

A DEVELOPMENT OF SELF-INSTRUCTIONAL MATERIALS (SIMS) TO
ENHANCE ENGLISH LISTENING SKILLS FOR STUDENT NURSES

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เกริก เจษฎานูวัฒน์ : การพัฒนาสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาล. (A DEVELOPMENT OF SELF-INSTRUCTIONAL MATERIALS (SIMS) TO ENHANCE ENGLISH LISTENING SKILLS FOR STUDENT NURSES) อ. ที่ปรึกษาวิทยานิพนธ์หลัก: รศ.ดร.สุมาลี ชีโนกุล. 258 หน้า.

งานวิจัยนี้มีจุดมุ่งหมายที่จะพัฒนาสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาล โดยมีวัตถุประสงค์ในการวิจัยเพื่อ 1) สำรวจความต้องการทักษะด้านการฟังภาษาอังกฤษในกลุ่มนักศึกษาพยาบาล 2) พัฒนาสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาล 3) หาประสิทธิภาพของสื่อการเรียนรู้ด้วยตนเองที่พัฒนาขึ้นตามเกณฑ์ที่กำหนดไว้ และ 4) ศึกษาความคิดเห็นของกลุ่มนักศึกษาพยาบาลที่มีต่อสื่อการเรียนรู้ด้วยตนเองที่พัฒนาขึ้น

งานวิจัยนี้ประกอบด้วย 2 ขั้นตอนหลัก คือ ขั้นตอนการพัฒนาสื่อการเรียนรู้และขั้นตอนการทดลองใช้/ประเมินคุณภาพสื่อการเรียนรู้ กลุ่มตัวอย่างในการวิจัย คือ นักศึกษาพยาบาลอาสาสมัครจำนวน 30 คนจากโรงเรียนพยาบาลรามาธิบดี คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี การทดลองและเก็บรวบรวมข้อมูลการวิจัยได้ดำเนินในภาคการศึกษาที่ 2 ปีการศึกษา 2555 เป็นเวลา 2 เดือน คือระหว่างเดือนมิถุนายนถึงเดือนสิงหาคม เครื่องมือที่ใช้ในการทดลอง ได้แก่ 1) แบบสอบถามความต้องการด้านทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาล 2) สื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาลที่ผู้วิจัยพัฒนาขึ้น(SIMS) 3) แบบทดสอบทักษะการฟังภาษาอังกฤษ และ 4) แบบสอบถามความคิดเห็นของนักศึกษาพยาบาลที่มีต่อสื่อการเรียนรู้ด้วยตนเองที่ผู้วิจัยพัฒนาขึ้น

สถิติที่ใช้วิเคราะห์ข้อมูลคือ 1) t-test แบบจับคู่เพื่อเปรียบเทียบคะแนนทักษะการฟังภาษาอังกฤษก่อนและหลังใช้สื่อการเรียนรู้ด้วยตนเองของกลุ่มตัวอย่างนักศึกษาพยาบาลและ 2) ค่าเฉลี่ยและส่วนเบี่ยงเบนมาตรฐาน เพื่อประเมินความต้องการจำเป็นของผู้เรียนและประเมินระดับความพึงพอใจของนักศึกษาพยาบาลที่มีต่อสื่อการเรียนรู้ด้วยตนเองที่พัฒนาขึ้น ผลการวิจัยพบว่า 1) ประสิทธิภาพของสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาลที่พัฒนาขึ้นมีค่าเท่ากับ $E_1/E_2 = 84.61/88.40$ (สูงกว่าเกณฑ์ที่ตั้งไว้ที่ $E_1/E_2 = 80/80$) ซึ่งถือว่ามีประสิทธิภาพดี 2) ทักษะการฟังของนักศึกษาพยาบาลหลังการใช้สื่อการเรียนรู้ด้วยตนเองสูงกว่าก่อนใช้สื่อการเรียนรู้ด้วยตนเองอย่างมีนัยสำคัญทางสถิติที่ระดับ 0.05 และ 3) นักศึกษาพยาบาลมีระดับความพึงพอใจต่อสื่อการเรียนรู้ด้วยตนเองที่ผู้วิจัยสร้างขึ้นในระดับที่ดี

งานวิจัยนี้ได้แสดงขั้นตอนเชิงทฤษฎีในการพัฒนาสื่อการเรียนการสอนด้านภาษาอังกฤษเพื่อวัตถุประสงค์และการทดสอบประสิทธิภาพในเชิงวิจัยอย่างชัดเจนสามารถใช้เป็นตัวอย่างแก่ผู้สอนและนักวิจัยในวงการศึกษาภาษาอังกฤษในเรื่องการเชื่อมโยงงานสอนและงานวิจัยเพื่อประโยชน์ในการเรียนการสอนได้

สาขาวิชาภาษาอังกฤษเป็นภาษานานาชาติ

ปีการศึกษา 2555.....

ลายมือชื่อผู้วิจัย.....

ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์หลัก.....

5287510720: MAJOR ENGLISH AS AN INTERNATIONAL LANGUAGE

KEYWORDS: ENGLISH FOR SPECIFIC PURPOSES / SELF-INSTRUCTIONAL MATERIALS / LISTENING SKILLS / STUDENT NURSES

KRERK CHETSADANUWAT: A DEVELOPMENT OF SELF-INSTRUCTIONAL MATERIALS (SIMS) TO ENHANCE ENGLISH LISTENING SKILLS FOR STUDENT NURSES. ADVISOR: ASSOC. PROF. SUMALEE CHINOKUL, PH.D., 258 pp.

The study was aimed at developing self-instructional materials for enhancing English listening skills for student nurses. The objectives of the study were as follows: 1) to investigate the needs of English listening skills of student nurses; 2) to develop self-instructional materials on English listening skills for student nurses; 3) to examine the effectiveness of the developed self-instructional materials against the set criteria; and 4) to study the attitude of the student nurses towards the developed self-instructional materials.

The study was conducted in two phases including Development of Materials and Materials Implementation/ Evaluation. Thirty samples of student nurses in this study were randomly selected on voluntary basis from School of Nursing, Faculty of Medicine, Ramathibodi Hospital. The main study was conducted for two months during June – August 2012 of academic year 2012. Instruments used in this study consisted of: 1) a questionnaire to assess the needs of English listening skills of student nurses; 2) a package of self-instructional materials (SIMS) for English listening which was developed by the researcher; 3) an English listening comprehension test; and 4) a materials evaluation form.

The statistics employed for data analysis were 1) the t-test which was used to measure the subjects' English listening skills both before and after using the developed self-instructional materials and 2) the mean and standard deviations which were used for the needs analysis and for the assessment of the students' opinions of the developed self-instructional materials. The findings revealed that 1) the developed SIMS was effective and relevant with $E_1/E_2 = 84.61/88.40$ (higher than the set criteria $E_1/E_2 = 80/80$); 2) the students' listening ability after using the developed SIMS was significantly higher than before using at the 0.05 level of significance; and 3) the student nurses' level of satisfaction with the developed materials was at a good level.

The study clearly demonstrated theoretical processes of developing and evaluating instructional materials of English for Specific Purposes and could be an example research to illustrate the mediation between language teaching and research to promote language instruction for teachers and researchers in the field.

Field of Study : English as an International Language

Academic Year: 2012

Student's Signature

Advisor's Signature

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Contents

	Page
Abstract (Thai).....	iv
Abstract (English).....	v
Acknowledgements.....	vi
Contents.....	vii
List of Tables.....	xii
List of Figures.....	xiv
 CHAPTER	
I Introduction.....	1
1.1. Background of the Study.....	1
1.2. Rationale for the Study.....	2
1.3. Research Questions.....	4
1.4. Objectives of the Study.....	4
1.5. Statements of Hypothesis.....	4
1.6. Scope of the Study.....	5
1.7. Limitations of the Study.....	5
1.8. Definition of Terms.....	7
1.9. Significance of the Study.....	9
1.10. Overview of the Thesis.....	10
 II Literature Review.....	 12
2.1. Introduction.....	12
2.2. English for Specific Purposes (ESP).....	13
2.2.1. Definitions of English for Specific Purposes.....	13
2.2.2. Classification of English for Specific Purposes.....	16
2.2.3. English for Nursing Purposes (ENP).....	20
2.3. Needs Analysis.....	21
2.3.1. Definitions of ‘needs’.....	23
2.3.2. Steps of conducting needs analysis.....	25

	Page
2.4. Instructional Materials in English Language Teaching (ELT).....	27
2.4.1. Significances of instructional materials in ELT.....	28
2.4.2. Types of instructional materials.....	28
2.4.3. Components of writing instructional materials.....	31
2.4.4. Applying Six T's Approach for writing instructional materials.....	33
2.5. Self-Instruction.....	40
2.5.1. Definitions of self-instruction.....	41
2.5.2. Self-instruction and learning theory.....	43
2.5.3. Characteristics of self-instructed learners.....	43
2.6. Importance of listening language.....	45
2.6.1. Processes of listening language.....	46
2.6.2. Factors affecting listening language.....	47
2.6.3. Benchmarks of listening in English.....	48
2.7. Synthesis of Previous Related Researches.....	51
2.8. The Present Study.....	53
III RESEARCH METHODOLOGY.....	54
3.1. Introduction.....	54
3.2. Research Design.....	54
Phase I: Development of materials.....	55
Stage 1: Needs analysis.....	56
1.1. Participants.....	56
1.2. Instruments.....	57
1.3. Data collection.....	60
1.4. Data analysis.....	61
Stage 2: Materials development.....	61
Stage 3: Verification of the developed materials.....	69
3.1. Experts' verification and evaluation of the self-instructional materials.....	69
3.2. The design of listening comprehension test.....	69
3.3. Experts' validation of listening comprehension test.....	70
3.4. The design of a materials evaluation form.....	71

	Page
3.5. Experts' validation of a materials evaluation form	71
3.6. Pilot study	72
Phase II: Materials implementation and evaluation	73
Stage 4: Implementing the materials	74
4.1. Participants	75
4.2. Instruments	76
Stage 5: Evaluating the developed self-instructional materials	77
5.1. Participants	77
5.2. Instruments	79
5.3. Data collection	79
5.4. Data analysis	81
3.3. Summary	85
IV RESEARCH FINDINGS	88
4.1. Introduction	88
4.2. Part I: Conducting needs analysis to find out the needed listening skills	89
- A questionnaire survey to find out the student nurses' needs	90
4.3. Part II: Translating needs analysis to materials development	97
4.3.1. Explore theoretical frameworks for materials development	98
- The proposed framework for materials development	99
4.3.2. Specify important findings from needs analysis	101
4.3.3. Developing self-instructional materials	102
- The framework for designing a lesson unit	102
4.3.4. Designing listening comprehension test and a materials evaluation form	104
4.3.5. The validation and evaluation of the proposed lesson unit, listening comprehension test, and a materials evaluation form by the experts	105
4.3.6. Adjusting all proposed materials	107
4.3.7. The pilot study	107
4.3.8. Readjust the listening test and the developed SIMS	111

	Page
4.4. Part III: Materials Implementation and Evaluation.....	112
4.4.1. Materials implementation	112
4.4.2. Materials evaluation.....	112
- One-on-one evaluation.....	113
- Small group evaluation.....	113
- Large group evaluation.....	114
4.5. Part IV: Attitudes of the student nurses toward the developed self- instructional materials.....	118
4.6. Summary.....	122
 V SUMMARY, DISCUSSIONS, IMPLEMENTATION, AND RECOMMENDATION.....	123
5.1. Introduction.....	123
5.2. Summary of the study.....	123
5.3. Findings	126
5.4. Discussion	129
5.5. Implications.....	133
5.6. Recommendation for further study.....	134
 REFERENCES.....	135
APPENDICES.....	145
APPENDIX A The Questionnaire Form (for the needs survey).....	146
APPENDIX B Materials Evaluation Form.....	154
APPENDIX C A sample lesson unit.....	158
APPENDIX D Listening Comprehension Test & Test Marking Guide	177
APPENDIX E Item Analysis of Listening Comprehension Test to find degree of difficulty (p) and power of discrimination (r).....	207
APPENDIX F The checklist for the experts to validate the questionnaire form	210
APPENDIX G The checklist for the experts to validate the sample lesson unit	215

	Page
APPENDIX H The experts' evaluation of the sample lesson unit.....	220
APPENDIX I The checklist for the expert to validate the listening comprehension test.....	223
APPENDIX J The experts' evaluation of the listening comprehension test.....	228
APPENDIX K The checklist for the experts to validate a materials evaluation form.....	231
APPENDIX L The experts' evaluation of a materials evaluation form	236
APPENDIX M Statistic Evaluation: paired samples t-test scores	239
APPENDIX N Letters of permission from the publishers.....	241
 BIOGRAPHY	 244

List of Tables

	Page
Table 2.1 Examples of themes	35
Table 2.2 The four basic types of texts specified in theme units	35
Table 2.3 Different sets of topics in a theme unit	36
Table 2.4 Thread that provides linkages among different themes	37
Table 2.5 Examples of Tasks	38
Table 2.6 Transition Activities	39
Table 3.1 Research Plan	55
Table 3.2 Needs of Academic Aspects of Self-Instructional Materials	62
Table 3.3 Needs of Physical Aspects of Self-Instructional Materials	63
Table 3.4 Listening texts used inside the materials	65
Table 3.5 Topics used in the materials	65
Table 3.6 Sequencing of the unit of the materials	67
Table 3.7 Transitions inside the materials	68
Table 3.8 Research Design	73
Table 3.9 Data collection process	81
Table 3.10 List of research instruments	84
Table 4.1 Demographic data of participating student nurses	90
Table 4.2 Types of materials used for practicing listening in English	91
Table 4.3 The student nurses' views on the necessity of English listening skills	92
Table 4.4 Causes of problems when listening in English	93
Table 4.5 Needs of academic and physical aspects of the self-instructional materials	94
Table 4.6 Suggestions from the student nurses for the development of the self- instructional materials	96
Table 4.7 The student nurses' evaluation of the piloted lesson unit	108
Table 4.8 Scores of end-of-unit test made by one student nurse (one-on-one evaluation)	113
Table 4.9 Scores of end-of-unit test made by ten student nurses (small group evaluation)	113

	Page
Table 4.10 Scores of end-of-unit test made by thirty student nurses (large group evaluation).....	114
Table 4.11 Effectiveness of the developed self-instructional materials among each group of participating student nurses during the implementation/ evaluation phase	115
Table 4.12 Difference of the listening comprehension test scores	116
Table 4.13 Paired samples t-test scores	116
Table 4.14 The results of the materials evaluation survey.....	119
Table 4.15 Comments and suggestions on the last day of the main study period	121
Table 5.1 The timing and the research instruments used for materials evaluation ..	125
Table 5.2 Three criteria used to evaluate the developed self-instructional materials	126
Table 5.3 The results of examining the effectiveness of the developed self- instructional materials	128

List of Figures

	Page
Figure 2.1 ESP classification by specific varieties of language use	17
Figure 2.2 ESP classification by professional area	18
Figure 2.3 ESP classification by experience	19
Figure 2.4 The Needs Analysis Cycle	22
Figure 2.5 Steps in Needs Analysis	25
Figure 3.1 Discussion of how threads were selected and adapted in the self- instructional materials	66
Figure 3.2 Discussion of how the unit was sequenced	67
Figure 4.1 Theoretical framework of the study	99
Figure 4.2 Framework for developing the self-instructional materials	100
Figure 4.3 The sequences of a unit inside the self-instructional materials	103
Figure 4.4 Adaptation of Lockwood's sequences of a unit in the developed self- instructional materials	104

CHAPTER I

INTRODUCTION

This chapter provides the background information of this present study. It is made up of nine sub-categories including the background of the study, the rationale of the study, research questions, objectives of the study, statements of hypothesis, the scope of the study, definition of terms, the significance of the study, and the overview of the thesis.

1.1. Background of the Study

English is nowadays considered one of the essential factors for many business firms due to its significance in becoming the socioeconomic medium of communication (Robinson, 1980: 98). This perception seems to agree with Flowerdew and Peacock (2001) (cited in Pattanapichet, 2009:1)'s idea of the dynamic power of this lingua franca mentioning that English holds so much importance in being of economic power and in great chances to access to the technology and expertise. Unquestionably, a good command of English will benefit those who mainly work in the business in which English is a medium of communication.

Nation and Newton (2009) remarked that though perceived as a hidden process, listening also plays a critical role when making the speech communication. Lynch (2009: 3-4) further suggests that listening comprehension is the first goal that needs to be reached although a variety of factors and problems such as the speed of speaking, use of unfamiliar idioms or expressions would make it difficult to understand the language.

However, chances for listening to authentic English resources in everyday life for non-native speakers like Thai students are quite low unless they meet foreigners, watch satellite television, or listen to English broadcasting radio (Burton, 1997: 330-332). Many schools and colleges, therefore, may give their students chances to practice listening skills themselves with commercially published English listening materials available where contents or activities, details of culture, and tradition presented inside might be irrelevant or not meet students' actual needs (Tomlinson, 2003:50).

Garder & Miller (1999: 96-122) , on the other hand, note that self-instructional materials, which are specially produced according to the needs of students, may enable students to move further towards the goal of learning with more responsibilities and help nourish the habit of learning outside the traditional classroom. Tomlinson (1998) also believes in the dynamic power of the specially produced materials by suggesting that an emotional engagement with those materials will create an emotional response among students and motivate them to use the materials. Therefore, specially produced self-instructional materials that suit the learning needs and the background knowledge of students will definitely increase their learning interests and awareness of learning objectives.

1.2. Rationale for the Study

Since Thailand opened its markets to the outside world, the demand for proficiency in English among workers is increasing. According to Thailand's Ministry of Public Health, hospitals in Thailand were estimated to earn 19.826 billion in Thai baht from 730,000 foreign patients in 2003 (Harryono et al., 2006). Many nursing colleges, therefore, may accordingly provide English for Specific Purposes courses

(ESP) such as English for Medical Professionals, English for Nursing Communication, Reading and Writing for Medical Purposes for their student nurses to prepare them to tackle the situation where English becomes a medium of communication (Lewis & Hill, 1999).

In the context of educational settings, however, listening courses may be relegated to a hasty topic-driven session wedged between reading and writing because they are regarded as more manageable skills (Field, 2008:1). Encouraging students to learn by themselves outside a normal classroom can lessen this problematic situation. Self-instructional materials based on an analysis of needs of students can be an effective solution for students who have special needs. Self- instructional materials may bridge the gap between teachers' needs and the actual needs of students and enable them to feel a greater commitment to move further towards their expected goals of language learning (Gardner & Miller, 1999: 105-108; Dickinson, 1994: 68-87).

According to the discussion that the researcher made with student nurses from several nursing colleges in Bangkok, some published English listening materials included in their language courses contain irrelevant contents and activities to the students' real needs despite the production of in-house materials. This situation has motivated the researcher to develop the package of self-instructional materials (SIMS) to enhance listening skills for student nurses based on their needs and evaluate its effectiveness against the criteria. The researcher hopes that upon the completion of the development of self-instructional materials, student nurses would be able to demonstrate a higher level of listening skills in English and be more interested in seeking more knowledge autonomously in the outside world.

1.3. Research Questions

The questions for this study are as follows:

1. What are the needs of English listening skills for student nurses?
2. How can self-instructional materials to enhance English listening skills for student nurses be developed?
3. How effective are the developed self-instructional materials?
4. What is the attitude of student nurses towards the developed self-instructional materials?

1.4. Objectives of the Study

The objectives of this study are to

1. Investigate the needs of English listening skills of student nurses.
2. Develop self-instructional materials on English listening skills for student nurses.
3. Examine the effectiveness of the developed self-instructional materials.
4. Study the attitude of the student nurses towards the developed self-instructional materials.

1.5. Statements of Hypothesis

To examine the effectiveness of the self-instructional materials (SIMS) to enhance listening skills for student nurses, the following hypotheses have been formulated:

1. The developed self-instructional materials are at a standard criteria of efficiency at $E_1/E_2 = 80:80$.

2. The English posttest scores are significantly higher than the pretest score.
($p \leq 0.05$)
3. The student nurses have a positive attitude towards the developed self-instructional materials.

1. 6. Scope of the Study

Participants and variables in the study are as follows:

1. Participants

- The population of the study is 300 student nurses ranging from the first year to the fourth year in School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok.
- Participants of the study consist of 30 student nurses ranging from the first year to the fourth year from the School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok.

2. The variables of the study are as follows:

The independent variable is self-studying with the developed SIMS

The dependent variables are the level of effectiveness of the developed SIMS and the attitude of the participating group of student nurses towards the developed SIMS.

1.7. Limitations of the Study

Due to the nature of self-instruction that may affect the results of the study, some limitations should be acknowledged as follows:

1. The study deals with the self-instruction. In this case, the top concern of this self-instruction is on encouraging student nurses to see their learning progress of

English listening skills after using the developed self-instructional materials instead of making a very high score in the pre-or posttest.

2. The self-instructional materials were developed from needs analysis of 300 student nurses of School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok, not from the needs the stakeholders namely teachers or administrators. Therefore, the score interpretation of the needs was solely based on these 300 participants and may not be representative of the population of student nurses in Thailand.

3. During the main study (the implementation/ evaluation phase), 30 voluntary student nurses were recruited for being the study group. The majority of these voluntary student nurses were fourth year student. As being voluntary, these 30 student nurses may share similar characteristics in terms of being industrious and studious. Besides, they were allowed to choose the unit to study, do the activities that they were interested in, and study with their own learning styles and at their own paces.

4. The process of administering both pre-and posttest in this study was not systemized in the way that the study group of 30 voluntary student nurses was not tested in one testing room. Instead, they were allowed to do both tests in their own rooms within the limited time, without the monitoring of the researcher, and were asked to report their test scores via Facebook to serve the nature of self-study. Therefore, this might affect test reliability.

1.8. Definition of Terms

The key terms used in the study are as follows.

1. Needs

“Needs” are gaps between what someone knows and what someone needs or wants to know and those gaps exist because of the lack of knowledge, attitudes, and skills (Kitchie, 2008: 97). “Needs” in this study refers to the students’ demands for skills of listening in English to comprehend any English spoken forms of information and initiate the specification of self-instructional materials that student nurses would like to have. The data of needs are collected via needs analysis.

2. Needs Analysis or Needs Assessment

Needs analysis is “the process of determining the needs of which a learner or a group of learners requires a language and arranging the needs according to priorities” (Richards et al., 1992: 242-243). In this study, the analysis of student nurses’ needs involves the necessities of English listening skills, which student nurses feel they lack and want to practice their English listening and self-instructional materials based on course objectives and findings from document research. The analysis of student nurses’ needs in terms of lacks and wants/expectations come from the questionnaire. The information obtained will be used as the basis for designing the specifications of the self-instructional materials.

3. Self-Instructional Materials

“Self-instructional materials” are materials for self-studying in which individuals’ preferences of learning styles, contents, and other relevant aspects can be acquired by themselves and at their own paces (Detaramani, 1999: 124-125). Self-instruction materials in this study are a package of handbook with CD whose contents

are designed and developed based on the exact needs of the student nurses. The self-instructional materials contain five units where activities and exercises are applied to let the student nurses learn by themselves. The self-instructional materials are developed based on Six T's approach of Stoller and Grabe (1997) and the approach of writing instructional materials of Nunan (1995) and Tomlinson (2003).

4. English listening skills

English listening skills are skills of receiving information on vocabulary, grammar, pronunciation, and spoken word order in either forms of words, phrases, or sentences and retaining or registering them during the communication (Nunan and Miller, 2002: 5).

English Language Development Center (ELDC) in Thailand and the Canadian English Language Benchmarks Assessment for Nurses (CELBAN) all witness its importance by proposing their own benchmarks of necessary English listening skills for nurses who wish to successfully work in any English speaking workplaces and some of their common skills are noticeable. In this study, therefore, English listening skills are summarized from those common skills and relate to the followings:

- recognize vocabulary related to the health science;
- retain chunks of language in short-term memory;
- recognize reduced forms of words e.g. *I'll, I'm gonna*;
- recognize typical word-order patterns e.g. *..., aren't I? , ..., isn't it?*;
- recognize stress and rhythm patterns, tone patterns, or intonation contours;
- detect key words such as those identifying topics and main ideas;
- guess meaning from context;
- understand inferred information e.g. speaker's attitude or intention;

- recognize basic syntactic patterns; and
- detect sentence constituents such as subject, verb, object, and prepositions.

All skills mentioned above are measured by the listening comprehension test before and after using the developed self-instructional materials.

5. Student nurses

Student nurses are nurses in training who are undergoing a trial period of offering both physical and psychological support to the patients (Sapountzi-Krepia, 2007: 1-2). Student nurses in this study are 300 student nurses studying during the first year to the fourth year in academic year 2011 of School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok.

1.9. Significance of the Study

Academic knowledge in teaching and learning English particularly in the area of English for Specific Purposes (ESP) is enhanced by the present study in three aspects as follows:

Theoretically, the study can reflect some theoretical aspects of ESP, which provides some insights and contributes knowledge concerning communication skills for specific occupation and the materials development that are suitable in particular aspect in the field of ESP especially for the Nursing Purposes since most of the previous studies in English for Specific Purposes are still focusing on English for Academic Purposes (EAP) rather than English for Occupational Purposes (EOP) (Supatakulrat and Wasanasomsithi, 2005:21) (cited in Vasavakul, 2006:8).

Pedagogically, the findings of the study can provide insights into the process of the development of self-instructional materials specifically for the student nurses

which cover an aspect of an ESP material design i.e. from needs analysis to material development and evaluation of its effectiveness after implementation.

Practically, this study attempts to link the knowledge of research and application in an applied context. It demonstrates the concept of putting theory into practice. The usefulness of the materials designed and developed in the study are ready-made materials that can be adapted and applied by researchers or teachers whose interests are in the same field.

1.10. Overview of the Thesis

The thesis consists of five main chapters as follows:

Chapter I describes the background of the present study regarding the need of a particular listening modality for student nurses. To fill such a gap, a development of self-instructional materials (SIMS) to enhance listening skills for student nurses has been proposed in which the needs analysis is the first requirement for such development.

Chapter II reviews the underlying principles and concepts that are considered relevant and necessary for the development of the proposed self-instructional materials. Such concepts are definitions and types of English for Specific Purposes (ESP), ESP materials development, needs analysis, and significance of English listening for nurses.

Chapter III covers the research methodology of the study. This includes the research design, research instruments, methods of data collection, and data analysis.

Chapter IV presents the results and findings from the study. Information from the needs analysis to the materials development and materials implementation has been demonstrated.

Chapter V summarizes the study, discusses the findings, and suggests recommendations for further study.

CHAPTER II

LITERATURE REVIEW

2.1. Introduction

This chapter presents the reviews of the principles and concepts that are relevant and necessary for the development of self-instructional materials (SIMS) to enhance English listening skills for student nurses. The review covers English for Specific Purposes and frameworks of materials development including ESP material design and needs analysis provide an overall understanding and a foundation for developing ESP materials. Next, the Six T's approach of Stoller and Grabe (1997) gives an idea of how materials should be designed. Later, English for nurses and communicative skills of English in which skills of listening for nurses suggested by English Language Development Center (ELDC) and Canadian English Language Benchmarks Assessment for Nurses (CELBAN) are raised to acknowledge some general strands of English listening for such specific group of students. Finally, theories on materials design along with an approach of writing instructional modules are presented to provide important information for developing self-instructional materials to enhance English listening skills for student nurses.

In short, each of these concepts is explored and reviewed to conceptualize a framework suitable for developing self-instructional materials.

2.2. English for Specific Purposes (ESP)

The economic power gained by the United States after the scientific and technical revolution following World War II along with the oil crisis during 1970s has resulted in the flow of Western knowledge and financial supports into the oil-rich countries where the primary medium of communication is English. This situation reflected a great demand to know English among non-native speakers; not only basic English but more specific English for specific reasons when working (Hutchinson and Waters, 2002: 6-7; Richards, 2001: 23).

Consequently, the new group of learners, who have clear and specific reasons for learning English such as for trades and technology, need “training” English for their occupation rather than learning English for the sake of learning a language alone (Richards, 2001).

2.2.1. Definitions of English for Specific Purposes

Scholars have proposed definitions of ESP in various styles due to the lack of the clear-cut definition that can characterize all contexts of ESP (Sinha and Sadora, 1991: 20). Among those definitions, however, two distinctive aspects i.e. learners’ needs with specific purposes are still observed.

The earliest definition of ESP would be the definition proposed in the book titled *Communicative syllabus design* by John Munby in 1978 (Vasavakul, 2006:11). For Munby, ESP course is “those where the syllabi and materials are determined in all essentials by the prior analysis of communication needs of the learner, rather than by non learner-centered criteria such as the teacher’s or institution’s predetermined preference for General English as part of a general education.” The key terms in his definition are ‘communication needs’ and ‘learner’.

Later, Strevens (1988) (cited in Pattanapichet, 2009:16) presents absolute and variable characteristics of ESP to give a more specific definition by making a distinction between four absolute and two variable characteristics of ESP.

Four Absolute Characteristics are as follows:

1. ESP is designed to meet specific needs of the learner;
2. ESP is related in content to particular disciplines, occupations and activities;
3. ESP is centered on the language appropriate to those activities in syntax, lexis, discourse, semantics, and analysis of this discourse; and
4. ESP is in contrast with General English.

Two Variable Characteristics are as follows:

1. ESP may be restricted as to the language skills to be learned, and
2. ESP may not be taught according to any pre-ordained methodology.

An ESP course for Strevens (1988) is “those in which the aims and the contents are determined, principally or wholly, not by the criteria of general education as when English as a foreign language is a subject in school but rather by functional and practical English language requirements of the learners. English courses for medical doctors, for meteorologists, for secretaries, for businessmen, for diplomats, for welders, for air traffic controllers, for teachers or teacher trainers, and many more are examples of ESP” Key terms here are ‘functional and practical English language requirements’ and ‘learners’ (Vasavakul, 2006).

Dudley-Evans and St John (1998: 17) further propose the relation of content in the second absolute characteristics from the work of Strevens (1988)

mentioning that such absolute characteristics can lead to a misunderstanding that ESP is always and necessarily related directly to subject content. For them, ESP teaching should always reflect the underlying concepts and activities of the broad discipline instead of being related to the whole content. Therefore, a modified definition has been presented as follows:

Three Absolute Characteristics are

1. ESP is defined to meet specific needs of the learner;
2. ESP makes use of the underlying methodology and activities of the disciplines it serves; and
3. ESP is centered on the language (grammar, lexis, and register), skills, discourses and genres appropriate to these activities.

Four Variable Characteristics are

1. ESP may be related to or designed for specific disciplines;
2. ESP may use, in specific teaching situations, a different methodology from that of general English;
3. ESP is likely to be designed for adult learners, either at a tertiary level institution or in a professional work situation. It could, however, be used for learners at the secondary school level; and
4. ESP is generally designed for intermediate or advanced students.

Most ESP courses assume some basic knowledge of the language system, but it can be used with beginners.

Basturkmen (2003: 48) briefly discusses that ESP courses are formulated on the basis of specific work-related or academic needs of the learners and

the course offers descriptions of language use in the disciplines or occupations they serve.

