Because of the previous interviews with the nurses and the patients, the researcher had asked the director for 5 to 10 minutes for the interview. However, when the interview started, the director got excited about the idea of a learner-centered English course for nurses, and the interview lasted for about 25 minutes.

3.5.1.3 Situational Analysis: Observations

For this feature, non-participatory observations were conducted. The tool used for these observations was based on five guided questions, and notes were kept about what the researcher felt was important and thought could be useful to construct the curriculum. To be able to conduct these observations, the researcher had to visit the hospital for about two weeks, three to four times a week. On some days, the researcher was not able to observe any hospital procedures, and for that reason the researcher had to come back on a different day. The best time to do the observations was during the morning, which is the time when most of the procedures occur. The researcher sat at the OPD and waited for a foreign patient to come. The observations were from different processes, for example, patients' registration, vital signs, administering medication, and calling the patient to see the doctor. Simple procedures, however, gave the researcher enough information about how the nurses interacted with foreign patients. Additionally, the researcher observed how the nurses dealt with Thai patients too.

3.5.2 Phase II

3.5.2.1 Curriculum Design: Protosyllabus and Lesson Plans

The information collected from the needs and situational analyses were used in designing the learner-centered English curriculum for nurses. It helped to decide what topics and materials to include that would be essential, interesting to learners, and aided both in the teaching and learning of the language. The main research was the designing of the curriculum framework. After analyzing the data of the needs analysis and the situational analysis, decisions were made about which topics,

situations, tasks, language functions, classroom dynamics, and assessment would be important to address on this curriculum.

The course commenced in March 2011, and the curriculum was designed for a thirty-hour course, including a course description, instructor expectations, grading scales, rubrics and topics. Originally the course contained eight units, but only seven were completed because some units took longer than expected.

Throughout the thirty-hour course, documentation of each class was included in the teacher's journal, addressing important features of developing a curriculum, over the thirty hours period. Each unit's lesson plan, materials, evaluation and the learners' responses to the class through questionnaires and learners' logs were collected.

3.5.2.2 Experts' Evaluation

After the protosyllabus was completed, it was evaluated by two experts, one in the TESOL department and one from the nursing field, along with the lesson plans. It took them a week to do the evaluation, and after that an appointment was set with each one in order to discuss their feedback which was given orally, together with some notes. The curriculum was revised and improved according to the comments and suggestions from the experts.

3.5.3 Phase III

3.5.3.1 The Implementation of the Curriculum

The class took place Monday to Friday, a one-hour lesson per day. There were eight nurses who attended the course. They were divided into two groups, four

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learners in the group from 2:00-3:00 p.m., and four learners in the group from 3:15-4:15 p.m. The researcher taught the thirty-hour course.

3.5.3.2 Performance Assessment Before Implementing

Two weeks before the course began, an expert of the TESOL field looked through the performance test and gave feedback about it. Together with the written feedback that he sent by email, a pilot test was conducted with two nurses who were not in the course. Each test took thirty minutes to be completed. Finally, the test was revised and improved following the experts' comments and suggestions, as well as the pilot run feedback.

At the beginning of the course, a performance assessment was administered to the entire class (8 learners). They had to role-play, interacting with a native-speaking person (who played the role of a patient) by listening to the patient and responding to her. While the learners took individual turns, the researcher was recording the role-plays, taking notes and giving directions. This test was video-taped and lasted about 15 minutes per learner

3.5.3.3 Curriculum Evaluation

A) Learners' Evaluation Questionnaire

A questionnaire was administered to the learners after the completion of each unit and was included as part of the summative and formative evaluation.

B) Learners' Log

During the implementation of the learner-centered specialized English curriculum, the learners were assigned to write journals. In the reflection process, they

described features about what they learned and which activities they preferred during the course. The journals were collected at the end of each unit and handed back to learners on the next lesson.

C) Teacher's Reflective Journal

Every day, after each class, the researcher kept a journal describing, documenting, and reflecting on the different components of the course, as part of the formative evaluation.

D) Expert's Observation and Evaluation

On the third week of the program, a TESOL expert observed and evaluated an hour lesson following the evaluation form.

3.5.3.4 Performance Assessment After Implementing

On the last day of the thirty-hour course, the same performance test was administered to the whole class. Individually, the learners had to interact with the same native-speaking person (playing the role of a patient), using all the language they had learned through the entire course.

3.6 Data Analysis

The following section presents the data analysis process. The quantitative analysis included the close-ended questions on the needs analysis questionnaire, expert's evaluation form, expert's observation form, learners' evaluation questionnaire and pre-test and post-test. The qualitative analysis includes the open-

ended questionnaires, nurses' interviews, patients' interviews, director's interview, teacher's reflective journal and learners' log.

3.6.1 Quantitative Analysis

3.6.1.1 Needs Analysis Questionnaire, Learners' Evaluation Questionnaire, and Performance Assessments

The close-ended questions included in the needs analysis and learners' evaluation questionnaires were quantifiable and were entered into a Microsoft Excel spreadsheet to determine the frequency and percentage of responses by the learners. They were analyzed using Mean and Standard Deviation (S. D.). The results of the close-ended items addressing curriculum design were then compared to the interviews with the nurses, patients, and hospital director, as well as to the observations, to determine similarities in the responses and to obtain more information for designing the curriculum.

Regarding the curriculum evaluation process, the data collected from experts' evaluation form and expert's observation form were analyzed by employing Mean and S.D. Wilcoxon test was used to compare the mean score of pre-test and post-test.

3.6.2 Qualitative Analysis

3.6.2.1 Nurses', Patients', Hospital Director's Interviews, Situational Analysis, Learners' Log and Teacher's Reflective Journal

As this is both a qualitative and quantitative study with a small number of participants, the analysis for the open-ended questionnaire interview items was completed for each individual situation by transcription of data. Content analysis was used in analyzing this data. The responses were categorized according to important

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themes. The data collected during the course, using the teacher's journal and learners' logs were categorized as positive and negative responses. The positive answers were viewed as strengths of the program, and the negatives as weaknesses of the program. The results were then used to improve the curriculum.

3.7 Validity and Reliability

The learner-centered specialized English curriculum to improve the Thai nurses' communicative skills was based on learners' needs and wants. To be able to design the curriculum, the researcher made use of a needs analysis questionnaire, interviews with the nurses, patients, and hospital director, and situational analysis. The curriculum was designed and evaluated by several experts.

First, after designing the syllabus and lesson plans, evaluations were made by two experts, one from the MA (TESOL) field and one from the nursing field. The results show that the curriculum and the lesson plans were evaluated as *good*. Finally, the teaching performance was evaluated by an observer who is from the MA (TESOL) field. The expert evaluated the lesson as *excellent*. Based on these evaluations the curriculum was considered valid and reliable.