Another characteristic of ESP course is time constraints. Limited duration tend to be one of the factors in designing an ESP course. Unlike general English courses whose aim is to develop proficiency of general English skills which naturally require an extensive amount of time to pursuit, ESP courses intensive courses holding a specific length of time with clear and specific objectives to be achieved. Learners are, consequently, expectantly aimed to be able to achieve their target skills in order to perform a professional or an academic role after the courses have been completed. Therefore, time cannot be wasted for any irrelevant materials in designing any ESP courses (Strevens, 1988).

2.2.2. Classifications of English for Specific Purposes

As contents and aims of any course are determined by the needs of a specific group of learners, English for Specific Purposes (ESP) has been referred to ‘applied ELT’. ESP is often alienated into English for Academic Purposes (EAP) and English for Occupational Purposes (EOP) whose sub-divisions are sometimes made into business English or professional English such as English for doctors, English for lawyers and vocational English such as English for tourism, nursing, and aviation.

However, key features of ESP are how spoken and written texts work within particular disciplines of professions and how they attempt to persuade the audiences of the validity of their claims and arguments (Dudley-Evans and St John, 1998).

Hutchinson and Waters (2002) present an ESP classification in a picturesque tree diagram by the nature of specific varieties of language use as illustrated in Figure 2.1.

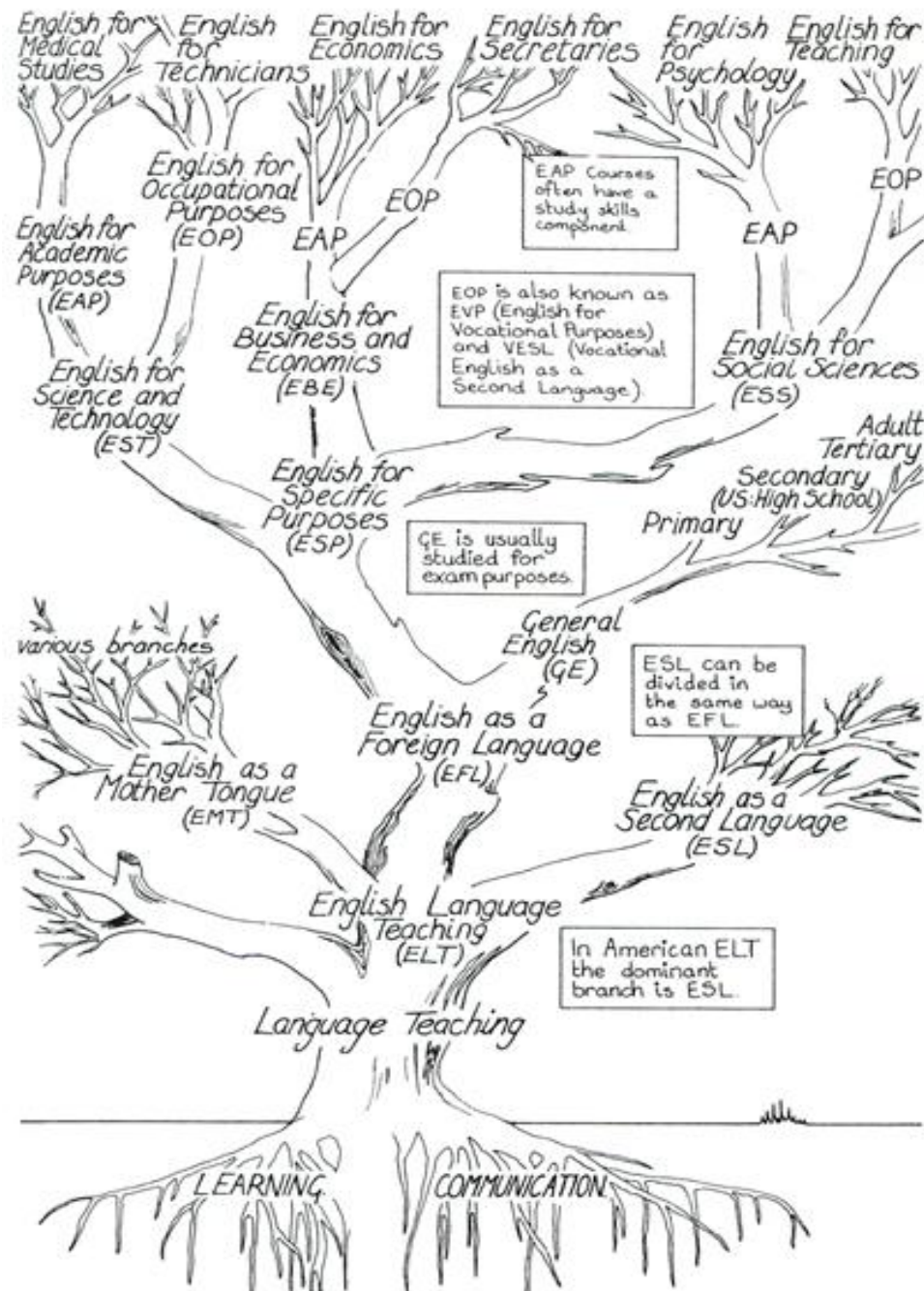


Figure 2.1: ESP classification by specific varieties of language use (Hutchinson and Waters, 2002)

While the above diagram classifies English language teaching (ELT) into various subcategories according to specific varieties of language use, Dudley-Evans and St John (1998), on the other hand, offer an ESP classification by professional area as illustrated in Figure 2.2.

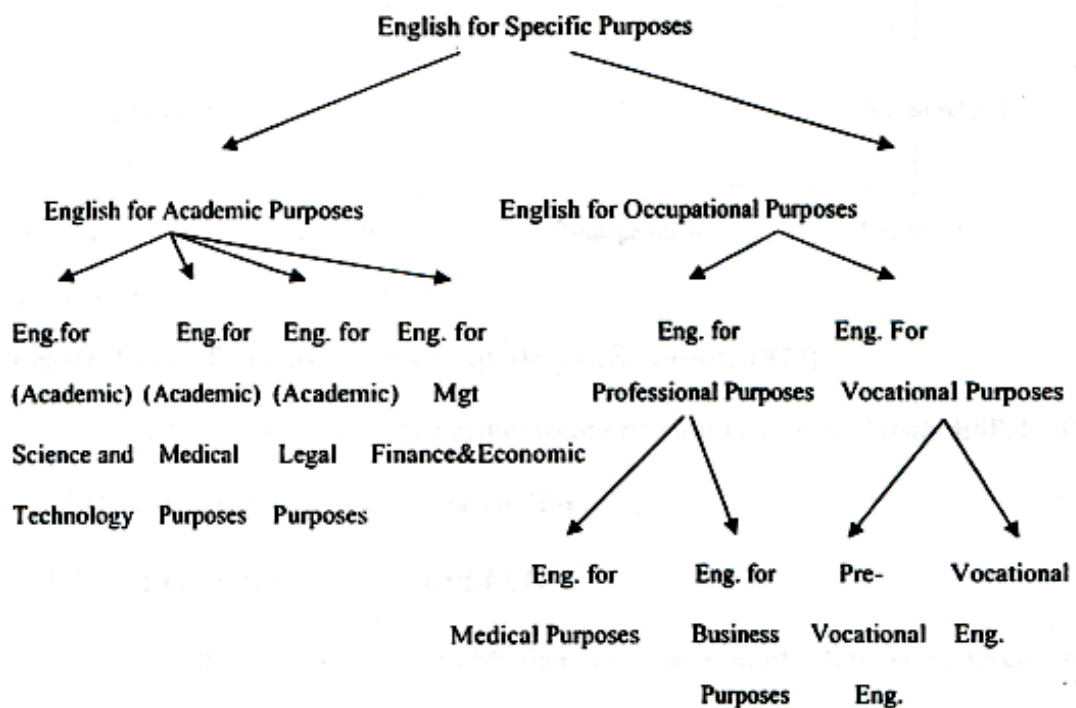


Figure 2.2: ESP classification by professional area (Dudley-Evans and St John, 1998)

As the above diagram sub-divides EAP and EOP according to the disciplines or occupations with which it is concerned, Strevens (1977) (cited in Pattanapichet, 2009: 22) offers an ESP classification by experience as in Figure 2.3.

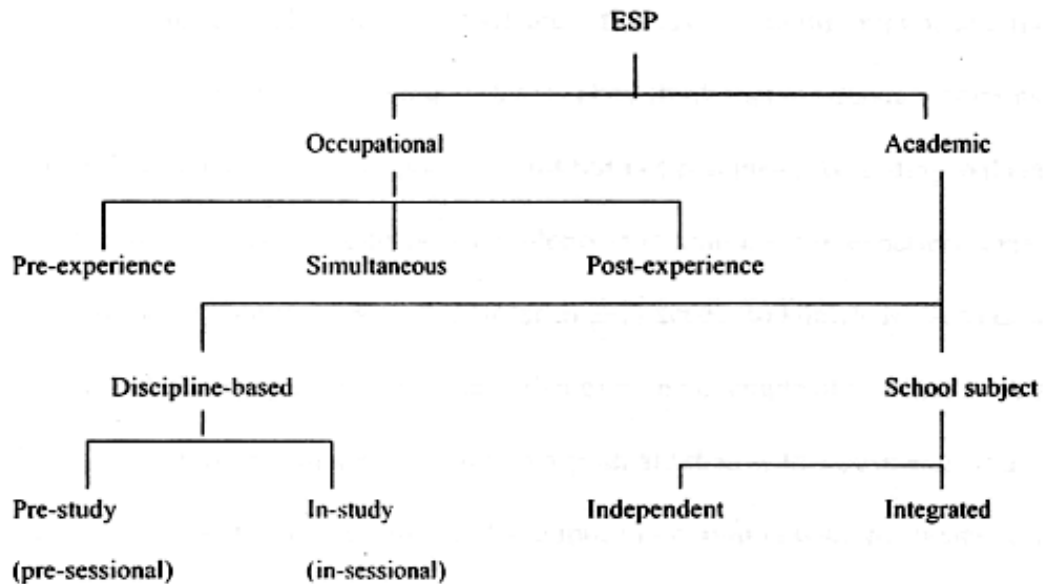


Figure 2.3: ESP classification by experience (Strevens, 1977)

Given the diagram of Strevens (1977) to be an example, Kennedy and Bolitho (1985) (cited in Pattanapichet, 2009:23) discuss that both EAP and EOP serve the students' needs of pre-experience and pre-study in order to gain access to knowledge or to express in English.

Similarly, Hutchinson and Waters (1987) mention that at the end of both EAP and EOP there is a similarity between them which is about an employment. They explain that learning and working can be adopted simultaneously and the language learnt in academic settings for academic purposes can be useful and employed by learners in the occupational settings when they are taking up the job.

Therefore, no matter what criteria are used to classify ESP, EAP and EOP are still placed as the two main strands of ESP.

2.2.3. English for Nursing Purposes (ENP)

English for medical or nursing purposes (EMP/ENP) are subsets of English for Specific Purposes (ESP) that most often focus on teaching aspects of medical English especially the terminology (Hull, 2006). This type of English involves the teaching and learning of English for a practical purpose including work performance or effective medical training. Dudley-Evans and St John (1998) characterize ESP for the medical profession as follows:

1. It is designed to meet English language needs of nurses, doctors, dentists;
2. It includes themes and topics needed in the medical field; and
3. It focuses on skills required by medical learners e.g. for writing medical papers or preparing a talk for a medical meeting

It seems that health professions have their own language, content, and culture. Career-specific language is evident in the communication health professionals use in both verbal and non-verbal form. English for nursing purposes (ENP), therefore, is essentially a matter of English for nursing areas whose specialization is defined as necessary language to cope with nursing and relevant medical works (Hainsworth, 2008: 470).

The English language that suits the needs of nurses, hence, should prepare student nurses for the job with terminology and medical abbreviations for their daily career tasks (Lee, 1997: 55-72). Therefore, ESP practitioners especially those who are in charge of English for nursing purposes need to provide English courses as well as materials that suit the real needs of student nurses as they are

essential means to enhance the possibility of communicating in English among this group of students.

2.3. Needs Analysis

As ESP and General English is neither the existence of a need or the nature of the need that able to distinguish ESP from General English, an awareness of the need is of paramount importance and an effective ESP course hinges on specified needs of learners (Hutchinson & Waters, 1987; Sinha & Sadorra, 1991). Needs analysis or needs assessment is , therefore, an essential process in a development of ESP courses.

Hutchinson and Waters (1987) view learners' needs as a fundamental approach for ESP practitioners to be aware of language learning. As many ESP courses tend to serve the education needs of adult learners whose language needs, readiness of learning language, and learning styles for processing information vary in ages, it is extremely challenging for the course developers to tailor a well designed course for such versatile atmosphere.

With the diversity of needs, needs analysis will bridge the gap between what is expected and what is offered. The concept of needs analysis is essential for education because optimal learning approaches and activities will support and assist the learners when learning needs, readiness to learn, and learning styles among learners are insightfully understood (Kitchie, 2008: 94-104).

Jialim (2006) (cited in Sirilukkananan, 2007) surveys the needs, problems, and wants of English for specific purposes perceived by student nurses of Saint Louis College in Bangkok and finds the results that seem to be as Chaikitkosi (1986) (cited in Phutirat and Suwannapatama, 2007) has claimed before that contents of the English for specific courses should be considered from the most needed or the greatest wants

among ‘local’ nurses in a particular setting. Needs analysis, therefore, should be primarily concerned within the context of ESP course as this approach will facilitate the determination of what exactly needs to be learned and which way of information can be best presented and understood by learners in such various contextual situations (Kitchie, 2008).

Graves (2000) presents the process of needs analysis and comes up with a set of decision, actions, and reflections, which is cyclical in nature as follows:

1. Deciding what information to gather and why;
2. Deciding the best way to gather such information: when, how, and from whom;
3. Gathering the information;
4. Interpreting the information;
5. Acting on the information interpreted;
6. Evaluating the effect and effectiveness of the action; and
7. (Back to 1) deciding on further or new information to gather.

These cyclical processes were illustrated in Figure 2.4.

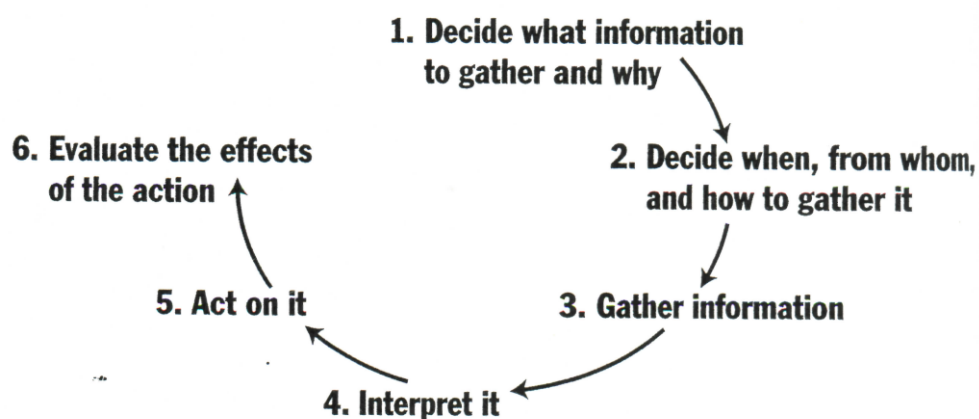


Figure 2.4: The Needs Analysis Cycle (Graves, 2000)

2.3.1. Definitions of Needs

In nursing education, according to Healthcare Education Association (1985) (cited in Kitchie, 2008:97) needs are defined as knowledge gaps that exist between a desired level of performance and the actual level of performance. Needs in learning, hence, are the gap between what someone knows and what someone needs or wants to know and such gap will exist because of the lack of knowledge, attitude, or skill. According to Dudley –Evans and St John (1998), needs analysis in ESP can be determined as follows:

1. Target situation analysis/Objective needs: Professional information about the learners; tasks and activities learners will be using English.
2. Wants or Subjective needs: Personal information about the learners: factors which may affect the way they learn such as previous learning experiences, cultural information, reasons for attending the course and expectations of it, attitude toward English language.
3. Present situation analysis: English language information about learners: their current skills and language use.
4. Lacks: The learners' lacks: the gap between 1) and 3).
5. Learning needs: Language learning information: effective ways of learning the skills and language in 4).
6. Linguistic analysis/ discourse analysis/ genre analysis: Professional communication information about knowledge of how language and skills are used in the target situation.
7. Expectation: What is wanted from the course?

8. Mean analysis: Information about the environment in which the course will be run.

However, Hutchinson and Waters (1987:55) mention target needs as the essential factor that hide many vital distinctions i.e. necessities, lacks, and wants. Graves (2000), likewise, adds some critical considerations about information that need to be gathered when assessing needs for a language course for students as follows:

1. Who the learners are? Aspects that are covered for this question include age, gender, education background, profession, nationality, language spoken.

2. The students' language proficiency. The level of proficiency in each of the four skills in the target language. This information can help choose texts to be used, skills to be developed, elements of grammar to emphasize, and so on.

3. Materials to use, and the sociolinguistic and socio-cultural skills to develop and emphasize.

4. The learners' interests. Such interests include topics or issues they are interested in. This kind of information can help teachers gear the course towards students' interests and experiences.

5. The students' learning preferences. This kind of information includes the expectation of the content, activities, roles of teacher-student, teaching approach, and so on.

6. The students' attitude. What are their attitudes toward themselves, the target language, and culture? The findings from this question will help teachers know whether the students feel confident using the target language and comfortable when making mistakes or positive about studying in the classroom.

2.3.2. Steps of Conducting Needs Analysis

According to Bloor (1985) (cited in Udomsieng, 2005: 14-15), it is almost certainly desirable to operate both target-centered and learner-centered needs analysis in order to specify an adequate teaching syllabus.

Target-centered needs analysis looks at students' future roles and attempts to specify language skills or linguistic knowledge that students need to perform whereas the learner-centered needs analysis examines what the students can do at the beginning of the course, problems they may have, and skills they possess which will enable them to learn well in certain directions.

Therefore, needs analysis is the classical procedure by which a close link can be established between students and curricula; the syllabus and materials design for any course (Yalden, 1991). Jordan (1997) proposes the steps for conducting needs analysis as illustrated in Figure 2.13.

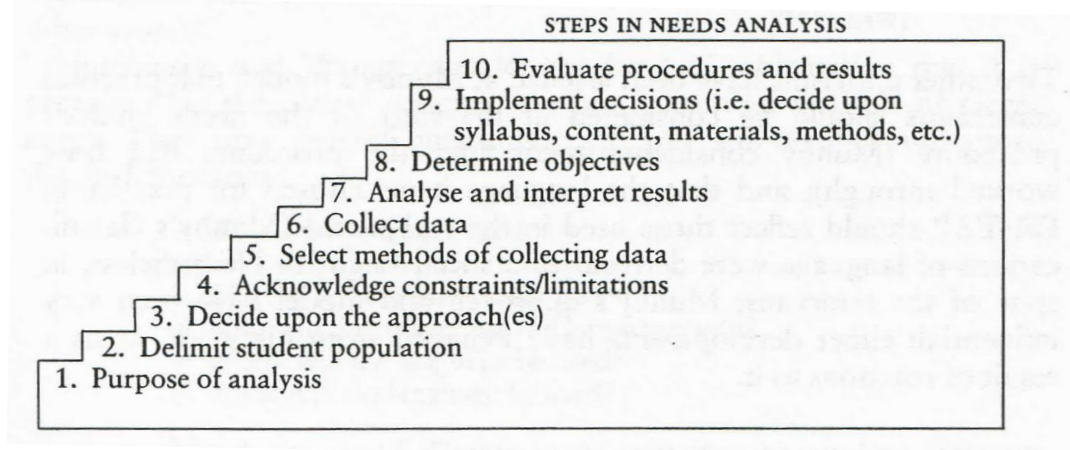


Figure 2.5: Steps in Needs Analysis (Jordan, 1997)

Each step in needs analysis for the present study may be described based on Figure 2.5 as follows:

1. Purpose of analysis: the present study aims to investigate the needs of English listening skills among student nurses in School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok.

2. Delimit student population: the delimitation or scope of the study covered 300 student nurses ranging from the first year to the fourth years from School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok.

3. Decide upon the approach: the present study focuses on the 'participants' necessities'. According to Hutchinson and Waters (1987:53), necessities mean 'what the learner has to know in order to function effectively in the target situation.' Thus, in this present study such necessities is English listening skills that student nurses fell lack and need to get improved in order to communicate effectively.

4. Acknowledge constraints/limitations: there are many schools of nursing in Thailand that release the group of work forces to the country, however, as one of the most popular schools of nursing in the country, student nurses from School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok was the focused group of the present study.

5. Select method of collecting data: for gaining data quantitatively, the questionnaire was applied in the study.

6. Collect data: information from questionnaires was collected from 300 student nurses studying between the first year to the fourth year in School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok

7. Analyze and interpret data: for descriptive statistics (frequency and mean) was used to analyzed data gathered from the questionnaire.

8. Determine objectives: the objectives of the SIMS developed was established based on the literature reviews and the questionnaire.

9. Implement decisions: the SIMS was designed based on information from the literature reviews and the needs analysis.

10. Evaluate the SIMS: this Self-Instructional Materials was validated by experts and the pilot test. The main study was then conducted and evaluated using the pretest and posttest and the materials evaluation form.

Apart from attempting all steps in needs analysis to develop self-instructional material in English for a particular group of students, the review of relevant information about instructional materials in language teaching/learning will also shape the pathway to design appropriate materials for such group of students.

2.4. Instructional Materials in English Language Teaching (ELT)

Instructional materials provide teachers with tools to deliver message creatively, clearly, accurately, and in a timely fashion (Hainsworth, 2008:474). These ‘tools’ enhance possibilities for teacher to reinforce information, clarify abstract concepts, and simplify complex messages.

Teaching languages contains tons of contents and approaches to be adopted for students who carry different level of readiness to learn and various learning styles. Choices and media options of instructional materials often depend on availability or cost regarding appropriateness to fit the learner, affect the motivation to learn, and that accomplish the learning tasks. Simply put, whichever tools are selected should enhance achievement of expected learning outcomes.

2.4.1. Significances of Instructional Materials in ELT

Instructional materials play a crucial role in learning not only languages but also other fields of knowledge such as being mediums of communicating knowledge and learning objectives of a particular session among learners and teachers. Either form of instructional materials e.g. audiovisual materials, direct or purposeful experiences and learning resources can lessen problems in conducting the session and enhance the possibility of crystal clear learning among learners. (De Kieffer, 1965:9-64; Dale, 1969: 105-135; Ely, 1972: 36-43) (cited in Malithong, 2548: 100-108).

Instructional materials are the vehicles by which information is communicated either print or non-print media, accompanied by the adjuncts used of relevant hardware and software to deliver information. The so called ‘tools’ are intended to supplement not to replace the role of teachers. Therefore, it is imperative that the teachers understand the various types of audio and visual media available to efficiently and effectively complement their teaching efforts.

2.4.2. Types of Instructional Materials

According to Tomlinson (2003), materials include anything which can be used to facilitate the learning of a language. They can be linguistic, visual, auditory or kinesthetic and they can be presented in print, through live performance or display, or on cassette, CD-ROM, DVD, or the internet. None the less, many well known publishers might be generally less enthusiastic about publishing materials that attract small groups of those who are interested. So, when materials are needed for such situations, many educational settings will need to develop their own materials. Such materials can be explained as follows:

1. Materials prepared by the foreign language department of a corporation for use by its employers.

2. Materials prepared by a language school or university or college language department for use by its students.

3. Materials prepared by an individual teacher for use by particular group of students in her or his class.

Hainsworth (2008) categorizes types of instructional materials into three groups; written materials, demonstration materials, and audiovisual materials. Reviewing those three categories of instructional materials, she finally suggests how to select media from a range of possible options based on their advantages and disadvantages.

For Hainsworth (2008), printed media or written materials include both commercially prepared and instructor-composed materials e.g. books, commercial textbooks, brochures, instruction sheets. The problem of matching literacy and cognitive levels of learners to printed instructional tools is a relevant concern. The major advantages of printed materials are that they are widely available and they have potential for reinforcing explanations of complex concepts. Disadvantages include the limited opportunity for learner-teacher feedback as some learners may find irrelevant and unreadable to be utilized in classroom. Therefore, in using such materials, teachers may select the useful information and develop printed materials themselves in order to enhance the possible chance to receive the utmost language and information.

Demonstration materials, on the other hand, include non-print media such as models, real equipment, diagram, charts, flip charts, posters, photographs, and

etc. In particular, they stimulate the senses of sight and touch. They are especially useful for cognitive and psychomotor skill development and may even influence attitudes, feelings, and values in the affective domain. Other advantages include bringing the learner closer to reality through active involvement and the opportunity for repetition. The major advantage of demonstration materials is the potential for static content or overuse, as they are often time consuming to prepare and the teacher may be reluctant or unable to revise these materials frequently. In addition, these materials are not suitable for simultaneous viewing by large audiences, for visually impaired learners, or for individuals with poor abstraction abilities.

Audiovisual materials include computer, specifically CAI, video games, MP3s, and many other electronic devices integral to our everyday life. Their ability to stimulate learners' visual and auditory sense enhances their power to actively engage learners and to potentially increase retention of information. Many audiovisual materials can influence all three domains of learning by promoting cognitive development; stimulate attitude change, and helping to build psychomotor skills. Besides, audio tools are most appropriate for visually impaired learners. Therefore, there is no doubt why the trend of materials for literacy is integrating various computer programs and internet to support learners the utmost language acquisition. Nonetheless, the disadvantages of these tools may be realized as other equipments needed e.g. software's, projectors, and radios. Another drawback of these tools is the lack of opportunity for interaction between teachers and learner when the teacher on their side rely the success of the class only on materials themselves.

2.4.3. Components of Writing Instructional Materials

As writing instructional materials is a skilled job and can take time than any material writers can expect. So, they should consider components of instructional materials in order to write the exact needed materials for their students. Nunan (1995) (cited in Sunsom, 2001:31) suggests the components of instructional material as follows:

2.4.3.1. Input

Input provides opportunity for the students to learn and practice their language skills so that they can communicate in the real world. In fact, such input can be derived from a wide range of sources. Hover (1986) (cited in Nunan, 1989: 53) suggests sources of input such as letters (formal/informal), calorie counter, newspaper extracts, recipe, picture stories, extract from a play, driver's license, bus timetable, social security form, notice board item, business card, and high school year book.

2.4.3.2. Content focus

Content focus is about presenting vocabularies, grammar, and other relevant contents with the meaning. Such content can be either written (linguistic content) or drawn as a picture (non-linguistic form) depended on the purpose of the communication and the learning objective of the classroom.

2.4.3.3. Language focus

Language focus is about presenting grammar rules from the content for the student and helping them apply those rules in the real world.

2.4.3.4. Tasks

Tasks are activities in the classroom that can bring an understanding of language to the students and help them communicate in the real world with the target language. Nonetheless, teachers and materials writers should realize the exact needed topic of each unit prior to the writing of any instructional materials. Likewise, Nunan (1995) (cited in Sunsom, 2001:32-33) suggests an approach for writing instructional materials where tasks become one of important elements as follows:

1. Choosing the topic e.g. “Choosing the House for Rent”;
2. Collecting relevant materials e.g. advertisement in newspapers, and pictures of the house;
3. Choosing appropriate tasks from materials collected e.g. reading advertisement about “house for rent”, talking about furniture, and finding specific information from the newspaper;
4. Designing activities e.g. listening for specific details, role playing, and filling the gap;
5. Specifying grammar points based on the contents and activities e.g. Adjectives: big, close, cheap, small etc., the Present continuous: I’m looking for a flat, and Wh-questions: How much does it cost?;
6. Designing grammar tasks e.g. filling the gap with adjectives provided or using appropriate wh-questions with sentences given;
7. Designing more tasks to encourage the students to use language they have learnt e.g. making a group discussion to talk about the accommodation each student likes;

8. Giving tasks for students to practice the language they have learnt e.g. have students do the role-play and use expressions when choosing the house for rent such as What area is it in?, How many bedrooms has it got?, or How much per week is it?;

From the above discussion, one of the important elements when writing instructional materials is tasks. Tasks have an important role in motivating the students to practice and understand the language learnt from the language classroom. Therefore, all new materials writers should consider tasks as a critical element of writing materials so that the produced materials can be effective for learning languages (Sunsom, 2001).

2.4.4. Applying Six T's Approach for Writing Instructional Materials

When writing instructional materials, materials writers should consider an effective approach for writing instructional materials so that the process will not take too much time and can be effectively motivate the student to learn the language.

The underlying principle in the Six T's Approach is that all Content-Based Syllabus or Content-Based Instruction (CBI) is fundamentally theme-based (Brinton, Snow & Wesche, 1989) (cited in Stoller & Grabe, 1997: 1). In theme-based instruction, the students are provided opportunities to get exposed to instructional materials with real-life issues that could catch their attention, curiosity, and motivation (Brown, 1994).

Stoller & Grabe (1997) present the Six-T's Approach which the researcher found helpful for designing the materials. The approach has three basic goals as follows:

1. The specification of theme-based instruction is as central to all CBI.
2. The extension of CBI supports language-learning context as well as freedom to make major curriculum and content decisions among teachers and program supervisors.
3. The organization of coherent content resources for the instruction and the selection of appropriate language learning activities.

With the Six-T's Approach, the initial consideration has been given to an array of student needs, student goals, and institutional outcomes. Such criteria are finally specified as the six curricular components i.e. Themes, Texts, Topics, Threads, Tasks, and Transitions.

2.4.4.1. Themes

Themes are the central ideas that organize major curricular units. Whether a thematic unit integrates learning across contents or is written based on a single discipline, choosing a unifying theme or organizing concept for the unit is considered the first step to be performed.

Stoller & Grabe (1997) say that themes can be divided to three categories i.e. topical themes, conceptual themes, and problematic themes. A class should explore more than one theme from one given term so that the students can get some useful reading and explore more concepts that represent much more substantial learning. Table 2.1 shows examples of themes that organize a curricular unit from different instructional settings.

Table 2.1: Examples of themes

Sample themes	Possible instructional setting
Insects	Elementary school classroom
The solar system	Middle school or high school classroom(s)
Demography	University intensive English program
Austrian historic monuments	High school foreign language class (German)

2.4.4.2. Texts

Texts are written and spoken resources. They drive the basic planning for theme units. Text selection will depend on a number of criteria: student interests, relevance, and instructional appropriateness provide a first set of guidelines for determining text selection; format appeal, length, coherence, connection to other materials, accessibility, availability, and cost represent secondary criteria (Stoller & Grabe, 1997). Table 2.2 shows the four basic types of texts specified in theme units.

Table 2.2: The four basic types of texts specified in theme units

Types of texts	Examples of content resources
Instructor-compiled content Resources	Readings of various genres, videos, audiotapes, maps, tables, graphs, software
Instructor-generated content Resources	Lectures, worksheets, graphic representations, bulletin board displays
Task-generated content resources	Student freewrites, discussions, problem-solving activities, graphic representations, library searches, debates, surveys/questionnaires
External content resources	Guest speakers, field trips

2.4.4.3. Topics

In content-based instruction, topics should be selected to complement students' interests, content resources, teacher preferences, and larger curricular objectives. In general, topics should be organized to generate maximum

coherence for the theme unit and to provide opportunities to explore both content and language. A given theme unit will rely on specific topics selected for an exploration. For example, a teacher could choose to develop a theme unit on Native Americans by means of three different topics: rural versus urban living, traditional versus contemporary religious practices, and the values of young and older generations (Stoller & Grabe, 1997). Table 2.3 illustrates how theme units can be developed in different ways, depending on the topics designated (or negotiated) for exploration.

Table 2.3: Different sets of topics in a theme unit

Theme	One set of sample topics	Another set of sample topics
Insects	a. Insects which are helpful b. Insects which are harmful c. Insects which eat other insects d. Insects which eat vegetation	a. Ants b. Bees c. Caterpillars
Solar system	a. Humans in space b. Technology in space c. Research in space d. Pluto	a. Earth b. Venus c. Mercury
Demography	Impact of population on a. air b. water c. natural resources	Population trends a. in developing countries b. in developed countries c. and their impact on the environment

2.4.4.4. Threads

Threads are linkages across themes which create greater curricular coherence. They are not directly connected to the main idea that controls each theme unit. They are rather abstract concepts in terms of responsibility, ethics, contrasts, power that provide an easy way to link theme, review and recycle important content and language across themes, and revisit selected learning strategies. Threads can tie up themes that appear disparate e.g. American education, demography, and

toxic wastes resulting in a more unified curriculum. There can be a number of threads linking thematically different content, providing opportunities to integrate information and view both language and content from new perspectives (Stoller & Grabe, 1997). Table 2.4 shows how one thread could be used to link five different theme units.

Table 2.4: Thread that provides linkages among different themes

Thread that links various theme units	Themes
Responsibility to uphold civil rights for citizens control pollution regulate family size conduct ethical research protect endangered cultures	Civil Rights Pollution Demography Solar System Native Americans

2.4.4.5. Tasks

Tasks are the basic units of instruction through which the Six-T's Approach is realized on a daily routine. They are instructional activities and techniques utilized for content, language, and strategy instruction in language classrooms such as activities for teaching vocabulary, language structure, discourse organization, communicative Interaction, study skills, academic language skills. Tasks are planned in response to the texts being used in the Six T's Approach. That is, content resources drive task, decisions and planning.

Major tasks are sequenced within and across themes to realize curricular goals and are recycled with higher levels of complexity as students move from one theme unit to the next and as students progress through the academic year. This matter is done during an incooperation of learning with various tasks in the theme unit. These culminating activities require the synthesis of content information. They help students develop the skills they will need in regular content-area courses,

and provide a sense of successful completion for students as well (Brinton, Goodwin, and Ranks, 1994; Brinton, Snow, and Wesche, 1989; Chamot and O'Malley, 1994; and Mohan, 1996) (cited in Stoller & Grabe, 1997). Table 2.5 shows examples of tasks by Chaibi (2002) (cited in Bunyakarte, 2008: 30).

Table 2.5: Examples of Tasks

Focus of Instruction	Sample Tasks
Language skills	Pre-, during, post-reading activities; strategy training
Improvement (reading, writing, speaking, and listening)	Paced/speed reading; process writing (brainstorming, drafting, revising, editing; speed writes; conversational gambit practice; spontaneous speeches; directed listening)
Vocabulary building	World family exercise, semantic clustering, lexical sets and classification activities, dictionary practice, synonyms and antonyms, word wall activities
Discourse organization	Graphic organizers, strip stories
Communicative interaction	Role plays, simulation games, debates, problem-solving activities, class polls and interview, group work, cooperative learning
Study skills	Lectures and note-taking, test-taking strategies, library work

2.4.4.6. Transitions

Transitions are planned actions which provide coherence across topics in a theme unit and across tasks within topics. Transitions create links across topics and provide constructive entrees for new tasks and topics within a theme unit. Two major types of transitions are particularly effective topical and task transitions (Stoller & Grabe, 1997). Sample transitions that provide coherence across topics and tasks are illustrated in Table 2.6.

Table 2.6: Transition Activities

Transitions	Activities
Transition type	Sample transition activities in a theme unit on demography
Topical transitions	A deliberate shift in emphasis from global population trends, to trends in developing countries, to trends in developed countries, to trends in students' home countries. Students are explicitly made aware of these transitions.
Task transitions	Students are asked to (a) interpret a graph depicting population trends; (b) create a new graph with raw data obtained from a classroom survey; (c) write an interpretation of the new graph; (d) reconstruct the graph on the computer; and (e) incorporate the graph into a research paper, bulletin board display, or oral presentation.

Description and explanation of the Six T's are provided where themes are the basis for any curriculum planning, texts lead to the topic selection, topics then elicit and stimulate students' interests, creating connections that maintain student involvement and allowing for the completion of a final project, tasks are instructional activities through which the Six T's Approach is realized on daily activities. Transition and threads provide linkage in a content-based syllabus.

Stoller and Grabe suggest an outline of the Six T's Approach to language content instruction that can provide the broad interpretation of theme-based or content-based instruction. They point out that this approach has three main goals: (1) the specification of theme-based instruction is as central to all CBI, (2) the extension of CBI supports language-learning context as well as freedom to make major curriculum and content decisions among teachers and program supervisors, and (3) the organization of coherent content resources for the instruction and the selection of appropriate language learning activities. Therefore, materials writers can apply the

Six T's approach when writing instructional materials because it helps writers produce the exact needed materials in short time and contain different creativeness of both academic and physical designs more than ones widely sold in the market.

To summarize, when making decision about which tools to select in order to best accomplish learning objectives, materials writers should carefully consider these elements i.e. the various delivery systems available, the content or message to be conveyed, and the form in which information will be presented. No one type of media or materials is the most suitable for all students in promoting acquisition and retention of information. Most importantly, materials writers should bear in mind that instructional materials is not only written to supplement and support the educator's teaching efforts but also to complement the successful achievement of learner outcomes.

2.5. Self-instruction

The testimonial of education does much rely on alternative learning styles which support the concept of giving learners the opportunity in which knowledge can be acquired on their own; outside of the disciplined classroom or the lesson plan. Such innovative approaches of learning are becoming more and more essential for education (Rodgers, 2002:4).

For ESP teachers, adult learners are the major client of educational settings who carry their own learning style and self-preferences for the class they attend. Inevitably, the idea of self-instruction or self-study should be raised among ESP practitioners and ESP learners because when the teachers cannot assist the learners in the traditional classroom, concepts of study independently will enhance another possible chance for acquiring knowledge as well.

2.5.1. Definitions of Self-Instruction

An alternative approach of learning among learners with their own pace, approach and attempting to create action to serve personal individual needs, skills, has been described as self-instruction (Dickinson, 1994: 5).

Benson (2001: 31) gives definition to self-instruction as self-instruction is learning under control of learners themselves rather than the patronage of the teacher. Such approach is an elaboration between self-access learning environments and learners by which knowledge can be gained.

Jones (1998: 378) defines self-instruction as individual learning that learners have their own learning objectives, skills, and strategies of which knowledge can be acknowledged by their learning plans.

From above definitions, self-instruction can be described as a mode of self-directed learning or self-study in which individual preferences of learning styles, contents, and other relevant aspects can be acquired by themselves and with their own paces (Detaramani and Chan, 1999: 124-157).

Guglielmino (1997) presents the eight scales in of readiness to learn independently known as the Self-directed Learning Readiness Scale (SDLRS) as follows:

1. Openness to learning opportunities: learners know what is the utmost knowledge for learning and know when, where, how, and why such know need to be known.

2. Self-concept as an effective learner: learners are knowledge seeker and prefer to learn for the entire life. They can manage the time to pursue their target knowledge, set their own learning objectives containing unlimited creativities

3. Initiative and Independence in learning: learners affectively acquire knowledge by themselves and cognitively think and are ready to all mistakes committed.

4. Informed acceptance of responsibility for one's own learning: learners know what they exactly need to know and realize their status in the community they belong.

5. Love of learning: learners always learn new things and taking examination is part of learning.

6. Creativity: learners know how to manage their learning through their learning styles. There is less important to be taught by the teachers as learning can be acquired independently.

7. Positive orientation to future: learners prefer to solve challenging problems and have ability to connect knowledge to their life-long plan. For them, library is the essential place for acquiring knowledge.

8. Ability to use basic study skills and problem-solving skills: learners are able to make decision and judgment for a particular challenging problem via listening, speaking, reading, and writing.

These eight criteria pay much attention to individual learning preference and individual readiness to acquire knowledge. However, the definition of Knowles remains useful since it is broad and descriptive. For Knowles (1975: 19-21), self-instruction is “a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and materials resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.”

In short, self-instruction is indeed congruent with the dimensions of that definition, namely, learners take initiative, diagnose their individual learning needs, formulate learning goals, identify and use learning resources, and evaluate learning outcomes.

2.5.2. Self-Instruction and Learning Theory

Self-instruction is learning approach that is grounded in humanistic, deterministic, constructivist, and transformative philosophies which build upon and complement each other (Lunyk-Child et al., 2000: 116-223)

An approach namely self-instruction lets individuals have freedom, within the boundaries of the curriculum goals and outcomes, to determine educational choices, and is ultimately responsible and accountable for the learning that occurs.

As learners develop their knowledge and skill base, they are encouraged to explore and use frameworks for learning. This exploration of approaches to learning together with an ongoing examination of beliefs, values, and experiences, leads to change which is internalized and attains personal and intrinsic meaning. For transformation to occur, learners need to be free to act and experience control over their learning destiny. This freedom is salient feature of problem-based learning which is widely adopted among educational settings whose learners prefer to learn independently with their own pace.

2.5.3. Characteristics of Self-Instructed Learners

Lunyk-Child et al. (2000) present chronological situations in which learners become self-instructed learner as follows:

1. In the beginning, learners may frequently express, say, frustration when they are asked to make decision and to determine how they will undertake learning

experiences and how evaluation should be made. Learners may not need to articulate their thinking process publicly as they will feel mistrust, suspicion, anxiety or doubt and finally become angry if the mistake is made.

Therefore, during this phase, teachers should initially facilitate their learners' learning process by providing clear statements of expected course outcome and complete descriptions of students evaluation methods is helpful in alleviating anxiety.

2. As learners progress their education, they will soon learn to trust their own abilities, and in time, to work either in group or individually, to make decisions about learning, to become responsible and accountable for their learning and finally their world view will be expanded. This second phase may take one or two terms for many learners to acknowledge the process of self-instruction and to cease problems explicitly (Rideout, 2001).

3. The last phase can explicit the self-instruction among learners as they direct their own inquiry about the problems presented, and can assist their peers in general hypothesis generation, data collection, and intervention. By expanding their knowledge to improve the quality of information, their critical appraisal skills can be developed simultaneously. By the end of the program, learners will become proficient at self-instruction holding skills that help them continue to learn and take control of their learning over their lifetime.

Kasworm (1983: 125-129) describes a similar process, comprised of five components that depict state of change over time of self-instruction as follows:

1. Learners become less authority to independence.

2. Learners gradually move away from extrinsic to intrinsic motivators for learning.

3. Learners will be proactive inquiry and able to evaluate themselves of their intellectual development.

4. Learners move from authority designated learning structures to learner-selected ones.

5. Finally, learners will adopt multidimensional strategies for planning and conducting professional learning activities

However, the aforementioned skills are not so exclusive that learners can simultaneously adopt all or even a combination of them in order to direct and control their learning experience. Lunny-Child et al. (2000) suggest that personal attributes; empathy, communication, flexibility, negotiation skills, and insight, need to be fostered for such learners as to possess a positive way of learning and to share it with others.

2.6. Importance of Listening in English

The need to be able to understand English is increasing day by day. Therefore, a growing need for international citizens to be able to understand not just standard British or American spoken English but other varieties spoken around the world is also amplifying.

Hunt (1987:14) mentions that in 70% of working hours, listening comparing to speaking tends to be the most used modality when people want to communicate. Oxford (1993:206) adds that among the four skills in English, listening is more essential and plays more vital roles in communication than other three skills.

Rost (1994) (cited in Nunan and Miller, 2002:5) gives a summary of significance of English listening as follows:

1. Listening is essential in language learning as it acts as language input to the learners. If the learners unable to comprehend what has been input, they will learn nothing.

2. Listening initiates interaction. When the learners understand what is uttered, it means interaction happens. Hence, language learning occurs.

3. It is challenging for language learners to comprehend what is heard from authentic listening situations.

4. Listening practices relates to many interesting activities that motivate learners to learn more and more.

To summarize, listening is vital because learners of English can receive information on vocabulary, grammar, pronunciation, spoken word order, as well as the stress patterns of words, phrases and sentences. Besides, they can also register and retain words and phrases which they have already known to be acceptable for their own use later on. Therefore, without the skill of listening, there can be no language learning, and hence no communication (Stevenson, 2010).

2.6.1. Processes of Listening Language

According to Brindley (1997), listening process in second language are categorized into two main groups as follows:

The bottom-up process

This process initially relates to the identification of smallest units, the lowest level of detail and moving up to the highest level. Simply say, the listening

input is first decoded into phonemes (the smallest sound segments that can carry meaning), and this knowledge is used to identify words, then the processing continues to the next higher stage, an analysis of the semantic content and understanding of the basic linguistics meaning, and finally understand what the speakers mean.

The top-down process

On the other hand, the top-down process depends on the use of context and background knowledge to understand the meaning of the incoming message (Brindley, 1997:67). Buck (2001:3) believes that listening comprehension is a top-down process in the sense that various types of knowledge involved in understanding a language are not applied in any fixed order. He says that this can be referred to as an interactive process.

Brindley (1997) points out that in recent years, simple bottom-up or top-down processes have been rejected as inadequate for explaining how second language learners acquire input. Interactive-compensatory models that are based on the view that information from more than one level is utilized simultaneously have replaced them.

2.6.2. Factors Affecting Listening Language

Brindley (1997) gathered crucial factors that will affect ability of listening in English as follows:

Lexical knowledge: Lack of knowledge of key lexis can lead to miscommunication or breakdown. The ignorance of vocabulary was the major factor that causes lack of listening comprehension beyond the intermediate level of language learning.

Syntactic knowledge: Target language syntax seems to be an important factor in increasing the amount of linguistic material that can be retained in short-term memory.

Background knowledge: It is suggested that learners' background knowledge is of major importance in determining how the message heard can be interpreted. Background knowledge is obviously important in listening comprehension. If the listener shares the same knowledge as the speaker, much of what is said can be understood in terms of the top-down process.

Speech rate: A range of studies on the speech rate in SLA listening tests has been reviewed and it was found that the faster rates of delivery can significantly reduce comprehension.

Noise: The ability to understand the message of native and non-native learners when the noise ratio increases is different.

Contextual support: It is a very important fact affecting second language listening, particularly at the lower levels of ability.

Memory: It is obviously an important factor in language comprehension.

2.6.3. Benchmarks of listening in English

Listening comprehension is difficult to explain and to assess because it is an invisible cognitive operation. Buck (2001:1) adds that listening comprehension is a very complex process comparing to hearing which is a physical ability while listening is a skill. Listening skills allow one to make sense of and understand what another person is saying. In other words, listening skills allow you to understand what someone is "talking about".

Canadian English Language Benchmarks Assessment for Nurses (CELBAN) is an assessment tool designed for internationally educated nurses who are applying for licensure in the nursing profession in Canada. CELBAN is based on an extensive analysis of the language demands of the nursing profession across Canada. The content of the CELBAN reflects the language tasks that are required of nurses in the Canadian workplace for which the Canadian Language Benchmarks (CLB) use as a standard. General aspects of listening proficiency needed for those who wish to become nurse in Canada are as follows:

1. Follow most conversations at a normal rate of speech;
2. Obtain key information for important tasks in authentic exchanges and presentations in some demanding contexts of language use;
3. Infer speaker's bias and purpose, and some other attitudinal and socio-linguistic information;
4. Identify social roles, relationships, and relative status of speakers in dialogues;
5. Follow multi-step complex instructions for a familiar process or procedure;
6. Evaluate extended oral suggestions for solutions to problems, recommendations and proposals in relation to their purpose and audience; and
7. Identify facts, opinions and attitudes in conversations with abstract and complex ideas on a familiar topic.

Thailand's economy today depends mainly on worldwide competition, and for the country to be competitive globally, it is essential that workplace personnel

communicate competently in English. Therefore, English Language Development Center (ELDC) provides benchmarks of English listening skills for nurses as follows:

1. Understand verbal details of social exchanges e.g. greetings, leave-taking, introductions;
2. Identify patients' expressions used to attract attention; request assistance; appeal for repetition and clarification, and express complaints;
3. Understand and follow instructions, requests, orders and suggestions in a work situation;
4. Recognize key words and expressions related to work in dialogues and meetings;
5. Understand specific detailed information in moderately complex work-related dialogues, reports, presentations and meetings;
6. Follow formal advice, instructions, directions, recommendations and warnings on work related processes and procedures;
7. Understand phone or voice-mail messages on familiar topics related to work;
8. Identify attitudes, emotions and intentions of patients and colleagues; and
9. Understand different accents.

From these two aforementioned benchmarks of listening skills needed for nurses, there should be a summary of English listening skills needed for student nurses as follows:

1. Recognize vocabularies related to the health science;
2. Detect key words such as those identifying topics and main ideas;

3. Understand inferred information e.g. speaker's attitude or intention;
 4. Guess meaning from context;
 5. Retain chunks of language in short-term memory;
 6. Recognize basic syntactic patterns;
 7. Detect sentence constituents such as subject, verb, object, and prepositions;
 8. Recognize reduced forms of words e.g. I'll, I'm gonna;
 9. Recognize typical word-order patterns e.g., aren't I?,, isn't it?;
- and
10. Recognize stress and rhythm patterns, tone patterns, or intonation contour.

2.7. Synthesis of Previous Related Researches

Several researchers have conducted the study about self-study. This matter has urged the researcher to conduct another research in order to find out the potential of self-instructional materials that can affect the level of acquiring English.

Dhuwadaratrakul (2543) conducted the research of the level of readiness to self-directed learning from 264 secondary students of Sacred Heart Convent School, Chiang Mai by adapting the SDLRS of Fuglielmino (1997) and found that participants were ready to adapt self-directed learning into their learning environment but only two aspects i.e. initiative and independence in learning and creativity were still neglected in the teaching application.

Yeung and Hyland (1999:158-174) studied the effectiveness of using self-access learning as the facilitator in the English business course in Lingnan College, Hong Kong. The results revealed that though most students did not feel that enough

guidance was provided from their teachers they still had a positive attitude toward using SAL for improving their English language learning and found it an interesting form of learning more than the traditional classroom.

Detaramani (1999: 124-157) presented the positive result from their study of needs, attitudes, and motivation towards learning language by adopting self-instruction approach with 585 students from City University of Hong Kong. The results revealed that the participants who were keen on integrating self-instruction by attending more self-access center relatively possessed an improvement in English. They have also valued the strong extrinsic motivation to improve their English by learning with multimedia and facilities focusing on developing speaking and listening skills.

Klunklin et al.,(2010:177-181) conducted a study to reveal the high level of readiness in which self-directed was integrated in learning process among 272 student nurses at Chiang Mai University. The overall self-directed learning readiness of participants was at a high level of openness. They viewed the self-directed learning as an effective approach, initiative and independence in learning, informed acceptance of responsibility for one's own learning, creativity, and the ability to use basic study and problem solving skills. These findings encouraged nurse educators to apply self-directed learning into their courses in order to improve their teaching methods and to promote life-long learning for all student nurses in Thailand.

Nonetheless, there is quite little number of researches over self-instructional materials that have been done with the learning outcome of student nurses in terms of English listening. Therefore, it is interesting for the researcher to conduct the research on the development of self-instructional materials based on needs of student nurses as

the results from the study will be an another insistence of the value in integrating SIMS into language learning.

2.8. The Present Study

Since the purpose of this study is to develop self-instructional materials for student nurses who wish to possess another level in English listening skills, theories and frameworks related to ESP materials design and self-directed learning were carefully selected and integrated into the process of developing the proposed self-instructional materials to enhance English listening skills for student nurses. The self-instructional materials of the present study have illustrated an integration of EAP and EOP in which the materials are developed for nursing students and contents along with texts are derived from needs of student nurses themselves.

The researcher hopes that the developed self-instructional materials are able to help student nurses improve their listening skills needed for their future hospital oriented tasks and turn them to be autonomous learners who wish to pursue new knowledge for their entire life.

CHAPTER III

RESEARCH METHODOLOGY

3.1. Introduction

This chapter describes the research methodology of the study. The description covers research design, participants, and research instruments for each stage of the study together with methods of data collection and data analysis.

The main objectives of the present study are to investigate the need of English listening skills for student nurses, to develop self-instructional materials to enhance English listening skills for student nurses, and to evaluate the effectiveness of the developed materials.

3.2. Research Design

The study consists of two phases including materials development and materials implementation/evaluation. Besides, five stages of conducting the research are illustrated as a research plan in Table3.1.

Table 3.1: Research Plan

Phase of the study		Steps to be applied
Phase I Development of Materials	Stage 1 Needs Analysis	<ol style="list-style-type: none"> 1. Identify population and samples 2. Review related literature 3. Gather information about needs/skills of English listening required for student nurses by using a documentary research. 4. Design the instruments 5. Validate the instruments by panel of experts 6. Distribute the questionnaire and collect data from 300 student nurses 7. Analyze the data
	Stage 2 Materials Development	<ol style="list-style-type: none"> 1. Explore theoretical framework for materials design 2. Specify important findings from Stage 1 (Needs Analysis) 3. Construct the material production and design (academic aspects and physical aspects)
	Stage 3 The verification of the developed SIMS & The design of listening comprehension test and the materials evaluation form	<ol style="list-style-type: none"> 1. Validate and evaluate both academic aspects and physical aspects by panel of experts 2. Adjust the materials accordingly 3. Design the listening comprehension test 4. Validate by panel of experts 5. Readjust the test accordingly 6. Design materials evaluation form 7. Validate by panel of experts 8. Readjust materials evaluation form accordingly 9. Pilot both instruments i.e. one sample lesson unit and a listening comprehension test with ten student nurses 10. Distribute the materials evaluation form 11. Readjust the lesson unit and the test accordingly
PHASE II Materials Implementation and Evaluation	Stage 4 Materials Implementation	<p>Implementation of the developed materials with the participating group of student nurses via;</p> <ul style="list-style-type: none"> • One-on-one evaluation • Small group evaluation • Large group evaluation
	Stage 5 Evaluate the effectiveness of the developed SIMS	<ol style="list-style-type: none"> 1. Evaluate the effectiveness of the materials via the following instruments; <ul style="list-style-type: none"> • The English listening comprehension test • The materials evaluation form 2. Write up the results and the findings

Phase I - Development of Materials

There are three stages to be performed during this phase as follows:

Stage 1: Needs Analysis

During this first stage, a needs analysis was conducted to investigate English listening skills needed by the participants in the study. Two research instruments including a documentary research and a questionnaire were designed and utilized.

1.1. Participants of the Needs Analysis

Purposive Sampling to obtain Participants for the Needs Analysis

Throughout this present study, purposive sampling was employed to obtain the subjects of the study. According to Emory (1976), purposive sampling involved an effort to obtain a sample that is conventional to some predetermined criteria. Therefore, criteria for selecting participants for the needs analysis were listed as follows:

For the expert in validation process

1. English teachers or lecturers must possess a doctoral degree in English language instruction or other related fields.
2. ESP teachers or lecturers must have been teaching ESP courses for undergraduate students at least five years and are responsible for the ESP materials writing or course planning.
3. ELT specialist in nursing must possess a degree in English language instruction and have been teaching English for undergraduate student nurses at least five years and are responsible for the ESP materials writing or course planning for student nurses in any nursing colleges located in Bangkok.
4. ESP assessment specialist must possess a degree in English language assessment and have been teaching English courses for undergraduate

students at least five years as well as responsible for the English materials writing or course planning.

Therefore, panel of experts in this stage including one expert from ESP assessment, one English teacher with a doctoral degree and experiences in teaching ESP, and one ELT specialist in nursing were invited to validate the questionnaire used for the needs analysis.

For student nurses

1. Student nurses must study in either year (1-4) in School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok, in the academic year 2011.

2. Student nurses must be willing to apply the developed self-instructional materials for their self-study.

Therefore, the voluntary group of 300 student nurses studying between the first year and the fourth year at the School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok, in the academic year 2011 was invited to be the participants of the study.

1.2. Instruments used for the Needs Analysis

All of the instruments were validated by three experts and were trialed to ensure the reliability of the data gathered before the actual use. Instruments used in this phase were documents and the questionnaire to assess the needs of 300 student nurses of the School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok.

1.2.1. Content Analysis

A wide variety of relevant documents including websites and authentic materials in the field of listening and materials used for listening in English were gathered and analyzed to scope the initial framework of developing self-instructional materials. Documents in the field of ESP and materials design used in this present study included those authored by Hutchinson & Water (1987); Nunan (1995); Graves (2000); Richards (2001); Littlejohn (2003); and Tomlinson (2003). Moreover, English listening skills and competency outcomes for adult L2 learners proposed by the English Language Development Center (ELDC) of Thailand and Canadian English Language Benchmarks Assessment for Nurses (CELBAN) helped the researcher summarize skills of listening in English for student nurses. The results retrieved from the content analysis were validated and approved by experts.

1.2.2. The Questionnaire (Appendix A)

Though details and information gained from content analysis had provided some important issues of developing instructional materials for listening in English, the exact needs of the participating group of 300 student nurses was still considered essential for developing the self-instructional materials for them. Therefore, the questionnaire was an instrument used to find these 300 student nurses' needs in terms of lacks, wants, and problems concerning skills of listening in English, and types of materials needed for practicing their listening skills. This questionnaire applied five-Likert's scales (1 to 5) and consisted of six parts as follows:

Part 1: Objective of the Questionnaire

This part of the questionnaire described the objective of the questionnaire.

Part 2: Participants' Background Information

This part of the questionnaire aimed to gather background information of the respondents in terms of gender, age, years of studying English and means for practicing their listening skills by asking them to check the answer that most corresponds to themselves.

Part 3: Level of Importance and Necessity of English

Listening Skills for Daily Life

This part of the questionnaire aimed to gather the respondents' opinions about the importance of English listening and the necessity of each skill for their daily life. The respondents were asked to rate the level of importance and necessity of English listening skills on five scales from 'the most important/the most needed (5)' to 'the least important/not needed (1)'.

Part 4: Degree of Causes and Problems

This part of the questionnaire aimed to gather the respondents' problems when listening in English. Such problems may be caused by the respondents themselves, by learning materials, or by other related problems. Five degrees of problems applied to rate the levels of problem were ranging from 'the most problem (5)' to 'no problem (1)'.

Part 5: Needs of Self-Instructional Materials

This part of the questionnaire asked the respondents to indicate their needs of academic aspects and physical aspects to scope the specification of self-instructional materials. Five degrees of necessity applied in this part were ranging from 'the most needed (5)' to 'the least needed (1)'.

Part 6: Additional Suggestions

This part asked the respondents to give their additional comments and suggestions in the open space.

1.3. Data Collection of the Needs Analysis

Once the first version of questionnaire was constructed in January 2011, the researcher had three experts in the ESP/ELT field of teaching and assessment to validate its contents during February – March 2011. They were asked to validate each item in the questionnaire by using three scales on an index of item objective congruence (IOC). Later, the questionnaire was revised based on the experts' suggestions in April 2011.

Three experts were invited to validate the content validity of the questionnaire using three scales (-1 means the item is not appropriate; 0 means 'I am not sure'; and +1 means the item is appropriate) on an index of item objective congruence (IOC) called 'The checklist for the experts to validate the questionnaire form (see Appendix F). The item of questions which received ≥ 0.5 was accepted while the item which received < 0.5 was rejected or revised according to the suggestion of the experts. Overall, the experts found that the questionnaire was suitable to use with a few minor changes such as misspelling and wording needed to be revised. Therefore, the researcher had the questionnaire revised accordingly before distributing to the participating group of 300 student nurses.

On May 1, 2012, the revised version of the questionnaire for conducting the needs analysis (See Appendix A) was ready to be distributed to a participating group of 300 student nurses of the School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok. The researcher managed this procedure by

going to the School of Nursing, Faculty of Medicine, Ramathibodi Hospital and distributing all 300 copies of the questionnaire to a voluntary student nurse. She was asked to allocate these 300 copies to other student nurses in the school. The researcher gave five days for the respondents to complete this questionnaire form and went back to collect the questionnaire from the student nurses. Interestingly, all 300 copies of the questionnaire were returned and the majority of the respondents were fourth year student nurses.

1.4. Data Analysis of the Needs Analysis

After all 300 copies of the questionnaire were returned, each item of the questionnaire was descriptively analyzed by mean (\bar{x}) and standard deviation (S.D.) to gain data for scoping the necessity of academic aspects and physical aspects of the self-instructional materials. The five Likert's scales together with the interpretation suggested by Best (1970) were adapted to rate the necessity of each item asked inside the questionnaire. The item rated 4.51 – 5.00 was the most necessary, 3.51 – 4.50 was very necessary, 2.51 – 3.50 was necessary, 1.51 – 2.50 was somewhat necessary, and 0.00 – 1.50 was not necessary.

Stage 2: Materials Development

The second stage was to translate the information obtained from the needs analysis (from Stage 1) to the process of materials design which can be described as follows:

2.1. Explore Principles of ELT/ESP Materials Development

Tomlinson (2003) proposed three principles of materials development that the researcher could take into account when writing the self-instructional materials as follows:

1. The materials must contain plentiful spoken and written texts which provide a broad experience of language used to achieve outcomes in a variety of text types and genres and in relation to topics, themes, events, and locations.

2. The language must be authentic in the sense that it represents how the language is typically used.

3. The learners must be able to be exposed to sufficient samples of language in authentic use to provide natural recycling of language items and features that might be useful for the learners to acquire.

Moreover, trends of writing listening tasks suggested by Promwong (2520) as well as trends of writing instructional modules suggested by Nunan (1995) and Lockwood (1998) were also reviewed.

2.2. Specify Important Findings from the Needs Analysis

Findings of the needed English listening skills and the needed instructional materials from the questionnaire have provided some critical issues for the researcher to develop the self-instructional materials to enhance listening skills for the participating 300 student nurses. The needs of academic aspects help the researcher specify the exact wants and needs of language features to be applied inside the self-instructional materials as presented in Table 3.2.

Table 3.2: Needs of Academic Aspects of Self-Instructional Materials

Number	Academic Aspect
1	The language use
2	Contents
3	The presentation of contents The design of exercises and activities.
4	The organization of contents

On the other hand, findings related to the physical aspects helped the researcher specify and rank the wants and needs of physical features to be applied inside the self-instructional materials as presented in Table 3.3.

Table 3.3: Needs of Physical Aspects of Self-Instructional Materials

Number	Physical Aspect
1	Quality of sounds recording
2	Size of the materials
3	Durability of the materials
4	Printing and lay-out

2.3. Organizing the Materials' Contents and Activities

Contents of each unit were organized using Stoller and Grabe's eight-step of Six T's Approach. Examples were chosen selectively to show step by step how the Six T's Approach was at play in organizing the content inside the self-instructional materials. Eight steps of the Six T's Approach are presented as follows:

2.3.1. Step 1: Establishing the Content

The content was about nursing as the main participants were student nurses from School of Nursing, Faculty of Medicine, Ramathibodi Hospital. A participating group of 300 student nurses were asked to rate listening skills according to their degree of necessity from the most necessary (5) to not necessary (1) with the questionnaire form. Therefore, contents inside the self-instructional materials were established according to their necessity.

2.3.2. Step 2: Establishing Themes

Themes were the central ideas that organized the units. The content of the material was established using the following criteria. Themes: (1) were based on conceptually important and relevant ideas for students and instructional

setting, location, etc., (2) were relevant to the local context, (3) depend on types and extent of interesting and appropriate texts that are available and (4) depend on the number of options for captivating topics within the unit. The said criteria were considered and applied; helped establish the content of materials which was nursing and finally the themes that emerged were Hospital Admissions, Symptoms, Accidents and Emergencies, Medication, and Alternative Treatments.

These themes later became the five thematically-related units of the self-instructional materials including Unit 1: What happened to you?; Unit 2: It is more painful!; Unit 3: It's an accident!; Unit 4: What dosage am I going to give?; and Unit 5: I feel relieved!

2.3.3. Step 3: Choosing Listening Texts

To choose suitable texts for the materials, the researcher referred to documents both written and aural. Texts that help establish the nursing-oriented contents were adapted and compiled to create the listening activities. The criteria for choosing texts including (1) range that complements institutional objectives; (2) genres and formats assembled at appropriate level of difficulty; (3) motivating; (4) engaging lead into theme; (5) best at providing content resource; (6) create threads that link; and (7) culminate in tasks or projects as natural extension of content. Listening texts used in the self-instructional materials were presented in Table 3.4.

Table 3.4: Listening texts used inside the materials

Theme	Texts	Text type	Resources
1. Hospital Admissions	- Vital Signs Checking	Researcher-compiled content resources	Listening of various genres, videos, audiotapes, maps, tables, graphs, and etc.
2. Symptoms	- Ward Round Regulations - Delivering a baby - Pains around body		
3. Accidents and Emergencies	- Death of Whitney Houston - Cardiac Arrest - Death from eating triple-bypass burger		
4. Medication	- Medication administration i.e. cough syrup; ointment; capsule; nostril spray; antibiotic cream - IV prescription chart		
5. Alternative Treatments	- Qigong - Acupuncture		

2.3.4. Step 4: Formulating Topics

The topics selected for the course were based on the following criteria: (1) selected to complement student interests and content resources, (2) organized to generate maximum coherence for the theme and (3) provided opportunities to explore both content and language. The list of topics used for the self-instructional materials was presented in Table 3.5.

Table 3.5: Topics used in the materials

Theme	Topics
1. Hospital Admissions	Getting patients to the hospital
2. Symptoms	Pains around body
3. Accidents and Emergencies	Managing acute heart failure
4. Medication	Distributing medication
5. Alternative Treatments	Alternative medicines from the East

2.3.5. Step 5: Selecting Possible Threads

Threads were linkages across themes which created the coherence inside the lesson unit. They were concepts that provided means for linking themes and for reviewing or recycling important content and language themes that tie

up each strand in the content, topic, theme, task, etc. Logical relation among the five themes in the course: *Hospital Admissions, Symptoms, Accidents and Emergencies, Medication, and Alternative Medicine* were established by their being nursing-oriented. This logical relatedness was, therefore, a thread in itself that would promote understandability and learnability of the texts. The student nurses were made aware of ways to link, develop and elaborate their ideas about their listening to promote their comprehension. The following figure described how certain threads were selected and adapted in the self-instructional materials.

At the beginning of UNIT I, the students were asked to do the pretest to validate their initial listening skills aimed for the unit. Later they were asked to pre-read the list of vocabularies widely used for nursing-oriented jobs. Different illustrations – pictures, graphs, and diagrams provided a comprehensive input of texts presented. They had to choose, match, fill in the gap, or even summarize the exercise followed. As they carried out the task, skills were pulled together the completion of the communicative task of the unit. The task of matching the picture with the correct illustration and filling the gap with the vocabulary were threads that resulted in the effective integration or weaving or linking of the skills.

Then as the unit moves on, the students were increasingly exposed to more nursing contents and pick up listening skills as they had accomplished different tasks. They were asked to get personal details needed for completing the medical form. They needed to react to the expressions used between the nurse and the patient by jotting down details said between interlocutors. They were expected to write information over the patient's name, gender, date of birth, siblings, frequency of alcohol and smoking intake, underlying diseases, and reason for coming to the hospital. Another one or two texts of listening resulted in loose threads and students could think of and used texts assembled as threads in the course to understand the larger picture or a unified content that was nursing. This unity was aimed at facilitating comprehension.

Content itself was used as a thread. The grammar aspects raised an awareness of the importance of English grammar. Grammar tasks were thread embedded in the unit as a unifying thread in itself. The specialized contents were to create linkages, and gave the unit's coherence and student content familiarity. Besides, each unit would provide opportunities for students to integrate information for a better understanding of the texts they were listening to.

Figure 3.1: Discussion of how threads were selected and adapted in the self-instructional materials

2.3.6. Step 6: Sequencing the Content

Sequencing decisions depended on the difficulty of tasks as the students tackled the content and accomplished the activities. The following discussion describes how the unit was sequenced.

The unit started with a pretest to assess students' listening skills before going through another activity. Later, an introductory task called "Warming Up" reminded students what they had known and would know inside the unit and would preview common vocabularies used in the unit. Vocabularies and expressions from "Warming Up" could be applied in the following task called "Listening Task 1" and followed by "Listening Task 2" which allowed students to practice their different skills of listening. The grammar aspects called "Language Awareness" allowed students to self-study and practice their language competency with sample expressions and exercises. The "posttest" was administered to assess listening skills aimed for each unit right after the listening task 2. The self-assessed form called "checklist" provided opportunity for students to assess the skills right after finishing all tasks.

Figure 3.2: Discussion of how the unit was sequenced

Table 3.6 illustrates the sequencing of the unit of the materials.

Table 3.6: Sequencing of the unit of the materials

Theme	Unit	Tasks
Hospital Admissions	Unit 1: <i>What happened to you?</i>	<ol style="list-style-type: none"> 1. <i>Pretest</i>: to pre-validate listening skills aimed in each unit 2. <i>Warming up</i>: this task taps students' background knowledge. 3. <i>Listening task 1</i> and <i>Listening task 2</i>: these tasks allow students to listen to different inputs and for different purposes in order to practice different listening skills. 4. <i>Language awareness</i>: this section helps students analyze key points of grammar and vocabulary. 5. <i>Posttest</i>: to assess students' listening skills after every task inside the unit are done. 6. <i>Checklist</i>: this section allows students to self-assess according to unit objectives.

2.3.7. Step 7: Designing Tasks

Each unit had a highlight text that draws students' attentions. The text was an engaging current situation or information with tasks that require students to accomplish and enjoy at the same time. The task was determined by the

text materials. These materials fit into two kinds of scaffolds: reception scaffolds and transformation scaffolds. Receptive scaffolds helped the students gather information from the materials. They prompted the students to organize and record what they saw, for example, “Warming Up” in the picture of unit 1. This task helped students extract key information from the provided illustration. On the other hand, transformation scaffolds helped the students change the information they received from the text into some other forms, for instance, a space which prompted students to categorize logically and chronologically the information they had heard.

2.3.8. Step 8: Determining Transitions

Transitions facilitated a natural and systemic flow of content and tasks from the first task to the following task. Table 3.7 presents example of transitions extracted from the Listening English for Nursing Purposes course syllabus.

Table 3.7: Transitions inside the materials

Unit	Topical Transition	Tasks Transition
1	Topics move from a small department to a bigger department: triage nurse counter to a specialized hospital department that deals with specific treatment area.	<ul style="list-style-type: none"> - Move from simple task to a more complex one, for instance, listening to specific information to giving fundamental diagnosis to the patient. - From listening to writing.
2	Topics move from the narrower personal practices to the wider standard practices in the real world	<ul style="list-style-type: none"> - From listening to writing (<i>note taking</i>) - Move from simple to more complex: rating a patient’s physical condition to providing a correct dose of medication or correct diagnosis

*Note that these tasks, Bloom’s and Barrett’s taxonomies are at work from knowledge level, comprehension, application, analysis, synthesis, and evaluation. E.G. Interpreting information= comprehension level, constructing a graph based on information = application, comparing and contrasting information in a graph with a tree diagram= analysis

Stage 3: The Verification of the Developed SIMS and the Design of Listening Comprehension Test and Materials Evaluation Form

The third step is to validate and evaluate the self-instructional materials plus the listening comprehension test and materials evaluation form.

3.1. Experts' Validation and Evaluation of the Self-Instructional Materials (Appendix H)

After the contents and materials were designed, three experts including two ESP teaching experts and one nursing content specialist were invited to validate and evaluate the proposed contents and materials. The questionnaire using three scales (-1 means the item is not appropriate; 0 means 'I am not sure'; and +1 means the item is appropriate) on an index of congruence (IOC) was used. The item of questions which received ≥ 0.5 was accepted while the item which received < 0.5 was rejected or revised according to the suggestion of the expert.

The experts found both the physical aspects and academic aspects of the materials acceptable with a few minor comments mostly in terms of spelling and word choices that need to be revised and adjusted. The contents and materials were revised and adjusted accordingly.

3.2. The Design of Listening Comprehension Test (Appendix D)

Contents inside the developed self-instructional materials shaped the specification of the test in which topics or issues of the test were considered popular and widely acknowledged for the student nurses. This test, therefore, was designed to assess the participating student nurses' English listening skills before and after using the developed self-instructional materials.

This listening comprehension test was composed of questions in which students were given short conversations, long conversations, and monologues in multinational accents. Students were instructed to select the best answer from multiple-choice questions. The listening module of the test contained 30 items of questions in three parts (50 marks); part A, B, and C and took approximately 26 minutes to complete.

Following the formats which were based on the first part of the Test of English for International Communication (TOEIC), three formats i.e. photographs, question - responses, and short talks were adapted with assessment task types including four-optional multiple choice and filling the gap format with impromptu caption of picture. To identify types of listening performance suggested by Brown (2003), a category to consider assessment tasks and procedure comprised within was as follows:

1. *Responsive*. Listening to a short stretch of language – a greeting, question, command, comprehension check, etc. – to make an equally short response.
2. *Selective*. Listening to ‘scan’ for designated information in longer stretches of spoken language such as radio news items, stories, or classroom direction.
3. *Extensive*. Listening to develop a global understanding of spoken language (top-down process). This kind of performance ranged from listening to lectures to listening to a conversation and deriving a comprehensive message, purpose, gist, and main idea.

3.3. Experts’ Validation of Listening Comprehension Test (Appendix J)

To ensure the content validity of the test, three experts (one in the field of assessment, one English teacher with a doctoral degree and experience in teaching

ESP, and one nursing content specialist) were invited to validate and evaluate the test by completing an item checklist form of three scales (-1 means the item is not appropriate to ask; 0 means 'I am not sure'; and +1 means the item is appropriate to ask) on an index of item objective congruence (IOC).

The question items which received ≥ 0.5 was accepted while the item which received < 0.5 was rejected or revised according to the suggestion made by the experts. The researcher rewrote and adjusted these five questions as well as their alternatives accordingly before trying out with a participating group of 10 student nurses (non-study group) during the pilot study to find degree of difficulty (p) and power of discrimination (r) of the test (see Appendix E).

3.4. The Design of a Materials Evaluation Form (Appendix B)

A materials evaluation form was designed and contained similar items of question in accordance with the questionnaire form used during the needs analysis (Stage 1). This evaluation form used Likert's scale from 5 (strongly agree) to 1 (do not agree at all) in which respondents were asked to rate their satisfactions of both academic and physical aspects of the developed self-instructional materials.

3.5. Experts' Validation of a Materials Evaluation Form (Appendix L)

The materials evaluation form was validated by three experts (two English language assessment specialists and one English language teacher with a doctoral degree). The questionnaire using three scales (-1 means the item is not appropriate; 0 means 'I am not sure'; and +1 means the item is appropriate) on an index of congruence (IOC) was used. The item of questions which received ≥ 0.5 was accepted while the item which received < 0.5 was rejected or revised according to the

suggestion of the expert. The experts found all items of questions acceptable to be used.

3.6. Pilot Study

The listening comprehension test and the lesson unit 1 of the self-instructional materials were tried out with a participating group of 10 student nurses (non-study group) during April, 2012. All of them were the fourth year student nurses who were recruited from 300 participants during the needs analysis based on their willingness and interests.

The researcher initially tried out the 25-minute listening comprehension test with these ten student nurses as a whole group on April 1, 2012 and they were free to complete the test wherever they want to. There was no 'rubrics' for grading in this test so the student received one mark for the correct answer and zero for the wrong answer. Later, the researcher collected all test papers and had all their correct and wrong answers analyzed to find the reliability of the test by using KR-20 of Kuder-Richardson; degree of difficulty (p), and power of discrimination (r). The researcher selected the item of questions that had reliability ≥ 0.6 , degree of difficulty between 0.2 and 0.8, and power of discrimination from 0.2 onward as suggested by Lawthong (2548) to be used for the actual version of the listening comprehension test during the implementation/evaluation phase (the main study).

After the test administration was completed, the researcher distributed the first lesson unit (Unit 1) of the self-instructional materials to this voluntary group of student nurses to study for four weeks. They were allowed to study the self-study materials and complete the lesson anywhere and anytime. On April 30, 2012, the last day of the pilot study, a materials evaluation form was distributed to them to assess

their level of satisfaction and gain some additional suggestions for scoping the specification of academic and physical aspects of the other four units of the self-instructional materials during the revision process in May, 2012. Data gained from the materials evaluation form revealed that, overall, this pilot group of student nurses were satisfied with the developed self-instructional materials and found them appropriate to use for self-study.

Phase II - Materials Implementation and Evaluation

In this research study, the researcher would like to develop the self-instructional materials for the student nurses and to identify whether the developed materials could improve their English listening skills. The one-group pretest-posttest design, therefore, was applied as illustrated in Table 3.8.

Table 3.8: Research Design

Pretest	Treatment	Posttest
O ₁	X	O ₂

O₁ is pretest

X is treatment

O₂ is posttest

Generally, the scores from pretest and posttest were tallied and compared to identify the improvement of English listening skills. However, to find the effectiveness of the developed self-instructional materials against the set criteria of efficiency at $E_1/E_2 = 80/80$, the effectiveness while using the developed self-instructional materials (E_1) was compared with the effectiveness after using the developed self-instructional materials (E_2). Two stages performed during this phase

were implementing the developed self-instructional materials and evaluating their effectiveness.

Stage 4: Implementing the Materials

The revised materials including the listening comprehension test and the self-instructional materials were implemented for eight weeks during June - August, 2012 with 1, 10, and 30 student nurses as suggested by Promwong (2520: 136). Details are presented as follows:

During June 1-7, 2012, the researcher went to the School of Nursing, Faculty of Medicine, Ramathibodi Hospital to give the developed self-instructional materials to student nurses who were not the study group and give them the orientation of how to use the developed self-instructional materials for their self-study. On the other hand, the researcher administered the listening comprehension test (the pretest) and distributed the developed self-instructional materials and the listening comprehension test to the study group of 30 student nurses, giving them the orientation how to use the developed self-instructional materials for their self-study. This process took seven days to complete as the participants did not come as a whole group at the same time.

In addition, the developed self-instructional materials were aimed at helping student nurses enhance more skills of listening in English on their own so they came as a package of self-study book with a CD whose five units possessed contents, activities, and self-tests that reflect the real use of language in the field of nursing. The researcher also introduced all participants “the learner’s contract” which was put at the very beginning of the developed self-instructional materials. This contract was aimed at activating and regulating their self-learning behavior both before and during

their study. Moreover, an additional channel to share opinions and suggestions during their study like Facebook was also introduced.

During June 8 – August 8, 2012, the researcher conducted the implementation process (the main study) by allowing all participants study the developed self-instructional materials themselves. During this process, the researcher was also on-line on the Facebook between 19.00 - 24.00 p.m. almost every day to give some pieces of advice or answer their questions.

During August, 8-14, 2012, the researcher went back to the school of nursing again to administer the listening comprehension test for the non-study group of 11 student nurses and for the study group of 30 student nurses, the listening comprehension test (posttest) was applied to assess their English listening skills after using the developed self-instructional materials. This process took seven days to be completed as the participants did not join the process as a whole group at the same time.

4.1. Participants

Forty one student nurses ranging from the first year to the fourth year at the School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok, in the academic year 2011 was the participants at this stage. They were recruited from 300 participants during the needs analysis stage based on the voluntary basis and the majority of them were the fourth year student nurses.

Purposive sampling to obtain participants

Purposive sampling was employed to obtain participants of the study. The criteria for selecting the subjects for this implementation/evaluation phase that should be noticed are listed as follows:

1. Studying during the first to the fourth year in School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok, in the academic year 2011.

2. Being willing to participate in the study by using the developed self-instructional materials for their self-study.

However, since the recruited participants were already full-loaded with their learning schedules it should be noted that they were likely to possess the characteristic of being industrious and studious for some levels; otherwise, they would not willingly participate in this study.

4.2. Instruments

The developed self-instructional materials (Appendix C)

The developed self-instructional materials were entitled “Listening in English for Nursing Purposes”. Five units inside the materials were constructed with authentic materials such as spoken texts, published materials, and written information from and were written based on the needs of 300 participating student nurses. These five units are as follows:

1. What happened to you?
2. It is more painful!
3. It’s an accident!
4. What dosage am I going to give?
5. I feel relieved!

Features of the developed self-instructional materials were that all of the five units were created with up-to-date written and spoken details and information about nursing and medicine. Some current situations such as the death of a well known pop-star singer like Whitney Houston and the acute heart failure from fast-

food overeating from the website <http://www.breakingnewsenglish.com> were also considered interesting to learn as it was genuine to the students' environment. Moreover, the physical aspects such as printing and lay-out were also attractive and very up-to-date in the way that they were created with an inspiration from the current well known commercially published materials.

Stage 5: Evaluating the developed self-instructional materials

The fifth stage was to evaluate the effectiveness of the developed self-instructional materials. A single group pretest-posttest design was employed to investigate the effectiveness of the developed self-instructional materials (independent variable) on the study group of 30 student nurses' English listening skills (dependent variable 1) and their opinions towards the developed self-instructional materials (dependent variable 2).

5.1. Participants – the same group of participants in stage 4

The researcher adapted the process of evaluating the effectiveness of the instructional materials suggested by Promwong (2520) during this stage by distributing a package of the developed self-instructional materials to 1, 10, and a study group of 30 student nurses respectively. The process is described as follows:

One on one evaluation

The researcher initially distributed a package of the developed self-instructional materials to one participating student nurse who shared similar characteristics as a study group of 30 student nurses on June 1, 2012 at the School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok. The researcher allowed her to manage the study herself for two months. On August 1, 2012, the

researcher administered the listening comprehension test to assess her listening skills after using the developed self-instructional materials.

Small group evaluation

The researcher also distributed a package of developed self-instructional materials to 10 participating student nurses who studied during the first year to the fourth year and shared similar characteristics as a study group of 30 student nurses on June 1, 2012 at the School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok. The researcher allowed them to manage the study themselves for two months. On August 1, 2012, the researcher administered the listening comprehension test to assess their listening skills after using the developed self-instructional materials.

Large group evaluation

As the large group evaluation was made by the study group of 30 student nurses, the process of distributing the developed self-instructional materials and administering the pre-and posttest could be described as follows:

On June 1-7, 2012, the researcher administered the listening comprehension test to the study group of 30 student nurses to assess their English listening skills before using the developed self-instructional materials. The researcher asked them to complete the test in their own room inside the dormitory of nursing school within 26 minutes. For those participating first year student nurses who did not reside in the dormitory, they were invited to complete the test under the dormitory building instead. Later, all 30 student nurses were asked to hand in the test papers to the researcher and receive the developed self-instructional materials to study by themselves until August 8, 2012. During August 8-14, 2012, the researcher went back

to the school again to administer the posttest to assess their listening skills after using the developed self-instructional materials. Also, the researcher distributed them a materials evaluation form to assess their level of satisfaction of the self-instructional materials developed.

5.2. Instruments

After the implementation phase was completed, the effectiveness of the developed self-instructional materials was evaluated. Instruments for evaluating the developed self-instructional materials include a pre-and posttest English listening comprehension test and a materials evaluation form. Each of them is presented as follows:

5.2.1. English Listening Comprehension Test (Appendix D)

The trial listening comprehension test from Stage 3 was used to measure English listening skills of study group of 30 student nurses both before and after using the developed self-instructional materials.

5.2.2. A Materials Evaluation form (Appendix B)

The trial materials evaluation form from Stage 3 was distributed to the study group of 30 student nurses. Each of them was asked to rate both academic aspects and physical aspects of the developed materials. The data was later statistically analyzed by mean (\bar{x}) to indicate their satisfaction level of the academic aspects and the physical aspects of developed self-instructional materials.

5.3. Data Collection of Evaluation Stage

The data collection of the implementation/evaluation stage can be divided into four phases as follows:

5.3.1. Pretest

The paper-based listening comprehension test comprised of 50 items of multiple choice questions was given to the study group of student nurses on the same day of distributing the self-instructional materials (June 1-7, 2012). However, the study group of 30 student nurses did not come to receive the developed self-instructional materials as a whole group in the same time so it took seven days to complete this session. Their pretest scores were compared with those of posttest in order to identify their learning progress after using the developed self-instructional materials.

5.3.2. Self-Study Period

The self-study period of the implementation stage lasted for eight weeks (June 8, - August 8, 2012). During this period, the researcher was also giving some advice and suggestions to the study group of student nurses via facebook's fan-page 'Listening in English for Nursing Purposes' and collecting their scores of all activities to statistically evaluate their learning progress during the evaluating stage.

5.3.3. Posttest

The same form of paper-based listening comprehension test comprised of 50 items of multiple choices questions was distributed to the study group of 30 student nurses. However, they did not come to receive the test as a whole group at the same time so it took seven days to complete this session. The researcher collected the posttest score from all of them on August 14, 2012. The posttest scores were then statistically compared with the pretest score collected during the first week of June, 2012 (see Appendix M).

5.3.4. A Materials Evaluation Form

A materials evaluation form was distributed to all 30 student nurses after they finished their posttest in order to rate their opinions after using the developed self-instructional materials. So, the process was taking place during the same period of distributing the posttest (August 8-14, 2012).

All phases from the above data collection process are presented in Table 3.9.

Table 3.9: Data collection process

Week No.	Data collection process
1 (June 1-7, 2012)	<div style="text-align: center;"> <p>Pretest</p> <ul style="list-style-type: none"> - Listening comprehension test (n = 30) </div> <div style="text-align: center;">↓</div> <div style="text-align: center;"> <p>Collect scores of pretest</p> </div> <div style="text-align: center;">↓</div>
2-9 (June 8 - August 8, 2012)	<div style="text-align: center;"> <p>Self-Study Period</p> </div> <div style="text-align: center;">↓</div> <div style="text-align: center;"> <p>Treatment with the developed self-instructional materials</p> </div> <div style="text-align: center;">↓</div>
10 (August 8-14, 2012)	<div style="text-align: center;"> <p>Posttest</p> <ul style="list-style-type: none"> - Listening comprehension test (n = 30) - Materials evaluation form </div>

5.4. Data Analysis

To verify the hypothesis of the developed self-instructional materials were at a standard criteria 80:80, the standard criteria of efficiency at $E_1/E_2 = 80/80$ was employed (Promwong, 2520: 140). The formula is as follows:

$$E_1 = \frac{\Sigma X_1}{N \times A} \times 100$$

When E_1 is the efficiency of the developed materials
 X_1 is score gained from each end-of-unit test
 A is total score of end-of-unit test
 N is number of students

$$E_2 = \frac{\Sigma X_2}{N \times B} \times 100$$

When E_2 is the efficiency of the learning
 X_2 is score gained from the posttest
 B is total score of the posttest
 N is number of students

Paired sample t-test (Dependent Samples) was also employed to compare the student's mean score before and after using the developed self-instructional materials to see whether there is a significant difference between them (Taweerat, 2530 : 165). In other words, t-test was used to compare the mean scores of the pre-and posttest and to indicate whether participants in the study have higher scores in their posttest of English listening comprehension at a significant level ($p < 0.05$). The formula is as follows:

$$t = \frac{\Sigma D}{\sqrt{\frac{n \Sigma D^2 - (\Sigma D)^2}{n-1}}}$$

When t is t score
 D is difference of each paired score

n is number of paired score

$\sum D$ is total score of D

$\sum D^2$ is total score of D^2

For the results from materials evaluation form, the arithmetic mean or the average score of satisfaction level of both academic aspects and physical aspects of the developed self-instructional materials was applied. Each of the aspects rated 4.51 – 5.00 was ‘strongly agree’, 3.51 – 4.50 was ‘agree’, 2.51 – 3.50 was ‘neutral’, 1.51 – 2.50 was ‘do not agree’, and 1.00 – 1.50 was ‘do not agree at all’.

The formula is as follows:

$$\bar{X} = \frac{\sum_{i=1}^n X_1}{n}$$

When \bar{X} is the average score

$\sum_{i=1}^n X_1$ is total score gained

n is number of students

List of the research instruments used in the study are summarized in Table 3.10.

Table 3.10: List of research instruments

Instruments	Participants	Purpose	Schedule/period	Validation	Analysis
Documentary review	-	To obtain information about skills of English listening for student nurses	At the initial step of the study	-	Content analysis
The validated list of English listening skills for student nurses	The researcher compiled the list of English listening skills for student nurses	To be translated into English listening skills needed	After the analysis of content from documentary review	By experts	Descriptive statistics (IOC)
Questionnaire	300 student nurses of School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok.	To obtain information about participants both their personal information and their needed English listening skills. To develop the specification of SIMS based on the quantitative data gained from the questionnaire.	During April 2011	By experts	Descriptive statistics (mean)
Checklists for experts to validate the sample lesson unit as well as the English listening comprehension test	Three experts were distributed the checklists to evaluate the sample lesson unit as well as the English listening comprehension test	To evaluate the developed self-instructional materials and the listening comprehension test developed	After collecting data from Needs Analysis	By experts	Descriptive statistics (IOC)

Table 3.10: List of research instruments (continued)

Instruments	Participants	Purpose	Schedule/period	Validation	Analysis
A materials evaluation form	10 student nurses (non-study group)	To evaluate the sample lesson unit	At the end of the pilot study	By experts	Descriptive statistics (mean)
	----- The study group of 30 student nurses	----- To evaluate the developed SIMS	----- At the end of materials implementation/evaluation phase		
English Listening Comprehension Test	The study group of 30 student nurses	To measure the students' level of English listening skills before and after using the developed self-instructional materials	Before and after using the developed self-instructional materials	By experts	t-test to compare the scores of pre- and posttest
Self-instructional materials (SIMS) to enhance English listening skills	The researcher designed and developed the Self-Instructional Materials (SIMS) to enhance English listening skills for student nurses	To be used for the materials implementation which is the main study of this research	During the materials implementation (June 8-August 8, 2012)	-	Standard criteria of efficiency at $E_1/E_2 = 80/80$

3.3. Summary

The study consisted of two phases including materials development and materials implementation/evaluation of its effectiveness. The process of materials development was divided into three steps. Step one initiated with the needs analysis with a group of 300 student nurses. Purposive sampling was used to obtain all responses. Based on the validated list from three experts, a questionnaire for assessing needs analysis was designed and distributed to participating 300 student nurses

studying in the first year to the fourth year at School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok, in the academic year 2011 to find out their needs in terms of lacks and wants of English listening materials. Then, contents and materials were constructed based on the findings from analysis of the needs and were validated and evaluated by the experts before conducting a pilot study.

The second phase was materials implementation and evaluation. Forty one student nurses were recruited from 300 participating student nurses based on their willingness and interests. However, 30 of them were the study group during this stage. A single group pre-and posttest design was used to measure these 30 participants' English listening skills after using the developed self-instructional materials and their opinions towards the developed materials were also investigated by means of a materials evaluation form.

To answer the first research question, “What are the needs of English listening skills for student nurses?” two main research instruments i.e. a review of related literature and a questionnaire were employed to conduct the needs analysis. Content analysis was used to analyze the data from literature review and the validation of the experts while descriptive statistics was used to analyze data gained from the questionnaire.

To answer the second research question, “How can self-instructional materials to enhance English listening skills for student nurses be developed?” contents and materials were developed based on information obtained from the needs analysis. Three experts were invited to validate the sample lesson unit's contents and materials while another three experts were invited to validate and evaluate the listening comprehension test. All mentioned instruments were adjusted in response to

the experts' comments and feedbacks from the pilot study. The main study (the implementation/ evaluation phase) was implemented during June 8 –August 8, 2012.

To answer the third research question, “How effective are the developed self-instructional materials?” the English listening comprehension test along with the developed SIMS was used to verify the hypothesis of the developed self-instructional materials at a standard criterion of 80:80. The standard criteria of efficiency at $E_1/E_2 = 80/80$ was applied. Besides, paired sample t-test was also employed to compare the mean scores of the pre-and posttest and to indicate whether the study group of 30 student nurses has higher scores in their posttest at significant level ($p \leq 0.05$).

To answer the fourth research question, “What is the attitude of student nurses towards the developed self-instructional materials?” a materials evaluation form was used to measure the opinions of the participants towards the developed self-instructional materials (SIMS) in terms of academic aspects and physical aspects.

The research results and findings for each research question are presented in Chapter IV.

CHAPTER IV

RESEARCH FINDINGS

4.1. Introduction

The objectives of this study are to investigate the needs of English listening skills of the student nurses, to develop self-instructional materials to enhance listening skills for them, to examine the effectiveness of the developed self-instructional materials, and to study the attitude of the student nurses towards the developed self-instructional materials, the findings of the study according to research questions, therefore, should be presented in this chapter as follows:

Part I, the data from the questionnaire were calculated statistically and interpreted to indicate the needs of student nurses in order to scope the specification of the self-instructional materials (SIMS) in terms of academic aspects and physical aspects. Therefore, this part will respond to research question 1. What are the needs of English listening skills for student nurses?

Part II, the process of translating the data from the needs analysis to materials development and the validation of materials through experts and pilot test were presented. This part will respond to research question 2. How can self-instructional materials to enhance English listening skills for student nurses be developed?

Part III, the data which were calculated and statistically interpreted based on the scores judged by the experts, the scores of unit's self-test, scores of pretest and posttest were presented. In addition, they were tallied and evaluated against the standard criteria $E_1/E_2 = 80:80$. All of the findings respond to research question

3. How effective are the developed self-instructional materials to enhance English listening skills for student nurses?

Part IV, mean scores and standard deviation of the materials evaluation were presented to indicate the attitude of a study group of thirty student nurses towards the developed self-instructional materials. This part will respond to research question

4. What is the attitude of student nurses towards the developed self-instructional materials?

4.2. Part I: Conducting a Needs Analysis to find out the needed English listening skills of the student nurses.

As presented in Table 3.2, steps for conducting the needs analysis of this study are as follows:

1. Identify population and samples
2. Review related literature
3. Gather information about needs/skills of English listening required for student nurses by using a documentary research.
4. Design the research instruments
5. Validate the research instruments
6. Collect data by questionnaire survey of students' needs
7. Analyze the data

Steps 1-5 have already been covered in Chapter II and III. This part then focuses on the data collection of the questionnaire survey with 300 participating student nurses and the analysis of the obtained results in depth.

A questionnaire survey to find out the student nurses' needs

After the validation process, the researcher conducted a questionnaire survey with 300 voluntary student nurses studying during the first year to the fourth year in the School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok. The survey aimed to explore the students' needs and necessities of English listening skills, problems in English listening, as well as wants and expectations of the elements to be included in the self-instructional materials. The results from the survey helped make decision in choosing the needed English listening skills and both academic and physical elements to be applied in the materials. Three hundred copies of the questionnaire were distributed and were collected as the full number of three hundred copies. The information collected from the questionnaire was then coded and analyzed via SPSS program for data processing and presentation. The results are presented as follows:

Table 4.1 and Table 4.2 show general information of the 300 participating student nurses of School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok in terms of their demographic data e.g. gender, length of studying English, and types of materials used to practice listening in English.

Table 4.1: Demographic data of the 300 participating student nurses of the School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok

Gender	Samples	Percent
Female	300	100%
Male	0	0%
Total	300	100%
Length of studying English		
8-11 years	42	14%
12-15 years	132	44%
16-19 years	126	42%
Total	300	100%

Table 4.1 reveals that the respondents are all female (100%). Regarding the length of their education of English, majority of them has studied English between 12 and 15 years (44%).

Table 4.2: Types of materials used to practice listening in English

What type of listening materials used most to practice English listening?	Samples	Percent
• Radio programs	9	3%
• T.V. programs	39	13%
• Movies	72	24%
• Self-study Books + CDs	147	49%
• Conversations with native English speakers or experts in English	33	11%
Total	300	100%
What is your means of practicing English listening?		
• Self-practicing	243	81%
• Taking extra courses in the language institute	57	19%
Total	300	100%

In terms of types of materials used to practice English listening as presented in Table 4.2, most of the student nurses use self-study books with CDs as a means to practice their listening in English (49%), followed by movies (24%), T.V. programs (13%), conversations with native English speakers or experts in English (11%), and the last means chosen is radio programs (3%).

Part 3 of the questionnaire asks the opinion of the student nurses about the necessity of English listening skills. To get such points of view, the student nurses were asked to rate the level of necessity of English listening skills on a five-rating scale from 5 to 1. The item rated 4.51 – 5.00 is interpreted as the highest (the most necessary); 3.51 – 4.50 is the next highest (very necessary); 2.51 – 3.50 is moderate (necessary); 1.51 – 2.50 is low (somewhat necessary); and 0.00 – 1.00 is the lowest (not necessary). The findings are presented in Table 4.3.

Table 4.3: The student nurses' views on the necessity of English listening skills

Views on the necessity of English listening skills		\bar{x}	S.D.	Interpretation
1.	Recognize vocabularies related to the health science.	4.56	0.61	the most necessary
2.	Detect key words such as those identifying topics and main ideas.	4.49	0.77	very necessary
3.	Understand inferred information e.g. speaker's attitude or intention.	4.48	0.72	very necessary
4.	Guess meaning from context.	4.47	0.81	very necessary
5.	Retain chunks of language in short-term memory	4.44	0.68	very necessary
6.	Recognize basic syntactic patterns.	4.33	0.76	very necessary
7.	Detect sentence constituents such as subject, verb, object, and prepositions.	4.30	0.79	very necessary
8.	Recognize reduced forms of words e.g. I'll, I'm gonna	4.27	0.83	very necessary
9.	Recognize typical word-order patterns e.g...., aren't I?, ..., isn't it?	4.26	0.83	very necessary
10.	Recognize stress and rhythm patterns, tone patterns, or intonation contours.	4.26	0.85	very necessary

Table 4.3 reveals that the student nurses found almost every English listening skill very necessary (all of the skills were rated $\bar{x} > 3.51$). However, there is only one English listening skill rated the most necessary among all that is to recognize vocabularies related to the health science ($\bar{x} = 4.56$). The second needed skill is to detect key words such as those identifying topics and main ideas ($\bar{x} = 4.49$). The third is to understand inferred information ($\bar{x} = 4.48$). The fourth needed skill is to guess meaning from context ($\bar{x} = 4.47$). The fifth needed skill is to retain chunks of language in short-term memory ($\bar{x} = 4.44$). The seventh needed skill is to detect sentence constituents such as subject, verb, object, and prepositions ($\bar{x} = 4.30$). The eighth needed skill is to recognize reduced forms of words e.g. I'll, I'm gonna ($\bar{x} = 4.27$). The ninth needed skill is to recognize typical word-order pattern e.g...., aren't I?, ..., isn't it? ($\bar{x} = 4.26$). Finally, the tenth needed skill which was rated equally to the ninth one is to recognize stress and rhythm patterns, tone patterns, or intonation contours ($\bar{x} = 4.26$).

Part 4 of the questionnaire asks the student nurses to rate causes of problems when listening in English. Such causes of problems were derived from two aspects i.e. the student nurses themselves and the learning materials. To get such points of view, the student nurses were asked to rate each item of questions on a five-rating scale from 5 (the most problematic) to 1 (the least problematic). The item receiving scores 4.51 – 5.00 is interpreted as the most problematic; 3.51 – 4.50 is very problematic; 2.51 – 3.50 is moderately problematic, 1.51 – 2.50 is low problematic, and 0.00 – 1.00 is the lowest problematic. The results are presented in Table 4.4.

Table 4.4: Causes of problems when listening in English

Causes of problems		\bar{x}	S.D.	Interpretation
1.	Guessing unknown phrases	3.95	1.00	very problematic
2.	Unfamiliar English accents	3.80	1.05	very problematic
3.	Being lack of listening strategies	3.76	1.08	very problematic
4.	Unfamiliar grammatical English sentences	3.74	0.86	very problematic
5.	Unfamiliar words and expressions	3.72	0.98	very problematic
6.	Having hesitation while listening	3.59	1.10	very problematic
7.	Speed of the speech	3.59	1.00	very problematic
8.	Making prediction what the speakers are talking about	3.58	0.89	very problematic
9.	Summarizing information based on intuition	3.48	0.90	moderately problematic
10.	Unfamiliar topics and contents	3.44	0.95	moderately problematic
11.	Being unfamiliar with hi-technology listening materials e.g. iPod	3.44	1.16	moderately problematic

Table 4.4 reveals that the student nurses found almost every cause of problems very problematic ($\bar{x} = 3.51 - 4.50$) and guessing unknown phrases was rated the highest among all ($\bar{x} = 3.95$). Other causes of problems with lower rating are being unfamiliar with English accents ($\bar{x} = 3.80$) and being lack of listening strategies ($\bar{x} = 3.76$). On the other hand, there are three causes of problems found moderately problematic ($\bar{x} = 2.51 - 3.50$) including summarizing information based on intuition

($\bar{x} = 3.48$), being unfamiliar with the topics and contents ($\bar{x} = 3.44$), and being unfamiliar with hi-technology listening materials ($\bar{x} = 3.44$).

Part 5 of the questionnaire asks the student nurses to rate both academic aspects and physical aspects to be applied in the self-instructional materials on a five-rating scale starting from the highest 5 (the most needed/the most important) to the lowest 1 (the least needed/the least important). The item rated 4.51 – 5.00 is interpreted as the most needed; 3.51 – 4.50 is much needed; 2.51 – 3.50 is needed; 1.51 – 2.50 is less needed; and 0.00 – 1.00 is the least needed. The results are presented in Table 4.5.

Table 4.5: Needs of academic and physical aspects of the self-instructional materials

Needs of Academic Aspects		\bar{x}	S.D.	Interpretation
1.	The language use	4.54	0.58	The most needed
	1.1 The language use is simple, precise, correct, unambiguous and comprehensible	4.58	0.59	The most needed
	1.2 The language and vocabulary use are medical and nursing oriented	4.56	0.67	The most needed
	1.3 The language and vocabulary use appropriate keeping in view of students' background knowledge and experiences	4.51	0.69	The most needed
	1.4 The language use is appropriate for each unit	4.50	0.63	Much needed
2.	Contents	4.45	0.53	Much needed
	2.1 The selected content is up to date	4.52	0.67	The most needed
	2.2 The selected contents are in accordance with backgrounds and experiences of student nurses	4.51	0.72	The most needed
	2.3 The selected contents are not too easy nor too hard compared to backgrounds and experiences of student nurses	4.48	0.59	Much needed
	2.4 Authentic	4.47	0.67	Much needed
	2.5 Visual aids are provided to represent important themes	4.45	0.68	Much needed
	2.6 The selected content is based on the prescribed syllabus	4.41	0.70	Much needed
	2.7 Each unit contains important elements of self-study materials e.g. unit's objectives, introduction, study guide, contents, activities and exercises, pre-and posttest, unit's summary, and unit's solution	4.33	0.71	Much needed
3.	The presentation of contents	4.43	0.59	Much needed
	3.1 Illustrations included in the text help creating interests, stimulus, imagination, and increasing comprehension and retention of information/knowledge	4.47	0.70	Much needed
	3.2 The presentation of content is in accordance with the objectives	4.43	0.64	Much needed
	3.3 The important points of content are highlighted for easy reference	4.42	0.68	Much needed
	3.4 Illustrations have a caption/title and a number for easy reference	4.38	0.66	Much needed
4.	The exercises and activities applied	4.43	0.55	Much needed
	4.1 The applied exercises and activities are in accordance with unit's contents	4.52	0.61	The most needed
	4.2 The applied exercises and activities are in accordance with unit's objectives and listening skills	4.47	0.61	Much needed

	4.3 The applied exercises and activities can motivate learning habits and activate thinking process while listening	4.45	0.64	Much needed
	4.4 The applied exercises and activities can motivate learning habits and activate thinking process after listening	4.44	0.64	Much needed
	4.5 Model answers are provided at the end of each unit	4.39	0.73	Much needed
	4.6 The applied exercises and activities encourage creative thinking while listening	4.38	0.66	Much needed
	4.7 Score table is provided to make a comparison of the score gained	4.32	0.75	Much needed
5.	The organization of contents	4.36	0.56	Much needed
	5.1 Clear and easy to read	4.52	0.63	The most needed
	5.2 In each unit, there is a linkage between the sections and paragraphs	4.45	0.65	Much needed
	5.3 The content is divided into sections and sub-sections and easy to hard	4.38	0.69	Much needed
	5.4 A self-use orientation is provided in the beginning of each unit	4.34	0.71	Much needed
	5.5 The length of each unit is appropriate keeping in view of the theme and title	4.34	0.70	Much needed
	5.6 Each unit, sections, and sub-sections have a clear title and a clear number	4.29	0.78	Much needed
	5.7 Enough space to write comments and answers	4.22	0.78	Much needed
	Needs of Physical Aspects	\bar{x}	S.D.	Interpretation
6.	Quality of sounds recording	4.49	0.63	Much needed
	6.1 Audio scripts are put in accordance with contents inside the materials	4.53	0.64	The most needed
	6.2 Audio scripts are clear and easy to read	4.47	0.66	Much needed
	6.3 Appropriate volume and music	4.47	0.69	Much needed
7.	Size of the materials	4.38	0.75	Much needed
	Materials are easy to carry	4.38	0.75	Much needed
8.	Durability of the materials	4.21	0.72	Much needed
	8.1 The paper used to produce the materials is durable	4.24	0.74	Much needed
	8.2 The cover page is durable	4.22	0.76	Much needed
	8.3 The binding of the book is durable	4.20	0.79	Much needed
	8.4 The CD is durable	4.16	0.80	Much needed
9.	Printing and lay-out	4.13	0.69	Much needed
	9.1 Printing is clear and easy to read	4.24	0.76	Much needed
	9.2 Words and line are aligned properly	4.23	0.76	Much needed
	9.3 The lay-out is effective and eye-catching	4.15	0.78	Much needed
	9.4 Spacing between the lines is proper	4.14	0.78	Much needed
	9.5 The type size for the main text, chapter headings, sub-headings, captions, and exercises are appropriate	4.10	0.77	Much needed
	9.6 The number of pages included in the handbook is clear and easy to be noticed	4.06	0.79	Much needed
	9.7 The design of the cover page is attractive and appealing	3.99	0.83	Much needed

Table 4.5 reveals that the student nurses needed almost every academic aspect and physical aspect to be applied in the self-instructional materials at the level of much needed/very important ($\bar{x} = 3.51 - 4.50$). Concerning needs of academic aspects to be applied in the self-instructional materials, the language use, which was rated as

the most needed level ($\bar{x} = 4.51 - 5.00$), was the highest in the category ($\bar{x} = 4.54$) while the organization of contents was the lowest ($\bar{x} = 4.36$). In terms of needs of physical aspects, quality of sounds recording was rated the highest ($\bar{x} = 4.49$) while printing and lay-out was the aspect rated the lowest of the category ($\bar{x} = 4.13$).

Suggestions

This is an open-ended question. It asks the student nurses to share their ideas of how to develop the self-instructional materials effectively to enhance their English listening skills. As this is open-ended question, the student nurses may or may not provide any answer. Some student nurses may provide more than one suggestion. From those who provided answers to this question, the researcher groups the suggestions using content analysis. The results are demonstrated in Table 4.6.

Table 4.6: Suggestions from the student nurses for the development of the self-instructional materials

Suggestions	Freq	Percent
The university should provide additional English listening courses or extend English class hours	23	7.67%
It is a good idea to have English listening courses specifically for student nurses	11	3.67%
Grammar should be focused in English listening courses	9	3%
Vocabulary should be focused	18	6%
Total	61	20.33%

***Notes: This part is open-ended question and 239 out of 300 respondents did not answer or provide any suggestions. The percentages used in the discussion were calculated from the total number of the respondents (300).**

From Table 4.6, the most suggested aspects for developing the self-instructional materials are providing more English listening courses (7.67%), vocabulary (6.00%), specific English listening courses for student nurses (3.67%), and focusing on grammar in the listening course (3.00%).

To conclude, the information obtained from the questionnaire indicates that student nurses need self-instructional learning materials to practice their English listening skills. Recognizing vocabularies related to the health science is the most needed skill of all. The major problem affecting listening in English is guessing unknown words or phrases. The result of the needed academic and physical aspects shows that all the needed aspects are in demand. This clearly signifies the needs for self-instructional materials to serve their needs and to enhance their English listening skills at the end. Such instructional materials should also focus on vocabulary and grammar as well.

4.3. Part II: Translating Needs Analysis to Materials Development

This part cover steps of translating needs analysis to materials development including

1. Explore theoretical frameworks for materials development
2. Specifying important findings from needs analysis
3. Developing self-instructional materials
4. Designing listening comprehension test and materials evaluation form
5. Validate and evaluate the proposed self-instructional materials and assessment materials by the experts
6. Adjust the materials accordingly
7. Pilot study
8. Readjust the materials

Each step is described as follows:

4.3.1. Explore theoretical frameworks for materials development

Several theoretical frameworks have been explored in order to develop specific frameworks to be used for the materials. Stages in ESP process reality proposed by Dudley-Evans and St. John (2002) and the principles of content-based instruction are chosen to be a basis framework for the development of the materials. Findings from document analysis especially those from English Language Development Center (ELDC) and Canadian English Language Benchmarks Assessment for Nurses (CELBAN) provided points to consider when conducting need analysis. The process of designing instructional modules proposed especially by Promwong (2520) is chosen to be a groundwork for materials design while the Six T's Approach of Stoller&Grabe (1997) are chosen to design a content framework for the materials. In terms of assessment and evaluation, standard criteria of efficiency at $E_1/E_2 = 80:80$ proposed by Promwong (2520) is used to find the effectiveness of the produced materials.

All information discussed above is put in the theoretical framework as illustrated in Figure 4.1.

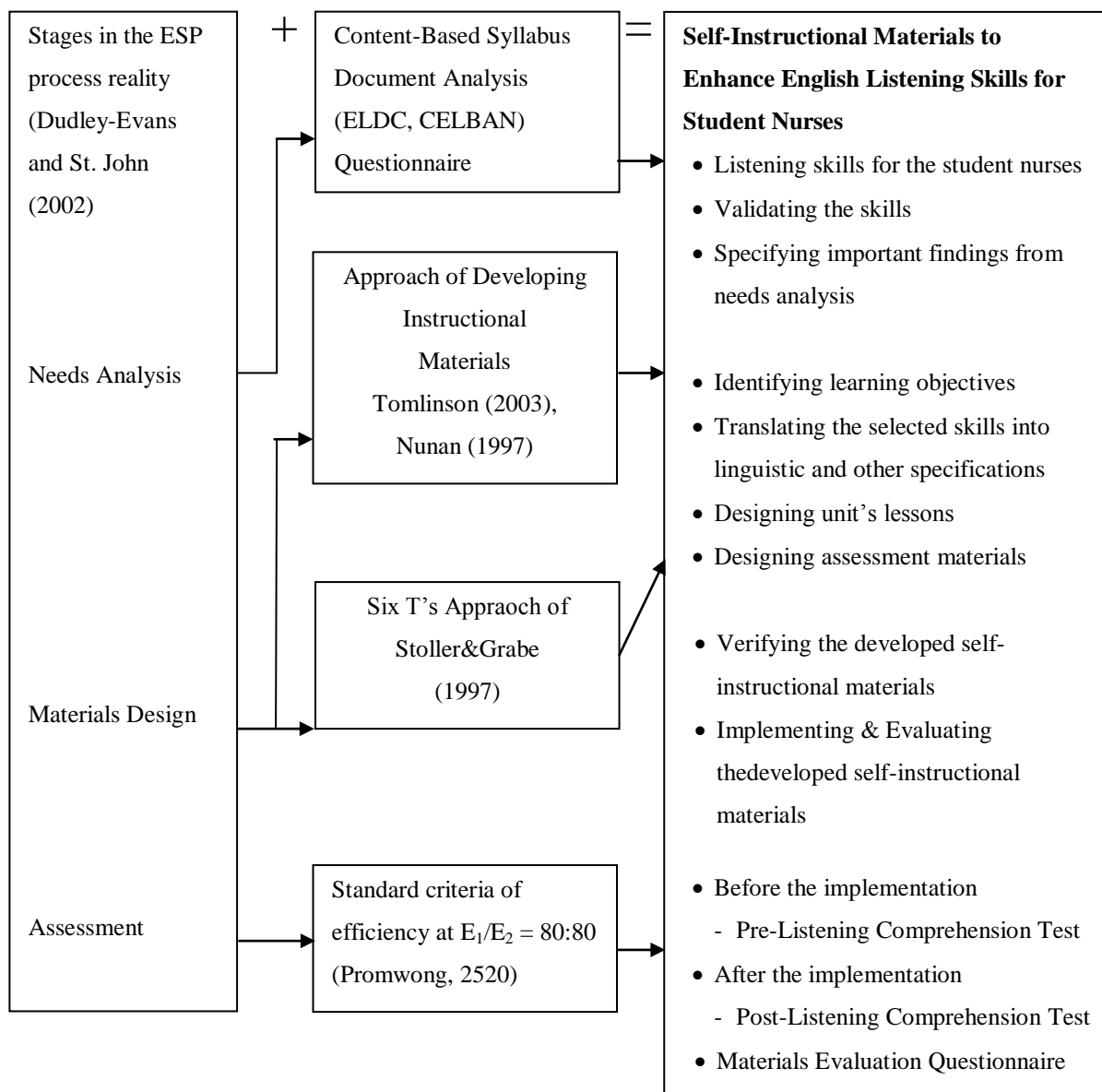


Figure 4.1: Theoretical framework of the study

The Proposed Framework for Materials Development

Self-instructional materials to enhance English listening skills for student nurses were designed based on the framework and theories of ESP and content-based syllabus. The framework of writing the materials was adapted from the process of designing instructional modules by Promwong (2520). Figure 4.2 illustrates the framework for developing the self-instructional materials.

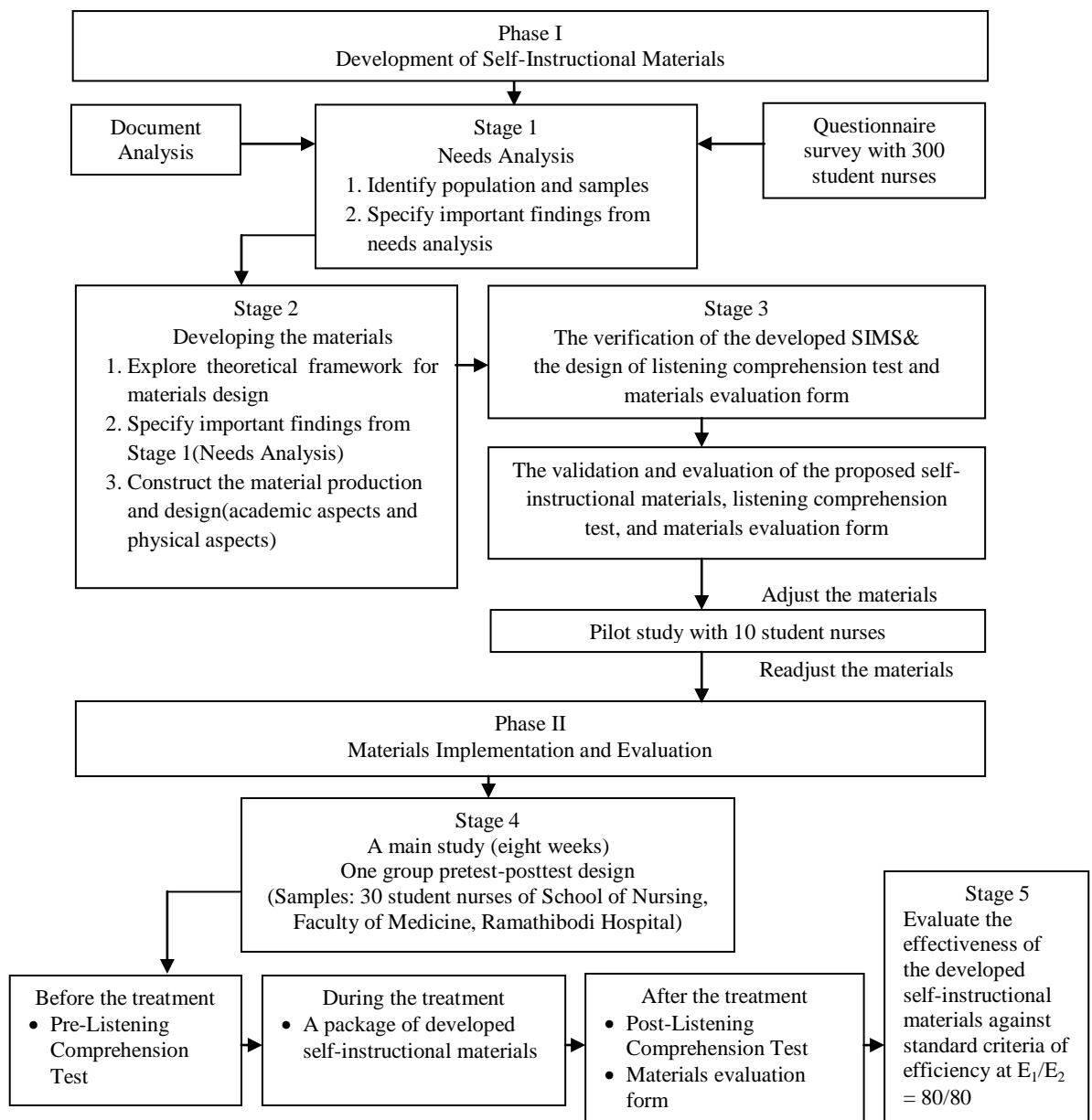


Figure 4.2: Framework for developing the self-instructional materials

Information for developing instructional materials was mainly derived and translated from the needs analysis. Once a package of self-instructional materials has been designed it was verified by experts and used in the pilot study prior to the real implementation. After the implementation/evaluation process was completed, the developed self-instructional materials was examined their effectiveness based on

standard criteria of efficiency at $E_1/E_2 = 80/80$ and the t-test. Besides, the attitude towards the developed self-instructional materials of the study group of student nurses was revealed in terms of mean scores from a materials evaluation form.

4.3.2. Specify Important Findings from Needs Analysis

Main findings are listed as follows:

1. It is obvious that the student nurses apply self-study to be an additional approach for practicing listening English skills besides attending special classes where extra courses of English are provided. In addition, they tend to use self-study book with CD to practice their English listening skills more than other channels or materials since it is easily portable and can be studied anytime and anywhere.

2. For the degree of necessity of English listening skills, 'recognize vocabularies related to the health science' was on the top of the list. However, other listening skills are also considered high/very necessary (all of the skills were rated $\bar{x} > 4.00$). It is, therefore, necessary to give the student nurses a lot of opportunity to practice these listening skills in order to fulfill their needs.

3. As for the degree of causes of problems when listening to English, 'guessing unknown words or phrases' was on the top of the list while 'unfamiliar English accents' and 'being lack of listening strategies' were placed the second ($\bar{x} = 3.80$) and the third ($\bar{x} = 3.76$) respectively.

4. Concerning needs of academic aspects to be applied in the self-instructional materials, all aspects were rated high (all aspects were rated $\bar{x} > 4.00$); the language use was rated the highest ($\bar{x} = 4.54$) while the organization of contents was the lowest ($\bar{x} = 4.36$). In terms of needs of physical aspects, quality of sounds recording was rated the highest ($\bar{x} = 4.49$) while printing and lay-out was the aspect

rated the lowest of the category (\bar{x} = 4.13). Moreover, there were four comments in the open-ended part suggesting that self-instructional materials should focus on grammar and vocabulary. Therefore, besides emphasizing on enhancing English listening skills for the student nurses, the self-instructional materials were also put English grammar and vocabulary to help them learn English and practice listening in English efficiently.

4.3.3. Developing self-instructional materials

The content of self-instructional materials were developed and adapted from several international and Thai sources. The key criteria used to select sources for the materials are relevance and appropriateness. For example,

- Sources are relevant to the unit's objectives.
- Sources are appropriate to the student nurses in terms of age and language difficulties.
- Sources are up-to-date.

Some of the sources needed to be adapted in order to meet the criteria. The researcher also tried to include authentic materials such as real clinic charts and sounds clips from the Internet in the unit. Some materials were tailor-made. The sample unit's contents and materials were verified and evaluated by three experts including two ESP teaching experts and one nursing content specialist.

The framework for designing a lesson unit

Each unit is constructed carefully in the way that self-study plans or guidelines are at first presented in each unit. Goals and objectives, a list of activities, and self-assessment procedures should be clearly stated inside the study plan as well. Later, end-of-unit exercises and answers are presented for self-study. Lockwood (1998)

suggests sequences of a unit inside the self-instructional materials as illustrated in Figure 4.3.

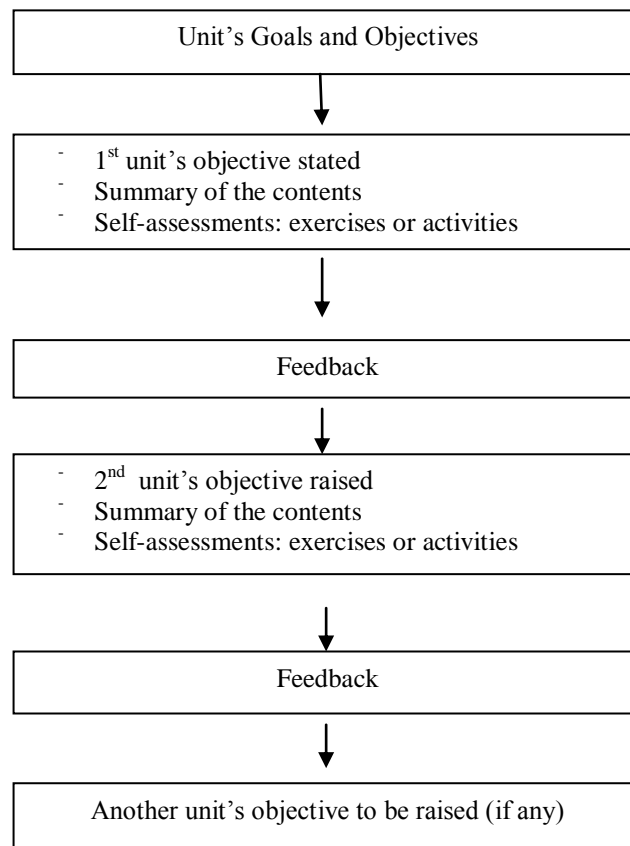


Figure 4.3: The sequences of a unit inside the self-instructional materials (Lockwood, 1998)

Based on the above sequences, each student nurse is directed to move up step by step with support of instructions through learning activities and be able to reach their potential level. The fact that the student nurses were provided with ample opportunities to practice their listening skills at their own paces was the key for success in achieving a particular listening skill. The sequences were adapted in the unit's elements as illustrated in Figure 4.4.

<p>Unit 1: What happened to you?</p> <p>Concepts:</p> <p>1. To understand and recognize the importance of getting patients into the hospital, nursing staffs need to ask, screen patients, and follow the instructions of the physician to provide the most successful treatment.</p> <p>2. To record the symptoms of the patients in medical forms can help the physician and other nursing staffs know the progression of the symptoms and be able to give an appropriate treatment for the patients.</p>	
<p>Objectives</p> <ol style="list-style-type: none"> 1. Record general information. 2. Acknowledge general examination and record vital sign. 3. Use The Past Simple and The Past Continuous to describe past events. 	<p>Listening Skills</p> <ul style="list-style-type: none"> • Recognize vocabularies related to the health science • Retain chunks of language in short-term memory • Recognize typical word-order patterns e.g. <i>so long!</i>, or <i>I couldn't agree more</i> • Detect key words, such as those identifying topics and main ideas • Recognize basic syntactic patterns.
<p>Tasks/ Activities</p> <ol style="list-style-type: none"> 1. Do the pretest to assess your prior listening skills before starting the unit. 2. Self-study the unit's materials. 3. Listen to the CD. 4. Do the unit's exercises and check the answers. 5. Do the posttest to assess your listening skills. 6. Self-assess unit's objectives in the checklist provided. 	<p>Evaluation</p> <ol style="list-style-type: none"> 1. Assess from the scores made in the pretest and the posttest. 2. Assess from the answers made in unit's activities. 3. Assess from the listening comprehension test.

Figure 4.4: Adaptation of Lockwood's sequences of a unit in the developed self-instructional materials

4.3.4. Designing the listening comprehension test and a materials evaluation form

(The process of designing the listening comprehension test and a materials evaluation form was already mentioned in Chapter III)

4.3.5. The validation and evaluation of the proposed lesson unit and assessment materials by the experts

After the lesson unit, the listening comprehension test, and materials evaluation form were designed, nine experts in the field were invited to validate and evaluate the proposed materials.

To validate and evaluate the self-instructional materials, three experts were asked to use the IOC questionnaire called ‘The checklist for the experts to validate the sample lesson unit of self-instructional materials adapted from ‘Evaluation Criteria for Preparation and Evaluation of Self-Instructional Materials’ (Kumar, n.d.)(see Appendix G).

Overall, all of the listed criteria were rated with the mean score greater than 0.5 which was set as the cut-off score to pass the evaluation. The lowest mean is 0.33 was given to criterion no. 5.5 Activities and exercises support the development of English listening skills for students after listening and criterion no. 9.1 The spoken voice and tape scripts are clear (see Appendix H).

The researcher, then, adjusted the activities and exercises of the developed materials accordingly by putting more attractive pictures and modifying the exercises to be more challenging. For the unclear spoken voices of the CD, the researcher solved this acoustic problem by rerecording the CD with another sound recorder.

Additional comments and suggestions from the experts

According to the results of the evaluation, it can be said that the proposed self-instructional materials were approved by the three experts (E). However, some comments and suggestions are also provided as listed as follows:

E2: The spoken voice is not clear enough as some outside noise still disturb.

E3: Activities and exercises support the development of English listening skills for students after listening should be more challenging in order to maximize individual learning outcome.

To validate and evaluate the listening comprehension test, the other three experts were asked to use the IOC questionnaire called ‘The checklist for the experts to validate the listening comprehension test’ (see Appendix I). The item of questions which receives ≥ 0.5 was accepted while the item which receives < 0.5 was rejected or revised according to the suggestion made by the experts (see Appendix J).

From this validation process, there were 40 items of questions which received ≥ 0.5 which was set as the cut-off score to pass the evaluation including 1, 2, 3, 4, 5, 6.1, 6.2, 6.3, 6.4, 6.6, 6.7, 7.1, 7.2, 7.3, 8, 9, 10, 11.1, 11.2, 11.3, 11.4, 12.1, 12.3, 12.4, and 12.5. Meanwhile, there were 15 items of questions which received < 0.5 including 6.5, 6.8, 6.9, 6.10, 12.2, 13.1, 13.2, 13.3, 13.4, 13.5, 13.6, 13.7, 13.8, 13.9, and 13.10. The researcher has rewritten and adjusted these fifteen questions as well as their alternatives according to the experts’ suggestions before the trial with the student nurses.

Additional comments and suggestions from the experts

According to the results of the evaluation, it can be said that the proposed listening comprehension test was approved by the three experts (E). One of the experts gave an additional comment –“The items of question are well-constructed.” However, a few suggestions are provided as follows:

E4: “The writing of example answers should be added”

E5: “Some items should be rewritten to be more challenging”

To validate and evaluate materials evaluation form, the other three experts were asked to use the IOC questionnaire called ‘The checklist for the experts to validate a materials evaluation form’ (see Appendix K) adapted from ‘Evaluation Criteria for Preparation and Evaluation of Self-Instructional Materials’ (Kumar, n.d.).

Overall, all of the listed criteria were rated with the mean score greater than 0.5 which was set as the cut-off score to pass the evaluation (see Appendix L). Therefore, a materials evaluation form is appropriate to use.

4.3.6. Adjusting all proposed materials

Some adjustment was done based on the experts’ comments and suggestions such as designing more challenging activities for the student nurses to practice more listening skills and rerecording the narrative voice for better understanding and hearing. As for the listening comprehension test, example answers were provided and some questions were made for more challenging.

4.3.7. The pilot study

The pilot study is aimed to ascertain that the proposed self-instructional materials can be effectively used for the purpose of this study. Listening comprehension test and a sample lesson unit (Unit 1) on the topic of hospital admission was piloted with ten voluntary student nurses at the School of Nursing, Faculty of Medicine, Ramathibodi Hospital for four weeks during April, 2012. They shared similar characteristics to the study group of 30 student nurses during the implementation/evaluation phase.

On April 30, 2012, the researcher distributed a materials evaluation form to these ten student nurses to rate their level of satisfaction and to gain some

suggestions from them via Likert's scale of 5 to 1 adapted from Sunsom (2001: 76).

The item rated 4.51 – 5.00 is interpreted as strongly agree; 3.51 – 4.50 is agree; 2.51 – 3.50 is somewhat agree; 1.51 – 2.50 is disagree; and 1.00 – 1.50 is strongly disagree.

Mean scores and standard deviations of this questionnaire are presented in Table 4.7.

Table 4.7: The student nurses' evaluation of the piloted lesson unit

Criteria for evaluating the sample lesson unit	N	Min	Max	\bar{x}	S.D.	Interpretation
1. Content						
1.2 Content is aligned to learning aims and/or learning objectives.	10	5.00	5.00	5.00	0.00%	strongly agree
1.3 Each unit has goals and objectives, introduction, self-study guide, contents, self-assessment, summary, model answers for activities and exercises.	10	3.00	5.00	4.00	0.81%	agree
1.4 Content is in accordance with backgrounds and experiences of the students e.g. medical and nursing.	10	3.00	5.00	4.00	0.81%	agree
1.5 Content is appropriate keeping in view of students' background knowledge and experiences.	10	3.00	5.00	4.00	0.81%	agree
1.6 Content is culled from authentic sources.	10	4.00	5.00	4.30	0.48%	agree
1.7 The selected content is up-to-date.	10	3.00	5.00	4.00	0.81%	agree
1.8 Visual aids are provided to represent important themes of each unit.	10	4.00	5.00	4.30	0.48%	agree
2. The organization of content						
2.1 Precise and easy to understand.	10	3.00	5.00	3.80	0.92%	agree
2.2 The content is divided into sections and sub-sections.	10	3.00	5.00	4.00	0.82%	agree
2.3 Clear numbering.	10	5.00	5.00	5.00	0.00%	strongly agree
2.4 There is a link between sections and units in each unit.	10	5.00	5.00	5.00	0.00%	strongly agree
2.5 The length of each unit is appropriate keeping in view of the theme and title.	10	2.00	5.00	3.60	0.97%	agree
2.6 A self-use orientation is provided in the beginning of each unit.	10	3.00	5.00	4.00	0.82%	agree
2.7 Enough space is provided for writing useful information or the answers to self-assessment questions.	10	3.00	5.00	4.00	0.82%	agree
3. The presentation of content						
3.1 The presentation of content is in accordance with learning objectives.	10	2.00	5.00	4.30	1.06%	agree
3.2 The important points of content are highlighted for easy references.	10	2.00	5.00	3.70	0.95%	agree
3.3 Illustrations included in the text are clear and help create interests and also increase comprehension and retention of information / knowledge.	10	3.00	5.00	3.90	0.74%	agree
3.4 References are given wherever appropriate to the use of supporting media.	10	3.00	5.00	4.00	0.82%	agree

4. The language use						
4.1 The language use is simple, precise, correct, unambiguous, and comprehensible.	10	4.00	5.00	4.40	0.52%	agree
4.2 The language use is appropriate to activities and units.	10	2.00	5.00	3.90	1.10%	agree
4.3 The vocabulary and expression use is relevant to students' background knowledge and experiences.	10	4.00	5.00	4.20	0.42%	agree
4.4 The vocabulary and expression in the texts is commonly used in the field of medical and nursing.	10	3.00	5.00	4.10	0.74%	agree
5. The self assessments and activities applied						
5.1 Self assessments and activities are appropriate to unit objectives and listening skills.	10	4.00	5.00	4.20	0.42%	agree
5.2 Texts in self assessment and activities are appropriate to unit contents.	10	4.00	5.00	4.40	0.52%	agree
5.3 Activities are included in the text to promote interests, comprehension, and retention of information/knowledge.	10	3.00	5.00	4.10	0.74%	agree
5.4 Activities and self assessments engage students in critical and creative thinking while listening.	10	3.00	5.00	4.10	0.74%	agree
5.5 Activities and exercises support the development of English listening skills for students after listening.	10	3.00	5.00	4.10	0.74%	agree
5.6 Model answers are provided at the end of each unit.	10	4.00	5.00	4.50	0.53%	agree
5.7 Scoring rubrics are provided for students.	10	4.00	5.00	4.50	0.53%	agree
6. The printing and layout						
6.1 The design of the cover page is attractive and appealing.	10	3.00	5.00	3.80	0.92%	agree
6.2 The font size of the main text, chapter headings, sub-headings, captions, exercises, etc., is appropriate.	10	3.00	5.00	4.00	0.82%	agree
6.3 The layout is appropriate for reading.	10	5.00	5.00	5.00	0.00%	strongly agree
6.4 The number of pages included in the handbook is clear and easy to be noticed.	10	3.00	5.00	4.00	0.82%	agree
6.5 Spacing between the lines is proper.	10	2.00	5.00	3.60	0.97%	agree
6.6 Words and lines are aligned properly.	10	3.00	5.00	4.00	0.82%	agree
6.7 Printing is clear and easy to read.	10	3.00	5.00	4.00	0.82%	agree
7. Durability						
7.1 The binding of the book is durable.	10	3.00	5.00	4.20	0.63%	agree
7.2 The cover page is durable.	10	3.00	5.00	4.20	0.63%	agree
7.3 The paper used to produce the materials is durable.	10	3.00	5.00	3.80	0.92%	agree
7.4 The cassette tape or CD is durable.	10	3.00	5.00	3.80	0.92%	agree
8. Size of the materials						
The size of the materials is appropriate and user friendly.	10	4.00	5.00	4.40	0.52%	agree
9. The quality of sounds recording						
9.1 The spoken voice and tape scripts are clear.	10	2.00	5.00	3.70	0.95%	agree
9.2 The spoken voice and tape scripts are accurately put according to unit contents and activities.	10	5.00	5.00	5.00	0.00%	strongly agree
9.3 Background music is clear with appropriate volume.	10	3.00	5.00	4.20	0.63%	agree

Table 4.7 shows that overall the student nurses were satisfied with the pilot lesson unit as every criterion was rated above 3.50. In addition, they strongly agreed that contents were aligned to learning aims and/or learning objectives, the numbering was clear, there was a link between sections and units in each unit, the layout was appropriate for reading, and the spoken voice and tape scripts were accurately put according to unit contents and activities ($\bar{x}= 5.00$). In the open-ended part which asks the student nurses to write additional comments and suggestions, seven of them mentioned that the sample lesson unit was useful, practical, and necessary for their future career.

Later, the researcher tried out the listening comprehension test with this group of the student nurses. There was no 'rubrics' for grading in this test so the student received one mark for the correct answer and zero for the wrong answer. The researcher had their scores analyzed to find the reliability of the test by using KR-20 of Kuder-Richardson, degree of difficulty (p) and power of discrimination (r). The question items that have reliability ≥ 0.6 , degree of difficulty between 0.2 and 0.8, and power of discrimination ≥ 0.2 is considered effective to be used during the implementation/evaluation phase as suggested by Lawthong (2548). The items of questions which had degree of difficulty and power of discrimination as required above were 1, 2, 3, 4, 5, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 7.1, 7.2, 7.3, 8, 9, 10, 11.1, 11.2, 11.3, 11.4, 12.1, 12.2, 12.3, 12.4 and 12.5. On the other hand, the item of questions which had degree of difficulty and power of discrimination lower or higher than above requirement were 13.1 – 13.10. The researcher had these ten items of questions omitted as their questions and alternatives were not justified. The item analysis revealed that the test had reliability 0.660, degree of difficulty (p) 0.577, and

power of discrimination (r) 0.282. Therefore, the questions and the answers of the listening comprehension test were appropriate to use (see Appendix E).

4.3.8. Readjust the listening test and the self-instructional materials

Based on the findings gathered from the pilot study, the self-instructional materials and the listening comprehension test were readjusted accordingly. For instance, the researcher rerecorded the narrative voice of the CD for better understanding and also rearranged the spacing between the lines of the piloted unit and the rest for easy reading. Finally, the self-instructional materials came out as a package of self-study book with a CD whose five units has had contents, activities, and self-tests that could reflect the real use of language in the field of nursing. The learner's contract was also applied inside the developed self-instructional materials. This contract was aimed at activating and regulating the participating student nurses' self-learning behavior both before and during the course.

And for the listening comprehension test, the researcher needed to cut down some items of questions since they appear to be too difficult for the student nurses. In addition, the researcher simplified the question and provided sample answers. Finally, the listening comprehension test contained 30 items of questions in three parts (50 marks); part A, B, and C and took approximately 26 minutes to complete. It was composed of short conversations, long conversations, and monologues in multinational accents that the test takers were instructed to select the best answer from multiple-choice questions.

4.4. Part III: Materials Implementation and Evaluation

4.4.1. Materials Implementation

All trial materials including the listening comprehension test and the self-instructional materials were offered to one, ten, and the study group of thirty student nurses of the School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok for conducting the main study during June – August, 2012.

The researcher administered the listening comprehension test and distributed the developed self-instructional materials to the study group of thirty student nurses. All participants during this phase were given an orientation of how to use the developed self-instructional materials for their self-study and were also suggested the on-line social medium ‘Facebook’ to share their opinions during these eight weeks to others so that the real reflection of using the developed self-instructional materials could exist.

Meanwhile, the researcher has also participated in their learning by giving some pieces of advices and answering questions from the participants in Facebook during 19.00 p.m. to 24.00 p.m. In addition, the study group of thirty student nurses was also asked to rate their opinions after using the developed self-instructional materials to find the level of their satisfaction.

4.4.2. Materials Evaluation

Hypothesis 1: The developed self-instructional materials are at standard criteria of efficiency at $E_1/E_2 = 80:80$ (Promwong, 2520).

An analysis of effectiveness of the developed self-instructional materials using standard criteria of efficiency at $E_1/E_2 = 80:80$ with one student nurse

(one-on-one evaluation), ten student nurses (small group evaluation), and thirty student nurses (large group evaluation) is presented in Table 4.8 – 4.10 as follows:

Table 4.8: Scores of end-of-unit test made by one student nurse (one-on-one evaluation)

No. of student	Score of end-of-unit test					Total score (60)	Posttest score (Listening Comprehension) (50)
	1	2	3	4	5		
	(15)	(15)	(10)	(10)	(10)		
1.	12	13	9	8	9	51	45
					(%)	85.00	90.00

Table 4.8 shows that the student nurse made 51 marks (85.00%) out of the total score of end-of-unit test (60 marks) and also 45 marks (90.00%) out of 50 marks of listening comprehension test. These numbers indicate that the effectiveness of the developed self-instructional materials based on one-on-one evaluation is 85.00/90.00 and is higher than the set criteria of efficiency at $E_1/E_2 = 80:80$.

Table 4.9: Scores of end-of-unit test made by ten student nurses (small group evaluation)

No. of student	Score of end-of-unit test					Total score (60)	Posttest score (Listening Comprehension) (50)
	1	2	3	4	5		
	(15)	(15)	(10)	(10)	(10)		
1.	12	13	8	8	9	50	45
2.	11	13	8	8	8	48	47
3.	12	12	8	9	8	49	49
4.	13	12	8	7	8	48	49
5.	12	13	7	8	7	47	46
6.	14	13	9	8	8	52	48
7.	12	12	8	7	8	47	44
8.	13	13	9	8	8	51	48
9.	13	12	7	8	9	49	47
10.	11	13	8	8	8	48	47
					Total score	489	470
					%	81.50	94.00

Table 4.9 shows that ten student nurses have made 489 marks (81.50%) out of the total score of end-of-unit test (600 marks) and also 470 marks

(94.00%) out of 500 marks of listening comprehension test. These numbers indicate that the effectiveness of the developed self-instructional materials based on small group evaluation is 81.50/94.00 and is higher than the set criteria of efficiency at $E_1/E_2 = 80:80$.

Table 4.10: Scores of end of unit's test made by thirty student nurses (large group evaluation)

No. of student	Score of end-of-unit test					Total score (60)	Posttest score (Listening Comprehension) (50)
	1 (15)	2 (15)	3 (10)	4 (10)	5 (10)		
1.	13	13	9	8	9	52	44
2.	12	13	8	8	8	49	46
3.	13	13	8	9	8	51	42
4.	13	13	8	9	9	52	44
5.	12	13	8	7	9	49	45
6.	13	14	8	8	8	51	42
7.	12	13	8	9	8	50	45
8.	14	13	8	8	8	51	44
9.	13	12	8	8	8	49	46
10.	13	12	8	8	8	49	42
11.	12	13	8	8	9	50	44
12.	13	12	8	9	9	51	45
13.	13	13	9	8	8	51	42
14.	12	13	8	8	9	50	43
15.	12	13	8	9	9	51	44
16.	13	13	8	8	8	50	44
17.	13	13	9	8	9	52	46
18.	13	13	8	8	8	50	44
19.	14	13	9	9	8	53	46
20.	13	13	8	9	8	51	49
21.	13	13	9	8	9	52	41
22.	12	12	9	8	9	50	46
23.	12	13	9	8	8	50	45
24.	13	12	9	8	8	50	45
25.	12	14	9	8	8	51	43
26.	13	13	8	9	8	51	43
27.	13	13	8	9	8	51	45
28.	14	12	8	8	8	50	42
29.	13	13	8	9	8	51	42
30.	14	14	9	9	9	55	47
Total score						1,523	1,326
%						84.61	88.40

Table 4.10 shows that the study group of student nurses made 1,523 marks (84.61%) out of the total score of end-of-unit test (1,800 marks) and also 1,326

marks (88.40%) out of 1,500 marks of listening comprehension test. These numbers indicate that the effectiveness of the developed self-instructional materials based on small group evaluation is 84.61/88.40 and is higher than the set criteria of efficiency at $E_1/E_2 = 80:80$.

Effectiveness of the developed self-instructional materials among each group of participating student nurses during this implementation/evaluation phase is presented in Table 4.11.

Table 4.11: Effectiveness of the developed self-instructional materials among each group of participating student nurses during the implementation/evaluation phase

No. of student		Score of end-of-unit test (E_1)	Posttest score (<i>Listening Comprehension</i>) (E_2)	Effectiveness of the developed SIMS (E_1/E_2)
1	Total score	$\Sigma x = 60$	$50 \times 1 = 50$	
	Accumulative score	51 (85.00%)	45 (90.00%)	85.00/90.00
10	Total score	$\Sigma x = 600$	470	
	Accumulative score	489 (81.50%)	47 (94.00%)	81.50/94.00
30	Total score	$\Sigma x = 1800$	1326	
	Accumulative score	1,523 (84.61%)	44.2 (88.40%)	84.61/88.40

From Table 4.14, the result of effectiveness by one-on-one evaluation (85.00/90.00), small group evaluation (81.50/94.00), and large group evaluation (84.61/88.40) shows that the developed self-instructional materials had an effectiveness score higher than the criteria of efficiency $E_1/E_2 = 80:80$ and they could enhance English listening skills of the student nurses. Therefore, the hypothesis 1 'The developed self-instructional materials are at a standard criteria of efficiency at $E_1/E_2 = 80:80$ ' was accepted.

Hypothesis 2: The English posttest scores are significantly higher than the pretest scores ($p \leq 0.05$).

Thirty student nurses (large group evaluation) were pre-and post-tested their English listening skills to indicate their learning progression after using the developed self-instructional materials. Their scores of the listening comprehension test were presented in Table 4.12.

Table 4.12: Difference of the listening comprehension test scores

No. of student	Score of the test		Difference (D)	No. of student	Score of the test		Difference (D)
	Pretest (50)	Posttest (50)			Before (50)	After (50)	
1.	46	44	-2	16.	39	44	5
2.	41	46	5	17.	40	46	6
3.	43	42	-1	18.	42	44	2
4.	37	44	7	19.	37	46	9
5.	38	45	7	20.	41	49	8
6.	44	42	-2	21.	38	41	3
7.	42	45	3	22.	44	46	2
8.	45	44	-1	23.	44	45	1
9.	39	46	7	24.	43	45	2
10.	38	42	4	25.	42	43	1
11.	36	44	8	26.	43	43	0
12.	41	45	4	27.	44	45	1
13.	38	42	4	28.	42	42	0
14.	40	43	3	29.	43	42	-1
15.	41	44	3	30.	45	47	2

For statistical measurements, paired sample t-test was employed to compare the student's test scores before and after using the developed self-instructional materials and to see whether there is a significant difference between them (Taweerat, 2543). The results from t-test are presented in Table 4.13.

Table 4.13: Paired samples t-test scores

Pretest		Posttest		\bar{D}	S.D. (\bar{D})	t_{cal}	Sig
\bar{x}	S.D.	\bar{x}	S.D.				
41.20	2.72	44.20	1.80	3.00	3.14	5.23*	.00

* $p \leq 0.05$

As mentioned earlier that the majority of the participants during this implementation/evaluation phase were fourth year student nurses whom were recruited based on the voluntary basis, they, therefore, seemed to be interested in learning English and carried some positive attitudes for participating in the study. Therefore, their English education background together with their willingness to participate in the study could definitely result in having high scores.

Table 4.13 reveals that there was an improvement in the student nurses' posttest scores (\bar{x} = 44.20) compared with those of the pretest (\bar{x} = 41.20). Though mean scores of both pretest and posttest are relatively high, the standard deviation has measured how spread out of the score is among this study group of student nurses. Standard deviation of the pretest scores (S.D. =2.72) which is higher than that of the posttest (S.D. = 1.80) signifies that the student nurses, in general, made high scores in the pretest. So, the variability or the spread of the student nurses with high pretest scores was wider than those with the posttest scores. They, therefore, did not possess English listening skill at about the same level.

However, after the developed self-instructional material was implemented with this study group, their mean scores of the posttest were higher (\bar{x} = 44.20) but the variability or the spread of the posttest scores became narrower (S.D. = 1.80). This situation clearly shows that after using the developed self-instructional materials, the student nurses, in general, made higher scores in the posttest as well as improved their English listening skills at about the same level.

Moreover, the results from t-test indicate that the study group of student nurses had higher scores of listening comprehension test after using the developed self-instructional materials at significance level 0.00. Therefore, hypothesis

2 ‘The English posttest scores are significantly higher than the pretest score ($p \leq 0.05$)’ was accepted.

4.5. Part IV: Attitudes towards the developed self-instructional materials

Another affective aspect to evaluate the effectiveness of the developed self-instructional materials is to study the student nurses’ opinions towards the developed self-instructional materials in terms of their satisfaction, its usefulness, and its practicality through the use of materials evaluation questionnaire. Thirty student nurses joined this study during June – August, 2012 and were distributed a materials evaluation form to assess their level of satisfaction and to gain some suggestions from them. This materials evaluation form was adapted from ‘Evaluation Criteria for Preparation and Evaluation of Self-Instructional Materials’ (Kumar, n.d.) and Likert’s scale of 1 to 5 adapted from Sunsom (2001: 76) is used as follows:

4.51 – 5.00 = strongly agree

3.51 – 4.50 = agree

2.51 – 3.50 = neutral

1.51 – 2.50 = do not agree

1.00 – 1.50 = do not agree at all

Hypothesis 3: The student nurses have a positive attitude towards the developed self-instructional materials when the criterion to assess receives $\bar{x} > 3.50$. Information of materials evaluation survey is presented in Table 4.14.

Table 4.14: The results of the materials evaluation survey

Criteria for evaluating the developed self-instructional materials	N	Min	Max	\bar{x}	S.D.	Interpretation
1. Content						
1.1 Content is aligned to learning aims and/or learning objectives.	30	5.00	5.00	5.00	0.00%	strongly agree
1.2 Each unit has goals and objectives, introduction, self-study guide, contents, self-assessment, summary, model answers for activities and exercises.	30	5.00	5.00	5.00	0.00%	strongly agree
1.3 Content is in accordance with backgrounds and experiences of the students e.g. medical and nursing.	30	5.00	5.00	5.00	0.00%	strongly agree
1.4 Content is appropriate keeping in view of students' background knowledge and experiences.	30	5.00	5.00	5.00	0.00%	strongly agree
1.5 Content is culled from authentic sources.	30	5.00	5.00	5.00	0.00%	strongly agree
1.6 The selected content is up-to-date.	30	5.00	5.00	5.00	0.00%	strongly agree
1.7 Visual aids are provided to represent important themes of each unit.	30	5.00	5.00	5.00	0.00%	strongly agree
2. The organization of content						
2.1 Precise and easy to understand.	30	5.00	5.00	5.00	0.00%	strongly agree
2.2 The content is divided into sections and sub-sections.	30	5.00	5.00	5.00	0.00%	strongly agree
2.3 Clear numbering.	30	4.00	5.00	4.53	0.51%	strongly agree
2.4 There is a link between sections and units in each unit.	30	3.00	5.00	3.83	0.83%	agree
2.5 The length of each unit is appropriate keeping in view of the theme and title.	30	3.00	5.00	3.87	0.82%	agree
2.6 A self-use orientation is provided in the beginning of each unit.	30	4.00	4.00	4.00	0.00%	agree
2.7 Enough space is provided for writing useful information or the answers to self-assessment questions.	30	3.00	5.00	4.13	0.68%	agree
3. The presentation of content						
3.1 The presentation of content is in accordance with learning objectives.	30	3.00	4.00	3.73	0.45%	agree
3.2 The important points of content are highlighted for easy references.	30	4.00	5.00	4.53	0.51%	strongly agree
3.3 Illustrations included in the text are clear and help create interests and also increase comprehension and retention of information / knowledge.	30	3.00	5.00	3.83	0.83%	agree
3.4 References are given wherever appropriate to the use of supporting media.	30	4.00	5.00	4.53	0.51%	strongly agree
4. The language use						
4.1 The language use is simple, precise, correct, unambiguous, and comprehensible.	30	5.00	5.00	5.00	0.00%	strongly agree
4.2 The language use is appropriate to activities and units.	30	3.00	5.00	3.57	0.68%	agree
4.3 The vocabulary and expression use is relevant to students' background knowledge and experiences.	30	5.00	5.00	5.00	0.00%	strongly agree

4.4 The vocabulary and expression in the texts is commonly used in the field of medical and nursing.	30	4.00	5.00	4.53	0.51%	strongly agree
5. The self assessments and activities applied						
5.1 Self assessments and activities are appropriate to unit objectives and listening skills.	30	4.00	5.00	4.53	0.51%	strongly agree
5.2 Texts in self assessment and activities are appropriate to unit contents.	30	4.00	5.00	4.60	0.49%	strongly agree
5.3 Activities are included in the text to promote interests, comprehension, and retention of information/knowledge.	30	3.00	5.00	4.37	0.67%	agree
5.4 Activities and self assessments engage students in critical and creative thinking while listening.	30	5.00	5.00	5.00	0.00%	strongly agree
5.5 Activities and exercises support the development of English listening skills for students after listening.	30	5.00	5.00	5.00	0.00%	strongly agree
5.6 Model answers are provided at the end of each unit.	30	5.00	5.00	5.00	0.00%	strongly agree
5.7 Scoring rubrics are provided for students.	30	3.00	5.00	4.37	0.67%	agree
6. The printing and layout						
6.1 The design of the cover page is attractive and appealing.	30	5.00	5.00	5.00	0.00%	strongly agree
6.2 The font size of the main text, chapter headings, sub-headings, captions, exercises, etc., is appropriate.	30	5.00	5.00	5.00	0.00%	strongly agree
6.3 The layout is appropriate for reading.	30	5.00	5.00	5.00	0.00%	strongly agree
6.4 The number of pages included in the handbook is clear and easy to be noticed.	30	3.00	4.00	3.73	0.45%	agree
6.5 Spacing between the lines is proper.	30	4.00	5.00	4.53	0.51%	strongly agree
6.6 Words and lines are aligned properly.	30	3.00	5.00	3.83	0.83%	agree
6.7 Printing is clear and easy to read.	30	4.00	5.00	4.53	0.51%	strongly agree
7. Durability						
7.1 The binding of the book is durable.	30	5.00	5.00	5.00	0.00%	strongly agree
7.2 The cover page is durable.	30	5.00	5.00	5.00	0.00%	strongly agree
7.3 The paper used to produce the materials is durable.	30	5.00	5.00	5.00	0.00%	strongly agree
7.4 The cassette tape or CD is durable.	30	4.00	5.00	4.33	0.48%	agree
8. Size of the materials						
The size of the materials is appropriate and user friendly.	30	4.00	5.00	4.33	0.48%	agree
9. The quality of sounds recording						
9.1 The spoken voice and tape scripts are clear.	30	5.00	5.00	5.00	0.00%	strongly agree
9.2 The spoken voice and tape scripts are accurately put according to unit contents and activities.	30	5.00	5.00	5.00	0.00%	strongly agree
9.3 Background music is clear with appropriate volume.	30	5.00	5.00	5.00	0.00%	strongly agree

Table 4.14 shows positive results of the materials evaluation questionnaire survey as every criterion was rated above 3.50. However, the lowest mean goes to 'The language use is appropriate to activities and units' ($\bar{x} = 3.57$).

As every criterion of the questionnaire was rated above 3.50, it can be concluded that the student nurses were satisfied with the developed self-instructional materials and hypothesis 3 ‘The student nurses have a positive attitude towards the developed self-instructional materials when the criterion to assess receives $\bar{x} > 3.50$ ’ was accepted.

The last part of the questionnaire was the open-ended question; the student nurses may or may not provide any answer. Some student nurses may provide more than one suggestion. There were eight participants providing their comments/suggestions and twenty three participants who did not provide any comment. From those who provided answers to this question, the researcher has grouped the comments and the suggestions using content analysis. The results are demonstrated in Table 4.15.

Table 4.15: Comments and suggestions on the last day of the main study period

Comments and suggestions on the last day of the main study period	No. of student (Frequency)
1. Overall, everything is practical and appropriate. I have learned a lot from the materials developed.	3
2. The listening comprehension test was nerve-wrecking and real.	2
3. Interesting practical contents and materials.	1
4. More grammar lessons.	2
Total comments and suggestions	8

The most frequent comment is that the self-instructional materials developed were practical and appropriate. Two students thought that the listening comprehension test was nerve-wrecking and real. As for the suggestion, two students suggested that the self-instructional materials should put more grammar contents.

4.6. Summary

This chapter presents the results and findings from each stage of the study in response to the research questions. Information from the needs analysis using the questionnaires survey has been reported. The information points out that the student nurses are in the needs of materials to practice their English listening skills.

To fill the gap, specially produced self-instructional materials in form of a handbook with a CD have been developed. The second section of this chapter then presents the process of developing the self-instructional materials. A framework for developing self-instructional materials based on six T's approach is proposed. Then, comments from the experts regarding the instructional materials along with the results from the pilot study are reported. The self-instructional materials are then adjusted based on the experts' comments and information obtained from the pilot study for actual materials implementation. The main study was conducted and evaluation of the materials was made.

With regard to the criteria of efficiency to assess the effectiveness of the developed self-instructional materials at $E_1/E_2 = 80:80$, the result of 84.61/88.40 shows that a package of the developed self-instructional materials could enhance the listening skills of the participating student nurses. Also, the results from a materials evaluation questionnaire survey yields a positive attitude among the participating student nurses towards the developed self-instructional materials.

The last chapter will cover a summary, a discussion of the findings, implications, and recommendations for further study.

CHAPTER V

SUMMARY DISCUSSION AND RECOMMENDATIONS

5.1. Introduction

This chapter begins with a summary and a discussion of the study. Next, some implications are suggested. Finally, some recommendations for further study are also included.

5.2. Summary of the Study

The study aims to develop self-instructional materials to enhance English listening skills for student. The primary objective is to investigate English listening skills needed for student nurses. To do so, a process of needs analysis was conducted based on a questionnaire survey. The next objective is to develop self-instructional materials to enhance English listening skills for them. The results of the needs analysis were used to scope a specification of both academic and physical aspects of the materials. At this point, a framework and principles for developing instructional materials were proposed and used as a guideline for designing self-instructional materials. Another objective is to examine the effectiveness of the developed self-instructional materials against the set criteria. To do so, the standard criteria of efficiency at $E_1/E_2 = 80/80$ was employed. The last objective is to examine the attitude of the student nurses towards the developed self-instructional materials.

There are three main parts in the study – needs analysis, materials development, and materials implementation/evaluation.

1. Needs Analysis

In order to develop self-instructional materials, needs analysis was conducted via a questionnaire survey with 300 student nurses at School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok.

2. Materials Development

The needed English listening skills for student nurses were examined via both content analysis and needs analysis. The Six T's Approach by Stoller and Grabe (1997) and principles of materials development by Tomlinson (2003) were the underlying principles in designing self-instructional materials. After a package of self-instructional materials was developed, it was validated and evaluated by panel of experts. Three experts were invited to validate and evaluate the listening comprehension test, other three experts were invited to validate and evaluate the academic and physical contents of the self-instructional materials and other three experts were invited to validate and evaluate a materials evaluation form. Next, all mentioned instruments were adjusted according to the experts' suggestions. Then one lesson unit of the developed self-instructional was piloted with ten participants who share similar characteristic with the participants of the implementation/evaluation phase. At the end, the ten participants during this pilot study were asked to complete a materials evaluation form for the sample unit. The information obtained from the pilot study was used to adjust the materials as appropriate later on.

3. Materials Implementation and Evaluation

A package of the developed self-instructional materials was implemented with 30 student nurses (first-year to fourth-year student nurses of School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Bangkok) for eight weeks during June 8, - August 8, 2012. The process of evaluating the developed self-instructional materials was conducted both before and after the materials implementation in order to evaluate the effectiveness against the set criteria. The instruments used and their timing are summarized in Table 5.1 below.

Table 5.1: The timing and the research instruments used for materials evaluation

The timing of the evaluation process	The instruments used	Types of the gathered data
Before the materials implementation	1. The checklist for the experts to validate the sample lesson unit of the self-instructional materials	Quantitative data
	2. The checklist for the experts to validate the English listening comprehension test	Quantitative data
	3. The English listening comprehension test (pretest)	Quantitative data
	4. A materials evaluation form for the sample unit (pilot study)	Quantitative data
After the materials implementation	1. The English listening comprehension test (posttest)	Quantitative data
	2. A materials evaluation form	Quantitative data

Three criteria adapted from the framework of evaluating the effectiveness of the course by Pattanapichet (2009: 225) were set to examine the effectiveness of the developed self-instructional materials. The criteria are listed in Table 5.2 below.

Table 5.2: Three criteria used to evaluate the developed self-instructional materials

Criterion number	Timing of the evaluation	Descriptions of each criterion
Criterion no.1	After the materials implementation	<ul style="list-style-type: none"> - Comparing student nurses' scores on English listening comprehension test before and after the implementation. - The student nurses' scores of the posttest are significantly higher than the scores from the pretest according to t-test.
Criterion no.2	After the materials implementation	<ul style="list-style-type: none"> - Comparing the efficiency of the developed materials with student nurses' efficiency of learning. - The standard criteria of efficiency at $E_1/E_2 = 80/80$ is employed to verify the hypothesis of the developed self-instructional materials are at a standard criteria 80:80.
Criterion no.3	After the materials implementation	<ul style="list-style-type: none"> - Study the student nurses' opinions towards the developed self-instructional materials in terms of their academic and physical aspects through the use of a materials evaluation form. - The overall results from a materials evaluation form are $\bar{x} > 3.50$ to indicate positive attitudes towards the self-instructional materials.

5.3. Findings

1. In response to the research question 1: What are the needs of English listening skills for student nurses?, information from the needs analysis by means of a questionnaire survey has been collected and analyzed.

The questionnaire asked the participants to indicate their degree of needs in academic aspects and physical aspects of self-instructional materials and the results revealed that the participants regarded almost every academic and physical aspects as much needed.

2. In response to the research question 2: How can self-instructional materials to enhance English listening skills for student nurses be developed?, the information

obtained from the needs analysis along with synthesis of ESP literature provided the pathway of developing the self-instructional materials.

In addition, two frameworks were used during the process of developing self-instructional materials i.e. the principles of materials development by Tomlinson (2003) and the Six T's Approach by Stoller and Grabe (1997) as they share quite similar attitudes towards language learning in the way that learning will occur when students are provided with appropriate learning materials and act out correspondingly.

3. In response to the research question 3: How effective are the developed self-instructional materials?, the result of 84.61/88.40 against the standard criteria of efficiency at $E_1/E_2 = 80/80$ indicated that the developed self-instructional materials were effective (Promwong, 2520). In terms of the participants' English listening skills as observed from their pre-and posttest scores, the value of 0.00 from t-test indicated that the participants achieved higher scores at a significance level ($p \leq 0.05$). All these results indicate significant improvements in the participants' English listening skills, and thus, demonstrate that the developed self-instructional materials successfully met the needs of these participating student nurses.

4. In response to the research question 4: What is the attitude of student nurses towards the developed self-instructional materials?, the result of $\bar{x} > 3.50$ in all aspects from a materials evaluation form indicated that the satisfaction level of the participants was at a positive level.

In response to all findings mentioned above, results from the examination of the effectiveness of the self-instructional materials can be put against three criteria adapted from the framework for evaluating the effectiveness of the course by Pattanapichet (2009) as follows:

Table 5.3: The results of examining the effectiveness of the developed self-instructional materials

Criterion number	Timing of the evaluation	Descriptions of each criterion	The results
Criterion no.1	After the materials implementation	<ul style="list-style-type: none"> - Comparing student nurses' scores on English listening comprehension test before and after the implementation. - The student nurses' scores of the posttest are significantly higher than the scores from the pretest according to t-test 	The results of 5.23 from t-test indicated that student nurses had higher scores in the posttest at a significance level ($p \leq 0.05$). (see Table 4.13)
Criterion no.2	After the materials implementation	<ul style="list-style-type: none"> - Comparing the efficiency of the developed materials with student nurses' efficiency of learning. - The standard criteria of efficiency at $E_1/E_2 = 80/80$ is employed to verify the hypothesis of the developed self-instructional materials are at a standard criteria 80:80 	The result of 84.61/88.40 from the standard criteria of efficiency at $E_1/E_2 = 80/80$ indicated that a package of developed self-instructional materials was effective and appropriate to use as self-instructional materials to enhance English listening skills for student nurses. (see Table 4.11)
Criterion no.3	After the materials implementation	<ul style="list-style-type: none"> - Study the student nurses' opinions towards the developed self-instructional materials in terms of their academic and physical satisfaction through the use of questionnaire. - The results of the materials evaluation form are $\bar{x} > 3.50$ which indicates positive attitudes towards the overall self-instructional materials. 	The overall result of $\bar{x} > 3.50$ in both academic aspects and physical aspects from the questionnaire indicated that student nurses had positive attitudes towards the developed self-instructional materials. (see Table 4.14)

In conclusion, all above quantitative data indicate that there was an improvement in student nurses' English listening skills and the student nurses were satisfied with the developed self-instructional materials. All of the evidence indicates the effectiveness of the developed self-instructional materials.

5.4. Discussion

The findings of the needs analysis

The ELDC and the CELBAN list of skills of listening in English provide useful information and a handy basis for scoping the listening skills needed for the student nurses and a group of experts in the field of ESP and materials design as mentioned in chapter II suggests some useful frameworks for developing self-instructional materials. However, as the study deals with developing the self-instructional materials for the student nurses, the exact needs from the student nurses must be identified as there might be some slight differences between the stakeholders' needs and the student nurses' needs. For example, the quality of sound recording in CD is physical priority of the self-instructional materials for the student nurses. Therefore, it is necessary to investigate on this aspect.

The information obtained from the needs analysis indicates that student nurses need self-instructional learning materials to practice their English listening skills as all aspects were rated as much needed/very important ($\bar{x} = 3.51 - 4.50$). This means that the student nurses are willing to learn and acquire the needed English listening skills. Moreover, since the results of types of materials used to practice English listening indicate that the most used materials are self-study books with CDs, self-instructional materials coming in a package of a handbook with CD and emphasizing on practicing the needed English listening skills are, therefore, a perfect solution to the problem.

Self-Instruction

The self-instructional materials were developed for the student nurses as one of the channels through which they were able to possess better listening skills in English when they were ready. In addition, in five units of the developed self-

instructional materials, the student nurses had the freedom to set their learning schedule according to their preferences; to choose when to study, what to study, and how to study to suit their individual needs. These features were in line with Gardner & Miller (1999)'s ideas of specially produced self-instructional materials mentioning that they can effectively bridge the gap of different needs between teachers' and those of students' and result in students feeling a greater commitment to their study and enabling them to move further towards their goals of learning. Similarly, in the study of Detaramani (1999), 585 students of City University of Hong Kong were reported to possess stronger skills of both speaking and listening in English after attending more self-study center.

Means for regulating the self-study – Learner Contract and Facebook

Learner contract

Self-instruction is a personal learning that is planned and carried out by an individual. This kind of learning has the purpose to improve one's competence on a particular issue such as on a job or in a profession. Therefore, materials developers should take needs and expectations of learners into account when developing any self-instructional materials.

Knowles (1975) mentioned that a learner contract or a "binding agreement" could provide some mechanism for learners to determined needs as they carry out their learning. Besides, it was a vehicle for making the planning of learning a mutual undertaking between the learners and the teachers. Therefore, the researcher has applied the learner contract as it was an actual document that articulated a clear goal, objectives, and measures and to which the student nurses would hold themselves accountable. Literally, it served as a means for negotiating a reconciliation between

the researchers' needs and the student nurses' needs in terms of what learning objectives should be worked toward, how (and when) to use resources inside the developed materials, and how the learning objectives would be evaluated.

Facebook

Social Media such as Facebook has changed how people communicate and has become an essential part of student life for most college students; it serves not only as a primary tool of communication but also electronic socialization (Golder, Wilkinson, & Huberman, 2007) (cited in Towner and Muñoz, 2011: 33).

For the student nurses, they could share ideas about their homework and assignments while the researcher could communicate and get the feedback from them during and after their study. Facebook, therefore, was an effective extrinsic motivation to facilitate the learning in English and enhance the characteristic of self-directed learning or self-study among the student nurses. This feature seems to agree with Detaramani (1999)'s study about the achievement of language learning in the self-access center mentioning that 585 students from City University of Hong Kong value all multimedia and facilities focusing on listening skills as the strong extrinsic motivation to improve their English listening skills.

Effectiveness of the developed self-instructional materials

Based on the findings from the posttest, it appears that the student nurses' listening skills of English significantly improved. The reasons are the fact that the self-instructional materials were tailor-made to serve the very specific needs of these students and this motivates them and enable them to concentrate on their learning in order to achieve the needed listening skills. To assure such matter, the standard criterion of efficiency at $E_1/E_2 = 80/80$ plays a vital role. E_1 means the efficiency of

the developed materials. By allowing the student nurses to complete all activities, their scores would be collected and analyzed in percentage to compare with the scores of the post-test and finally reflected their learning progression. On the other hand, E_2 means the overall learning performance of the student nurses which reflects the skills of listening English after using a package of the developed self-instructional materials. The posttest scores were used to compare with the scores of five units' activities to reflect the effectiveness of the developed self-instructional materials. Therefore, the result of 84.61/88.40 after the implementation of the self-instructional materials against the standard criteria of efficiency at $E_1/E_2 = 80/80$ can perfectly indicate that the developed self-instructional materials can enhance the listening skills of the student nurses.

After the implementation of the self-instructional materials, the result of 84.61/88.40 against the standard criteria of efficiency at $E_1/E_2 = 80/80$ indicated that the developed self-instructional materials were effective in terms of enhancing English listening skills of the student nurses (Promwong, 2520). Besides, the value of 0.00 from t-test indicated that the participants achieved higher scores at a significance level ($p \leq 0.05$). The results from a materials evaluation form also help indicate the effectiveness of the developed materials. Positive attitudes ($\bar{x} > 3.50$) towards all aspects helped the researcher specify that the developed self-instructional materials could potentially enhance student nurses' level of English listening skills. This may be because the researcher used appropriate language and vocabulary and tallied them into the contents keeping in view of students' background knowledge and experiences and from easy to difficult. Moreover, each unit included a series of activities where student nurses were expected to listen and internalize the concepts and skills

necessary and were asked to answer questions that require them to think more deeply about the concepts and skills related to their language needs and learning situation. These activities were designed to encourage them reflect more critically on their learning practices and be more autonomous. This process of designing the self-instructional materials was accordingly consistent with Workman (1991)'s idea of writing instructional materials mentioning that giving prior suggestions that listeners have some background knowledge will enable them to fully understand what is being uttered and help them reflect more critically during their learning.

5.5. Implications

The present study provides a complete picture of how ESP self-instructional materials could be designed and implemented. The researcher would like to recommend as follows.

1. Basturkmen (2003:57) (cited in Vasavakul, 2006) described that it is rather difficult to get access to the target groups to investigate their language use. Especially in the study on self-directed learning, the researcher could not know how much time and efforts were put during the study period. So, such a study is usually time-consuming and probably very few ESP practitioners have enough available time to do so. In addition, the efforts used are very rewarding both in terms of academic knowledge and opportunity for the practitioners to provide English listening materials that truly meet their students' needs. Once the materials prove successful in enhancing the students' English listening skills, they will express more willingness to continue study on their own.

2. In English for Specific Purposes, the teacher or the practitioner should be very opened-minded in listening and learning from their students. Students'

experiences are essential resources that bring about a significant contribution to their English listening skills in different contexts.

5.6. Recommendations for further study

Based on the results and information from the study, the recommendations for further research are as follows.

1. The findings show that participants achieved improvements in their English listening skills after using the developed self-instructional materials. This may be due to the nature of the materials which is much focused and tailored to particular group of students' needs together with participants' motivation to learn as previously discussed. However, due to the time and financial constraints, it was impossible to have student nurses from more than one school of nursing. As a result, all participants in the pilot study and main study were from the same school of nursing. Similar self-instructional materials, therefore, may need to be conducted in other schools of nursing for generalizability of the study.

2. Movies are rated as the second type of materials used most to practice English listening. If the situation permits, in the future research, an alternative method listening like movies may be worth developing and investigate their impact on English listening skills of the student nurses.

3. There should still be a great demand for other tailor-made English listening materials in other schools of nursing. However, lots of time and financial supports are required in developing such materials; yet, it is very much worth the effort. This study, therefore, can be the pathway for developing such kind of materials for teachers and practitioners who are interested.

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Appendices

Appendix A

The questionnaire form for the needs survey

แบบสอบถามความต้องการพัฒนาทักษะการฟังภาษาอังกฤษและสื่อการเรียนรู้ด้วยตนเองสำหรับงาน

วิจัยเรื่อง

การพัฒนาสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาล

แบบสอบถามนี้แบ่งออกเป็นทั้งสิ้น 6 ตอน 7 หน้า ได้แก่

ตอนที่ 1 จุดประสงค์ของแบบสอบถาม

ตอนที่ 2 ข้อมูลส่วนบุคคลของผู้ตอบแบบสอบถาม

ตอนที่ 3 ระดับทักษะการฟังภาษาอังกฤษและระดับความต้องการพัฒนาทักษะการฟังภาษาอังกฤษของผู้ตอบแบบสอบถาม

ตอนที่ 4 ปัญหาเกี่ยวกับทักษะการฟังภาษาอังกฤษโดยทั่วไปของผู้ตอบแบบสอบถาม

ตอนที่ 5 ชนิดของสื่อการเรียนรู้ด้วยตนเองที่ช่วยพัฒนาทักษะการฟังภาษาอังกฤษตามความต้องการของผู้ตอบแบบสอบถาม

ตอนที่ 6 ข้อเสนอแนะเพิ่มเติม

กรุณาตอบแบบสอบถามนี้ตามความจริง เพราะข้อมูลของท่านจักเป็นประโยชน์ต่อการพัฒนาสื่อการเรียนรู้ด้วยตนเองสำหรับพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาล

ตอนที่ 1 จุดประสงค์ของแบบสอบถาม

แบบสอบถามนี้มีจุดประสงค์เพื่อสอบถามปัญหาและความต้องการพัฒนาทักษะการฟังภาษาอังกฤษของกลุ่มนักศึกษาพยาบาลที่กำลังศึกษาในวิทยาลัยพยาบาลในเขตกรุงเทพมหานคร ข้อมูลจากแบบสอบถามนี้จะนำไปเป็นส่วนหนึ่งในการวิเคราะห์ข้อมูลสำหรับวิทยานิพนธ์เรื่อง การสร้างสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาล จึงใคร่ขอความร่วมมือตอบแบบสอบถามนี้ตามความเป็นจริง

ตอนที่ 2 ข้อมูลส่วนบุคคลของผู้ตอบแบบสอบถาม

คำชี้แจง โปรดเขียนเครื่องหมาย “✓” ลงในช่อง ตามข้อมูลที่เป็นจริง

1. เพศ หญิง ชาย

2. อายุ (โปรดระบุ)

3. ระยะเวลาที่ได้ศึกษาภาษาอังกฤษ

8-11 ปี

12-15 ปี

16-19 ปี

มากกว่า 20 ปี

4. ท่านคิดว่าภาษาอังกฤษมีความจำเป็นต่อการเรียนของท่านหรือไม่
 จำเป็น ไม่จำเป็น
5. ท่านคิดว่าระดับทักษะการฟังภาษาอังกฤษของท่านอยู่ในระดับใด
 ดีมาก ดี ปานกลาง ไม่ดี แย่
6. ประเภทสื่อที่ท่านใช้เพื่อการเรียนการฟังภาษาอังกฤษด้วยตนเองบ่อยที่สุด
 วิทยู เช่น ข่าวหรือรายการบันเทิงภาคภาษาอังกฤษ จากสถานีวิทยุต่างๆ
 โทรทัศน์ เช่น รายการข่าวหรือรายการบันเทิงภาคภาษาอังกฤษทางช่องโทรทัศน์ต่างๆ

 ภาพยนตร์ภาษาอังกฤษ
 อินเทอร์เน็ต
 การสนทนากับชาวต่างชาติหรือผู้เชี่ยวชาญทางภาษาอังกฤษ
7. วิธีการเรียนเพื่อพัฒนาทักษะการฟังภาษาอังกฤษของท่านที่ใช้บ่อย
 ศึกษาจากสื่อการเรียนรู้ประเภท สื่อสิ่งพิมพ์, วิทยู, โทรทัศน์ รายการบันเทิงต่างๆ ฯลฯ ด้วยตนเอง
(Self Directed Learning)
 เข้าเรียนในสถาบันที่เปิดสอนภาษาอังกฤษ เช่น วอลสตริต, ฟาสท์ อิงลิช, บริติช เคานซิล, ฯลฯ

ตอนที่ 3 ระดับ ความสำคัญของทักษะการฟังภาษาอังกฤษและความต้องการพัฒนาทักษะการฟัง

ภาษาอังกฤษของผู้ตอบแบบสอบถาม

คำชี้แจง โปรดอ่านข้อความที่กำหนดให้จากนั้นประเมินระดับทักษะการฟังภาษาอังกฤษของท่านและระดับ

ความต้องการพัฒนาทักษะการฟังนั้นๆ โดยทำเครื่องหมาย “✓” และใส่หมายเลขในช่อง ที่จัดให้ดังนี้

- 5 = สำคัญมากที่สุด/ ต้องการมากที่สุด
 4 = สำคัญมาก / ต้องการมาก
 3 = สำคัญปานกลาง / ต้องการปานกลาง
 2 = สำคัญน้อย / ต้องการน้อย
 1 = สำคัญน้อยมาก / ต้องการน้อยมาก

ทักษะการฟัง	ระดับความสำคัญ					ระดับความต้องการ				
	5	4	3	2	1	5	4	3	2	1
1. เข้าใจคำศัพท์พื้นฐานทั่วไปที่เกี่ยวข้องกับการแพทย์และพยาบาล	5	4	3	2	1	5	4	3	2	1
2. จำข้อความที่ฟังเสร็จในระยະสั้นๆ ได้	5	4	3	2	1	5	4	3	2	1
3. เข้าใจรูปย่อของคำที่เปล่งเสียงออกมาได้ เช่น I'll, I gonna, I see. เป็นต้น	5	4	3	2	1	5	4	3	2	1
4. เข้าใจความหมายของคำพูดที่มีรูปแบบการเรียงลำดับคำเฉพาะได้ เช่น so long! หรือ I couldn't agree more.	5	4	3	2	1	5	4	3	2	1
5. เข้าใจการลงน้ำหนักและการขึ้นลงของน้ำเสียงผู้พูดว่าเป็นคำถาม บอกเล่า หรือปฏิเสธได้	5	4	3	2	1	5	4	3	2	1
6. สามารถจับคำสำคัญ หรือ ใจความสำคัญจากสิ่งที่ฟังได้	5	4	3	2	1	5	4	3	2	1
7. สามารถเดาคำศัพท์จากบริบทได้	5	4	3	2	1	5	4	3	2	1
8. เข้าใจความหมายโดยนัยของสารที่ฟังได้ เช่น ความต้องการ ทรรศนคติ หรือความคิดเห็นได้	5	4	3	2	1	5	4	3	2	1
9. เข้าใจหลักวากยสัมพันธ์ (ไวยากรณ์) พื้นฐานภาษาอังกฤษได้	5	4	3	2	1	5	4	3	2	1
11. สามารถระบุ ประธาน กริยา กรรม หรือบุพบท จากสิ่งที่ฟังได้	5	4	3	2	1	5	4	3	2	1

ตอนที่ 4 อุปสรรคและ/ หรือสาเหตุที่มีผลต่อการพัฒนาทักษะการฟังภาษาอังกฤษของผู้ตอบแบบ
สอบถาม

คำชี้แจง โปรดอ่านข้อความที่กำหนดให้ จากนั้นประเมิน อุปสรรคและ/หรือสาเหตุที่มีผลต่อการพัฒนาทักษะ
การฟังภาษาอังกฤษต่อท่าน โดยทำเครื่องหมาย “ ✓ ” ลงในช่อง ที่จัดให้ดังนี้

5	=	มากที่สุด
4	=	มาก
3	=	ปานกลาง
2	=	น้อย
1	=	น้อยมาก

สาเหตุ		ระดับของปัญหา				
		5	4	3	2	1
จากตัว ผู้เรียนเอง (ข้อ 1-5)	1. มักคาดเดาสิ่งที่ผู้พูดกำลังพูด	5	4	3	2	1
	2. มักเดาคำศัพท์และสำนวนที่ไม่รู้จัก	5	4	3	2	1
	3. มักสรุปประเด็นสำคัญๆจากสิ่งที่ฟังเอง	5	4	3	2	1
	4. มีความวิตกกังวลขณะฟัง	5	4	3	2	1
	5. ขาดกลยุทธ์การฟังบทสนทนาที่มีเนื้อหายาว	5	4	3	2	1
จากสื่อการ เรียนฯเอง (ข้อ 6-11)	6. บทเรียนไม่คุ้นเคย	5	4	3	2	1
	7. สำเนียงการออกเสียงภาษาอังกฤษที่ไม่คุ้นหู เช่น สำเนียงภาษาอังกฤษของชาวอินเดีย หรือ ของชาว ญี่ปุ่น เป็นต้น	5	4	3	2	1
	8. ขาดความคุ้นเคยกับสื่อ หรือวิธีการใช้สื่อที่มีเทคโนโลยี ขั้นสูง เช่น iPad เป็นต้น	5	4	3	2	1
	9. คำศัพท์ และสำนวนแสดงต่างๆ	5	4	3	2	1
	10. ความเร็วของการพูด	5	4	3	2	1
	11. ภาษาอังกฤษที่เป็นภาษาพูดไม่คุ้นเคยและอาจมี ลักษณะที่ไม่ถูกต้องสมบูรณ์ตามหลักไวยากรณ์ ภาษาอังกฤษแต่นิยมพูดอย่างแพร่หลายในกลุ่มผู้ พูดภาษาอังกฤษ	5	4	3	2	1
สาเหตุอื่นๆ (โปรดระบุ)	เช่น เวลาไม่เอื้ออำนวยต่อการฝึกฝน หรือ ปัญหา ทางด้านประสาทวิทยา เช่นหูตึง เป็นต้น	5	4	3	2	1

ตอนที่ 5 ระดับความต้องการด้านเนื้อหาวิชาการ และด้านกายภาพ ของสื่อการเรียนรู้ด้วยตนเองฯ

คำชี้แจง โปรดอ่านข้อความที่กำหนดให้จากนั้นประเมินระดับความต้องการด้านเนื้อหาวิชาการและด้าน

กายภาพของสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษ โดยทำเครื่องหมาย “✓”

ลงในช่อง ตามความเห็นของท่านดังนี้

5 = มากที่สุด

4 = มาก

3 = ปานกลาง

2 = น้อย

1 = น้อยมาก

หัวข้อสำหรับการพิจารณา	ระดับความต้องการ				
	5	4	3	2	1
ด้านวิชาการ					
1. เนื้อหา					
1.1 สอดคล้องกับวัตถุประสงค์การเรียนรู้และความต้องการ	5	4	3	2	1
1.2 แต่ละหน่วยการเรียนรู้ มีองค์ประกอบของสื่อการเรียนรู้ด้วยตนเองครบถ้วน ได้แก่ วัตถุประสงค์ การเรียนรู้ บทนำ คำแนะนำการเรียน เนื้อหาบทเรียน กิจกรรมแบบทดสอบตนเอง สรุปการเรียนรู้ และตัวอย่างคำตอบของกิจกรรมและแบบทดสอบท้ายบทเรียน	5	4	3	2	1
1.3 สอดคล้องกับบริบทการเรียนรู้ของผู้เรียนในเรื่องการแพทย์ และ พยาบาล	5	4	3	2	1
1.4 มีความยากง่ายเหมาะสมกับภูมิความรู้และประสบการณ์ของผู้เรียน	5	4	3	2	1
1.5 มีความสมจริง	5	4	3	2	1
1.6 ทันสมัย	5	4	3	2	1
1.7 มีภาพประกอบเพื่อความเข้าใจในเนื้อหา หรือประเด็นที่สำคัญของบทเรียน	5	4	3	2	1
2. การวางลำดับเนื้อหา					
2.1 ชัดเจน เข้าใจง่าย	5	4	3	2	1
2.2 แบ่งตามลำดับความสำคัญ จากมาก ไป น้อย และจากง่าย ไป ยาก	5	4	3	2	1
2.3 มีตัวเลขกำกับชัดเจน	5	4	3	2	1
2.4 เนื้อหาเชื่อมโยงภายในบทเรียนเดียวกันและระหว่างบทเรียน	5	4	3	2	1

2.5 ความยาวของเนื้อหาเหมาะสมกับหัวข้อ หรือ บทเรียนนั้นๆ	5	4	3	2	1
2.6 คำแนะนำการเรียนด้วยตนเอง ปรากฏชัดเจนก่อนเริ่มเรียนบทเรียนนั้นๆ	5	4	3	2	1
2.7 มีพื้นที่เพียงพอต่อการเขียนคำตอบ หรือจดเนื้อหาที่สำคัญ	5	4	3	2	1
3. การนำเสนอเนื้อหาในคู่มือการเรียน					
3.1 เนื้อหานำเสนอตรงตามจุดประสงค์การเรียน	5	4	3	2	1
3.2 เนื้อหาและประเด็นที่สำคัญในบทเรียนนั้นๆ ชัดเจน สละชุดตา	5	4	3	2	1
3.3 ภาพประกอบของเนื้อหาในบทเรียนชัดเจน เสริมสร้างจินตนาการและความเข้าใจ ทั้งยังกระตุ้นให้ผู้เรียนอยากเรียนรู้อีกขึ้น	5	4	3	2	1
3.4 เนื้อหาและภาพประกอบที่นำมาใช้บอกที่มาและแหล่งอ้างอิงชัดเจน	5	4	3	2	1
4. ภาษาที่ใช้					
4.1 ชัดเจน เข้าใจง่าย ไม่คลุมเคลือ	5	4	3	2	1
4.2 ภาษาที่ใช้เหมาะสมกับกิจกรรมและบทเรียนนั้นๆ	5	4	3	2	1
4.3 คำศัพท์และสำนวนที่ใช้ เหมาะสมกับภูมิความรู้และประสบการณ์ของผู้เรียน	5	4	3	2	1
4.4 คำศัพท์และสำนวนที่ใช้ เป็นคำศัพท์และสำนวนที่ใช้จริงในวงการแพทย์และพยาบาล	5	4	3	2	1
5. แบบฝึกหัดและกิจกรรมในสื่อการเรียนรู้อย่างตนเอง					
5.1 สอดคล้องกับจุดประสงค์การเรียน และทักษะการฟังนั้นๆ	5	4	3	2	1
5.2 สอดคล้องกับเนื้อหาในบทเรียนนั้นๆ	5	4	3	2	1
5.3 มีกิจกรรมและแบบฝึกหัดที่เสริมสร้างการเรียนรู้ กระตุ้นความคิดและความเข้าใจในบทเรียน	5	4	3	2	1
5.4 มีกิจกรรมและแบบฝึกหัดในบทเรียนที่ส่งเสริมให้ผู้เรียนเกิดความคิดอย่างมีวิจารณญาณ และสร้างสรรค์ ขณะฟังได้	5	4	3	2	1
5.5 มีกิจกรรมและแบบฝึกหัดในบทเรียนที่สามารถช่วยพัฒนาทักษะการฟังภาษาอังกฤษของผู้เรียนหลังการฟังได้	5	4	3	2	1
5.6 มีตัวอย่างคำตอบของกิจกรรม แบบฝึกหัด และแบบทดสอบต่างๆพร้อมคำอธิบายที่ชัดเจนปรากฏท้ายบทเรียน	5	4	3	2	1
5.7 แสดงตารางประเมินการให้คะแนนแก่ผู้เรียนเพื่อเปรียบเทียบกับคะแนนที่ทำได้	5	4	3	2	1
ด้านกายภาพของสื่อการเรียนรู้อย่างตนเอง					
6. การจัดพิมพ์รูปเล่ม					
6.1 รูปแบบปกสวยงาม สละชุดตา	5	4	3	2	1

6.2	ขนาดตัวอักษร ของหัวข้อ และของเนื้อหาเหมาะสม	5	4	3	2	1
6.3	การจัดรูปแบบเหมาะสมกับการอ่าน	5	4	3	2	1
6.4	หมายเลขหน้ากำกับชัดเจนและสังเกตง่าย	5	4	3	2	1
6.5	ระยะห่างระหว่างบรรทัดเหมาะสม	5	4	3	2	1
6.6	ไม่ฉีกคำ	5	4	3	2	1
6.7	การพิมพ์ชัดเจนทั้งคำและภาพประกอบ	5	4	3	2	1
7. ความคงทนของสื่อการเรียนรู้ด้วยตนเอง						
7.1	การจัดทำรูปแบบ คงทน ไม่ฉีกขาดง่าย	5	4	3	2	1
7.2	ปกหนังสือคงทน ไม่ฉีกขาดง่าย	5	4	3	2	1
7.3	กระดาษที่ใช้พิมพ์คงทน ไม่ฉีกขาดง่าย	5	4	3	2	1
7.4	ซีดีหรือแถบบันทึกเสียงไม่แตกหักง่าย	5	4	3	2	1
8. ขนาดของสื่อการเรียนรู้ด้วยตนเอง						
	ขนาดกระดาษที่รัด น้ำหนักเบา สะดวกต่อการพกพา	5	4	3	2	1
9. คุณภาพเสียงที่บันทึก						
9.1	เสียงคำบรรยายและบทสนทนา (tape script)ชัดเจน	5	4	3	2	1
9.2	เสียงคำบรรยาย และบทสนทนา (tape script)ตรงตามลำดับเนื้อหาในบทเรียน แบบฝึกหัด และ กิจกรรม	5	4	3	2	1
9.3	เสียงดนตรีประกอบชัดเจน และมีความดังที่เหมาะสม	5	4	3	2	1

ตอนที่ 6 ข้อเสนอแนะเพิ่มเติม

คำชี้แจง หากท่านมีความประสงค์เสนอแนะ หรือให้ข้อมูลเพิ่มเติม กรุณาเขียนด้านล่าง

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ขอบคุณสำหรับการตอบแบบสอบถาม

ผู้วิจัย

Appendix B

A materials evaluation form

แบบประเมินความพอใจของสื่อการเรียนรู้ด้วยตนเองฯ

แบบประเมินนี้จัดทำขึ้นเพื่อประเมินและวิเคราะห์ความเห็นต่อบทเรียนที่ได้พัฒนาเพื่อใช้เป็น สื่อการเรียนรู้
ด้วยตนเองเพื่อเพิ่มทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาล

คำชี้แจง กรุณาทำเครื่องหมาย ✓ ลงในช่องที่ตรงกับความคิดเห็นของท่านดังนี้

5	=	เห็นด้วยอย่างยิ่ง/มากที่สุด
4	=	เห็นด้วย/มาก
3	=	เฉยๆ/ปานกลาง
2	=	เห็นด้วยน้อย/ น้อย
1	=	ไม่เห็นด้วย/ น้อยมาก

หัวข้อ	ระดับความเห็น				
	5	4	3	2	1
ด้านวิชาการ					
1. เนื้อหา					
1.1 สอดคล้องกับวัตถุประสงค์การเรียนรู้และความต้องการ	5	4	3	2	1
1.2 แต่ละหน่วยการเรียนรู้ มีองค์ประกอบของสื่อการเรียนรู้ด้วยตนเองครบถ้วน ได้แก่ วัตถุประสงค์ การเรียนรู้ บทนำ คำแนะนำการเรียนรู้ เนื้อหาบทเรียน กิจกรรม แบบทดสอบตนเอง สรุปการเรียนรู้ และตัวอย่างคำตอบของกิจกรรมและแบบทดสอบท้ายบทเรียน	5	4	3	2	1
1.3 สอดคล้องกับบริบทการเรียนรู้ของผู้เรียนในเรื่องการแพทย์ และ พยาบาล	5	4	3	2	1
1.4 มีความยาก ง่ายเหมาะสมกับภูมิความรู้และประสบการณ์ของผู้เรียน	5	4	3	2	1
1.5 มีความสมจริง	5	4	3	2	1
1.6 ทันสมัย	5	4	3	2	1
1.7 มีภาพประกอบเพื่อความเข้าใจในเนื้อหา หรือประเด็นที่สำคัญของบทเรียน	5	4	3	2	1
2. การวางลำดับเนื้อหา					
2.1 ชัดเจน เข้าใจง่าย	5	4	3	2	1
2.2 แบ่งตามลำดับความสำคัญ จากมาก ไป น้อย และจากง่าย ไป ยาก	5	4	3	2	1
2.3 มีตัวเลขกำกับชัดเจน	5	4	3	2	1
2.4 เนื้อหาเชื่อมโยงภายในบทเรียนเดียวกันและระหว่างบทเรียน	5	4	3	2	1
2.5 ความยาวของเนื้อหาเหมาะสมกับหัวข้อ หรือ บทเรียนนั้นๆ	5	4	3	2	1
2.6 คำแนะนำการเรียนรู้ด้วยตนเอง ปรากฏชัดเจนก่อนเริ่มเรียนบทเรียนนั้นๆ	5	4	3	2	1
2.7 มีพื้นที่เพียงพอต่อการเขียนคำตอบ หรือจดเนื้อหาที่สำคัญ	5	4	3	2	1

3. การนำเสนอเนื้อหาในคู่มือการเรียน					
3.1 เนื้อหานำเสนอตรงตามจุดประสงค์การเรียน	5	4	3	2	1
3.2 เนื้อหาและประเด็นที่สำคัญในบทเรียนนั้นๆ ชัดเจน สะดุดตา	5	4	3	2	1
3.3 ภาพประกอบของเนื้อหาในบทเรียนชัดเจน เสริมสร้างจินตนาการและความเข้าใจ ทั้งยังกระตุ้นให้ผู้เรียนอยากเรียนรู้ยิ่งขึ้น	5	4	3	2	1
3.4 เนื้อหาและภาพประกอบที่นำมาใช้บอกที่มาและแหล่งอ้างอิงชัดเจน	5	4	3	2	1
4. ภาษาที่ใช้					
4.1 ชัดเจน เข้าใจง่าย ไม่คลุมเครือ	5	4	3	2	1
4.2 ภาษาที่ใช้เหมาะสมกับกิจกรรมและบทเรียนนั้นๆ	5	4	3	2	1
4.3 คำศัพท์และสำนวนที่ใช้ เหมาะสมกับภูมิความรู้และประสบการณ์ของผู้เรียน	5	4	3	2	1
4.4 คำศัพท์และสำนวนที่ใช้ เป็นคำศัพท์และสำนวนที่ใช้จริงในวงการแพทย์และ พยาบาล	5	4	3	2	1
5. แบบฝึกหัดและกิจกรรมในสื่อการเรียนรู้ด้วยตนเอง					
5.1 สอดคล้องกับจุดประสงค์การเรียน และทักษะการฟังนั้นๆ	5	4	3	2	1
5.2 สอดคล้องกับเนื้อหาในบทเรียนนั้นๆ	5	4	3	2	1
5.3 มีกิจกรรมและแบบฝึกหัดที่เสริมสร้างการเรียนรู้ กระตุ้นความคิดและความเข้าใจใน บทเรียน	5	4	3	2	1
5.4 มีกิจกรรมและแบบฝึกหัดในบทเรียนที่ส่งเสริมให้ผู้เรียนเกิดความคิดอย่างมี วิจารณญาณ และสร้างสรรค์ ขณะฟังได้	5	4	3	2	1
5.5 มีกิจกรรมและแบบฝึกหัดในบทเรียนที่สามารถช่วยพัฒนาทักษะการฟัง ภาษาอังกฤษของผู้เรียนหลังการฟังได้	5	4	3	2	1
5.6 มีตัวอย่างคำตอบของกิจกรรม แบบฝึกหัด และแบบทดสอบต่างๆ พร้อมคำอธิบายที่ ชัดเจนปรากฏท้ายบทเรียน	5	4	3	2	1
5.7 แสดงตารางประเมินการให้คะแนนแก่ผู้เรียนเพื่อเปรียบเทียบกับคะแนนที่ทำได้	5	4	3	2	1
ด้านกายภาพของสื่อการเรียนรู้ด้วยตนเอง					
6. การจัดพิมพ์รูปเล่ม					
6.1 รูปแบบปกสวยงาม สะดุดตา	5	4	3	2	1
6.2 ขนาดตัวอักษร ของหัวข้อ และของเนื้อหาเหมาะสม	5	4	3	2	1
6.3 การจัดรูปเล่มเหมาะสมกับการอ่าน	5	4	3	2	1
6.4 หมายเลขหน้ากำกับชัดเจนและสังเกตง่าย	5	4	3	2	1
6.5 ระยะห่างระหว่างบรรทัดเหมาะสม	5	4	3	2	1

6.6 ไม่ฉีกคำ	5	4	3	2	1
6.7 การพิมพ์ชัดเจนทั้งคำและภาพประกอบ	5	4	3	2	1
7. ความคงทนของสื่อการเรียนรู้ด้วยตนเอง					
7.1 การจัดทำรูปเล่ม คงทน ไม่ฉีกขาดง่าย	5	4	3	2	1
7.2 ปกหนังสือคงทน ไม่ฉีกขาดง่าย	5	4	3	2	1
7.3 กระดาษที่ใช้พิมพ์คงทน ไม่ฉีกขาดง่าย	5	4	3	2	1
7.4 ซีดีหรือแถบบันทึกเสียงไม่แตกหักง่าย	5	4	3	2	1
8. ขนาดของสื่อการเรียนรู้ด้วยตนเอง					
ขนาดกระทัดรัด น้ำหนักเบา สะดวกต่อการพกพา	5	4	3	2	1
9. คุณภาพเสียงที่บันทึก					
9.1 เสียงคำบรรยายและบทสนทนา (tape script) ชัดเจน	5	4	3	2	1
9.2 เสียงคำบรรยาย และบทสนทนา (tape script) ตรงตามลำดับเนื้อหาในบทเรียน แบบฝึกหัด และ กิจกรรม	5	4	3	2	1
9.3 เสียงดนตรีประกอบชัดเจน และมีความดังที่เหมาะสม	5	4	3	2	1

ข้อเสนอแนะเพิ่มเติม

คำแนะนำและข้อเสนอแนะของท่านจักเป็นประโยชน์ยิ่งในการพัฒนาสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาลในลำดับต่อไป

.....

.....

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.....

ขอบคุณที่ให้ความร่วมมือ

นายเกริก เจษฎานุกวัฒน์

ผู้วิจัย

Appendix C

**A sample lesson unit of the developed
self-instructional materials**

1 [UNIT 1]

UNIT
1*What happened
to you?*In
this
unit

- *Checking the vital sign*
- *Filling in a patient record form*
- *The Past Simple and The Past Continuous*

**Self-Study Plan:** *What happened to you?***Concepts:**

1. To understand and recognize the importance of getting patients into the hospital, nursing staffs need to ask, screen patients, and follow the instructions of the physician to provide the most successful treatment.
2. To record the symptoms of the patients in medical forms can help the physician and other nursing staffs know the progression of the symptoms and be able to give an appropriate treatment for the patients.

Objectives:

When finish studying Unit 1, student nurses will be able to...

1. Record general information in a patient record form.
2. Acknowledge general examination and record vital sign.
3. Use the Past Simple and the Past Continuous to describe past events.

Tasks:

1. Do the pretest to assess your prior listening skills before starting the unit.
2. Self-study the unit's materials.
3. Listen to the CD.
4. Do the unit's exercises and check the answers.
5. Do the posttest to assess your listening skills.
6. Self-assess unit's objectives in the checklist provided.

Listening Materials:

1. Book, *Listening in English for Nursing Purposes; Unit 1.*
2. CD Audio *Listening in English for Nursing Purposes; Unit 1.*

Evaluation:

1. Assess from the scores made in the pretest and the posttest.
2. Assess from the answers made in unit's activities.
3. Assess from the listening comprehension test.

Don't worry about the score you will make.

Pretest: Unit 1

Part 1. Listen to a conversation between the ward nurse and a patient. Mark the following statements either True or False.

- | | | |
|---|-------------------------------|--------------------------------|
| ✦ The nurse knows the patient's name. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✦ The nurse introduces himself to the patient. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✦ The nurse explains the nurse call button. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✦ The nurse checks if the patient can walk to the bathroom. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✦ The nurse is in a hurry. | <input type="checkbox"/> True | <input type="checkbox"/> False |

Part 2. Listen to another conversation between a patient and a nurse. Mark the statements either True or False.

- | | | |
|---|-------------------------------|--------------------------------|
| ✦ The nurse knows the patient's name. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✦ The nurse introduces himself to the patient. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✦ The nurse explains the nurse call button. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✦ The nurse checks if the patient can walk to the bathroom. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✦ The nurse is in a hurry. | <input type="checkbox"/> True | <input type="checkbox"/> False |

Part 3. Listen to the conversation between Shona and Mrs. Chad and match the questions (1-7) to the answer (a-g).

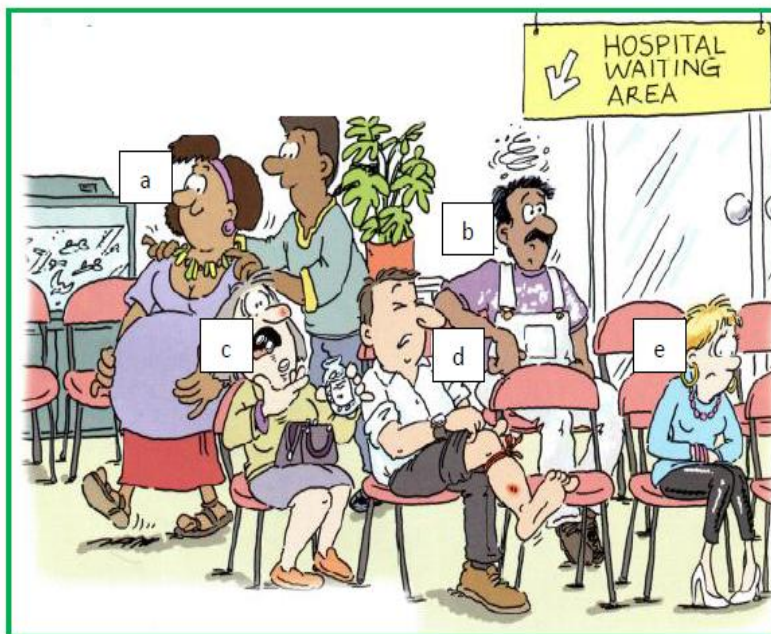
- | | |
|--|--|
| 1. Can you tell me your full name, please? | A. Not that I know of. |
| 2. Can you tell me why you're here today? | B. No, I'm very lucky. I never have. |
| 3. Have you had any serious illnesses in the past? | C. It's my son, Jeremy. Jeremy Chad. |
| 4. Have you ever had any operations? | D. Yes, I had a mild heart attack last year. |
| 5. Now, are you taking any medications? | E. Well, I've got high blood pressure, and I'm here for some tests. |
| 6. Do you have any allergies to any medications? | F. Yes, my doctor put me on some blood pressure tablets after my heart attack. |
| 7. Can you tell me the name of your next of kin? | G. yes, it's Doreen Mary Chad. |

PUT YOUR PRETEST SCORE ON PAGE 9

3 [UNIT 1]

Warming Up!

Look at the picture and listen to the patients describing their problems. Decide which one is speaking.



1. Person _____.
2. Person _____.
3. Person _____.
4. Person _____.
5. Person _____.

Vocabulary

The admission procedure

Complete the sentences with the words below.

a triage nurse	treatment
an initial assessment	a priority
life-threatening	waiting room
registration	cubicle

1. Take a seat in the _____.
2. The first nurse you meet will be a specialist called _____.
3. This nurse will make _____ of your problem.
4. This helps decide who is _____.
5. A patient with a _____ condition will see a doctor immediately.
6. A nurse will get personal details from you and fill in a hospital _____ form.
7. When there is a free _____, a doctor will see you.
8. The doctor will decide on the _____.

Task 1



A: Read the following patient record form. As you listen, complete the form.

PATIENT RECORD FORM

Last name _____

First name _____

Gender (Sex) Male Female

DOB _____

Place of birth _____

Occupation _____

Marital status _____

Relatives _____

Contact number _____

Smoking intake _____

Alcohol intake _____

Reason for admission _____

Family history _____

Mental illness Tuberculosis Diabetes

HIV/AIDS Other(s) _____



B: Listen again and complete these questions that the nurse asks.

1. What _____ you?
2. _____ date of birth?
3. _____ you born?
4. _____ do you smoke a _____?
5. _____ allergic to _____?
6. _____ your _____ family _____ from any of the following?

5 [UNIT 1]

Task 2



A: Listen to the ward nurse taking observations and put a tick (✓) in the instructions you hear.

- 1. Stand on the scales, please.
- 2. Open your mouth, please.
- 3. Bend your leg, please.
- 4. Turn your head to one side, please.
- 5. Bend your arm, please.
- 6. Roll up your sleeve, please.
- 7. Put your arm out straight, please.
- 8. Hold out your hand, please.



B: Listen again to the nurse taking observations and record the information on the Observation Chart below.



OBSERVATIONS CHART

BP ___ / ___ T ___	Full Name: Phillip Bracknell Preferred name: Mr. Bracknell DOB: 28/5/1958 Physician: P A Watson Hosp. No: 897635 M
P ___ Wt ___ kg.	
RR ___ O ₂ SATS ___ %	



Language Awareness

Past Simple vs. Past Continuous

The Past Simple is used to refer to:

1. completed actions or events that happened at a particular time in the past.

I felt terrible when I got home last night.

2. actions that were habitual or repeated over a period of time.

Whenever I slipped on the floor my knees hurt.



The Past Continuous is used to refer to:

actions or events in progress when another action took place.



I was riding my bike when a cat ran in front of me and I fell off.



He cut her finger when he was preparing food.

Exercise

Describe the following sentences in *past simple* or *past continuous* with the verbs given.

Example: When he was working, he broke his arm. (break, work)

1. My son _____ a firework when it _____ and _____ his hand. (explode, hold, burn)
2. I _____ of the car. My dad _____ the door and _____ my fingers. (get out, break, close)
3. My mum _____ in the bathroom. She _____ and _____ her head. (hit, fall, get dressed)
4. I _____ to music, when suddenly I _____ a whistling in my ear and I _____ deaf. (hear, go, listen)
5. I _____ in the park, and a man _____ me and _____ me. (punch, chase, run)

7 [UNIT 1]

Posttest: Unit 1

Don't forget to put your score in the score table!

Part 1. Listen to a conversation between the ward nurse and a patient. Mark the following statements either True or

False.

- | | | |
|---|-------------------------------|--------------------------------|
| ✚ The nurse is in a hurry. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✚ The nurse explains the nurse call button. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✚ The nurse checks if the patient can walk to the bathroom. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✚ The nurse introduces himself to the patient. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✚ The nurse knows the patient's name. | <input type="checkbox"/> True | <input type="checkbox"/> False |

Part 2. Listen to another conversation between a patient and a nurse. Mark the statements either True or False.

- | | | |
|---|-------------------------------|--------------------------------|
| ✚ The nurse explains the nurse call button. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✚ The nurse introduces himself to the patient. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✚ The nurse knows the patient's name. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✚ The nurse is in a hurry. | <input type="checkbox"/> True | <input type="checkbox"/> False |
| ✚ The nurse checks if the patient can walk to the bathroom. | <input type="checkbox"/> True | <input type="checkbox"/> False |

Part 3. Listen to the conversation between Shona and Mrs. Chad and match the questions (1-7) to the answer (a-g).

- | | |
|---|--|
| 1. Can you tell me your full name, please? | A. yes, it's Doreen Mary Chad. |
| 2. Can you tell me why you're here today? | B. No, I'm very lucky. I never have. |
| 3. Have you had any serious illnesses in the past? | C. Yes, I had a mild heart attack last year. |
| 4. Have you ever had any operations? | D. It's my son, Jeremy. Jeremy Chad. |
| 5. Now, are you taking any medications?
tablets after my heart attack. | E. Yes, my doctor put me on some blood pressure |
| 6. Do you have any allergies to any medications? | F. Well, I've got high blood pressure, and I'm here for
some tests. |
| 7. Can you tell me the name of your next of kin? | G. Not that I know of. |

PUT YOUR POSTTEST SCORE ON PAGE 9

SOLUTION

Pretest

Part 1 T
T
T
T
F

Part 2 F
F
F
F
T

Part 3 1 G
2 E
3 D
4 B
5 F
6 A
7 C

Warming Up

1. C
2. A
3. B
4. D
5. E

Vocabulary

1. waiting room
2. a triage nurse
3. an initial assessment
4. a priority
5. life-threatening
6. registration
7. cubicle
8. treatment

Task 1

A: Hussein
Mustapha
✓ Male
01/09/82 or 01-09-1982
Karachi, Pakistan
A painter
Single
Yusuf
07-709-401-229
Yes
No
Concussion
Mother's parents (*grandparents*)
✓ Diabetes

B: 1. What happened to you
2. What is your date of birth?
3. When were you born?
4. How many do you smoke a day?
5. Are you allergic to anything?
6. Do any of your close family suffer from any of the following?

9 [UNIT 1]

Task 2

A:	1	B:	BP <u>120/75</u>	T <u>37³</u>
	4		P <u>68</u>	Wt <u>78</u> kg.
	6		RR <u>16</u>	O ₂ SATS <u>98</u> %
	7			

Language Awareness

1. was holding, exploded, burned
2. was getting out, closed, broke
3. was getting dressed, fell, hit
4. was listening, heard, went
5. was running, was chasing, punched

Posttest

Part 1	F	Part 2	F	Part 3	3 C
	T		F		4 B
	T		F		5 E
	T		T		6 G
	T		F		7 D

SCORE TABLE

PRETEST	PART 1		POSTTEST	PART 1	
	PART 2			PART 2	
	PART 3			PART 3	
	Total score			Total score	

Checklist

Self-assess unit's objectives by marking ✓ in the □ provided.

- I could record general information in a patient record form.
- I acknowledged general examination and was able to record vital sign.
- I could use **The Past Simple** and **The Past Continuous** to describe past events.

Audioscript of Unit 1: What happened to you?**PRETEST****Part 1**

S = Stephen, MC = Mr. Connolly

S: Hello. It's Mr. Connolly isn't it?

MC: Yes. That's right.

S: My name's Stephen. I'm looking after you today.

MC: Oh, Stephen. Right.

S: I just wanted to make sure you know where everything is. Then I'll come back and ask you some questions.

MC: Oh, all right.

S: I see you already have your pajamas on.

MC: Yes.

S: That's good. Here's the nurse call. Just press the button if you need some help.

MC: Oh, all right.

S: The bathroom is outside on your left.

MC: Er... OK.

S: Do you need help to walk to the bathroom?

MC: Yes, I'm a bit unsteady on my feet.

MC: That's OK. Just call me and I will help you.

MC: Thanks, Stephen.

S: Is there anything else you need?

MC: Er, no I'm fine. Thanks.

S: All right. I'll be back to ask some questions after your lunch.

MC: Right.

Part 2

N = Nurse, P = Patient

N: All right now. Er... what's your name?

P: It's Alan Bennett.

N: Bennett?

- P:** Yes.
- N:** Oh, yeah. Here is it. I've got few things I have to tell you.
- P:** Oh, all right.
- N:** OK. You know about the nurse call?
- P:** Not really.
- N:** Well, it's here.
- P:** Oh, right.
- N:** The bathroom's out to the left OK?
- P:** Er...OK.
- N:** Look, I'm a bit busy now. I'll finish this later. All right?
- P:** Er...yes.

Part 3

S = Shona, Mrs. C = Mrs. Chad.

- S:** Right, let's get started. Would you mind if I check out some details first?
- Mrs. C:**No, not at all. What would you like to know?
- S:** [*smiles*] I'd just like to check your name and date of birth and see if your identity bracelet is correct. Can you tell me your full name please?
- Mrs. C:**Yes, it's Doreen Mary Chad and my date of birth is the fifth of June nineteen twenty-three. Quite a while ago, isn't it?
- S:** [*smiles and laughs*] Not so long ago. Time goes very fast when you're busy, doesn't it? Right now, let's see. Doreen Mary Chad. C-H-A-D. That's correct, isn't it?
- Mrs. C:**Yes, that's right. Chad with a 'd'.
- S:** And your date of birth is the fifth of June nineteen twenty-three.
- Mrs. C:**Yes.
- S:** All right. Can you tell me why you're here today?
- Mrs. C:**Well, um, I've got high blood pressure, and I'm here for some tests. My doctor asked me to come here to see what's going on.
- S:** OK. Now, I'd like to ask you about your past medical history. Have you had any serious illnesses in the past?
- Mrs. C:**Yes, I had a mild attack last year. It was quite frightening.

S: Yes, I'm sure it was. Now, er, what about past surgical history? Have you ever had any operations?

Mrs. C:No, I'm very lucky. I never have.

S: [smiles] That is lucky. Now, are you taking any medications at the moment?

Mrs. C:Yes, my doctor put me on some blood pressure tablets after my heart attack.

S: Do you know what they're called?

Mrs. C:I don't know, but I've got them here with me. I was told to bring them.

S: Mm. That's good. Do you think you can show them to me, please?

Mrs. C:Yes, I can. I've got them somewhere in my bag. Here they are. I take them in the morning with breakfast.

S: Right, that's fine. You're taking *Metaprolol* to lower your blood pressure. I'll just write down the name of the medication on the admission form. Metaprolol. Do you have any allergies to any medications?

Mrs. C:Not that I know of.

S: Um. What about food allergies? Any food which doesn't agree with you?

Mrs. C:No, no, nothing like that.

S: Good. [smiles] Are you allergic to sticking plaster or iodine?

Mrs. C:No, I've never had any problems before.

S: All right. Can you tell me the name of your next of kin?

Mrs. C:It's my son, Jeremy. Jeremy Chad.

S: Thanks, That's all for me. I'll leave you here for a minute while I get the admitting doctor to come and see you. Are you comfortable?

Mrs. C:Yes, thanks. I'm quite all right here.

Warming Up!

1. I was at a party, and one of my friends gave me a little white tablet. I'd had a few drinks and I was feeling good, and I took it, even though I didn't know what it was. It made me feel, like, really weird. I could see and hear really strange things, and it scared me. I still don't feel normal today, and I'm very worried.

2. It's not due until next month, but when I was washing up this morning there was a little blood. It worried me. Then I got these pains.
3. I was working high up on a ladder. My foot slipped and I fell. I hit my head but there's no blood and I don't feel too bad.
4. I was walking by the river, and I think I stepped on it and it bit me. I don't know what type it was but it was long and silver with a black head.
5. I was looking in the mirror and I saw this big spot on my face. I checked it on the Internet and I'm sure I've got cancer. Do you think I'm going to die?

Task 1

M=Mustapha, N=Nurse

N: Mustapha, isn't it?

M: Yes, that's right.

N: So, what happened to you?

M: I was working on the ladder. It was raining and I slipped and fell.

N: Did you hit your head?

M: Yes I saw stars and felt sick at first. But now it's ok.

N: I see. You may have concussion. First, I'll take down your details and fill in this form. So, what's your surname?

M: It's Hussein.

N: Can you spell that for me?

M: H-U-double-S-E-I-N.

N: What's your occupation?

M: I'm a painter.

N: Right. What's your date of birth?

M: First of the ninth, eighty- two.

N: One, nine, eighty-two...and where were you born?

M: Karachi, Pakistan.

N: What's your marital status?

- M:** Sorry?
- N:** Are you married?
- M:** No, I'm single.
- N:** And you have a contact telephone number for your next of kin?
- M:** 07709-401229-it's my brother, Yusuf.
- N:** Do you smoke?
- M:** Yes.
- N:** How many do you smoke a day?
- M:** Twenty a day.
- N:** Uh huh. Do you drink?
- M:** No.
- N:** Right. Are you allergic to anything?
- M:** No
- N:** Now, family history. Does any of your close family suffer from any of the following-mental illness?
- M:** No
- M:** Diabetes?
- M:** My mother's parents are both diabetic.
- N:** Maternal grandparents... diabetes. Tuberculosis?
- M:** No.
- N:** HIV/AIDS?
- M:** No.

Task 2

S = Stephen, MB = Mr. Bracknell

- S:** Good morning, Mr. Bracknell. I'm here to do your admission Obs.
- MB:** Obs?
- S:** Observations. It's your weight, temperature, pulse, and respirations. Also, your blood pressure and oxygen sats – that's the amount of oxygen in your blood.
- MB:** Oh, right.
- S:** I'll weigh you first. Can you stand on the scales, please?
- MB:** Yeah, sure. What's my weight?

- S:** Let me see. It's 78 kilos.
- MB:** Oh well, that's all right.
- S:** Yes, that's fine. Now, I'm going to take your temperature.
- MB:** OK.
- S:** I'm going to take it in your ear with this tympanic thermometer.
- MB:** That's new.
- S:** Can you turn your head to one side for me, please?
- MB:** Sure. This side?
- S:** That's fine. I'll just wait for the beep. Right! It's thirty-seven three.
- MB:** Now what?
- S:** I'll put the blood pressure cuff on. Can you roll up your sleeve please?
- MB:** Sure, no problem.
- S:** Can you put your arm out straight? That's it. I'll put on the blood pressure cuff.
- MB:** That's for my blood pressure?
- S:** Yes. The machine will read your blood pressure and pulse.
- MB:** OK. What's the other lead for?
- S:** It reads the amount of oxygen in your blood.
- MB:** Oh, yes, I remember. Oxygen sats, right?
- S:** Yes very good. Can you hold your hand, please?
- MB:** This hand?
- S:** That's fine. I'm going to clip the lead onto your finger so it'll give me a reading for oxygen sats.
- MB:** Mm. So how are my readings? Are they normal?
- S:** Let me see. Your BP's a hundred and twenty over seventy-five. That's quite normal.
- MB:** That's good. Is my pulse all right, too?
- S:** It's 68. That's fine.
- MB:** What about the oxygen?
- S:** Your oxygen sats are 98%. That's fine too. Now, I'll just finish by noting down your respirations - they were 16 breaths per minute. I counted them while...

POSTTEST***Part 1***

S = *Stephen*, **MC** = *Mr. Connolly*

S: Hello. It's Mr. Connolly, isn't it?

MC: Yes. That's right.

S: My name's Stephen. I'm looking after you today.

MC: Oh, Stephen. Right.

S: I just wanted to make sure you know where everything is. Then I'll come back and ask you some questions.

MC: Oh, all right.

S: I see you already have your pajamas on.

MC: Yes.

S: That's good. Here's the nurse call. Just press the button if you need some help.

MC: Oh, all right.

S: The bathroom is outside on your left.

MC: Er... OK.

S: Do you need help to walk to the bathroom?

MC: Yes, I'm a bit unsteady on my feet.

MC: That's OK. Just call me and I will help you.

MC: Thanks, Stephen.

S: Is there anything else you need?

MC: Er, no I'm fine. Thanks.

S: All right. I'll be back to ask some questions after your lunch.

MC: Right.

Part 2

N = *Nurse*, **P** = *Patient*

N: All right now. Er... what's your name?

P: It's Alan Bennett.

N: Bennett?

P: Yes.

N: Oh, yeah. Here is it. I've got few things I have to tell you.

- P:** Oh, all right.
- N:** OK. You know about the nurse call?
- P:** Not really.
- N:** Well, it's here.
- P:** Oh, right.
- N:** The bathroom's out to the left OK?
- P:** Er...OK.
- N:** Look, I'm a bit busy now. I'll finish this later. All right?
- P:** Er...yes.

Part 3

S = Shona, Mrs. C = Mrs. Chad.

- S:** Right, let's get started. Would you mind if I check out some details first?
- Mrs. C:**No, not at all. What would you like to know?
- S:** [*smiles*] I'd just like to check your name and date of birth and see if your identity bracelet is correct. Can you tell me your full name please?
- Mrs. C:**Yes, it's Doreen Mary Chad and my date of birth of birth is the fifth of June nineteen twenty-three. Quite a while ago, isn't it?
- S:** [*smiles and laughs*] Not so long ago. Time goes very fast when you're busy, doesn't it? Right now, let's see. Doreen Mary Chad. C-H-A-D. That's correct, isn't it?
- Mrs. C:**Yes, that's right. Chad with a 'd'.
- S:** And your date of birth is the fifth of June nineteen twenty-three.
- Mrs. C:**Yes.
- S:** All right. Can you tell me why you're here today?
- Mrs. C:**Well, um, I've got high blood pressure, and I'm here for some tests. My doctor asked me to come here to see what's going on.
- S:** OK. Now, I'd like to ask you about your past medical history. Have you had any serious illnesses in the past?
- Mrs. C:**Yes, I had a mild attack last year. It was quite frightening.
- S:** Yes, I'm sure it was. Now, er, what about past surgical history? Have you ever had any operations?

Mrs. C:No, I'm very lucky. I never have.

S: [smiles] That is lucky. Now, are you taking any medications at the moment?

Mrs. C:Yes, my doctor put me on some blood pressure tablets after my heart attack.

S: Do you know what they're called?

Mrs. C:I don't know, but I've got them here with me. I was told to bring them.

S: Mm. That's good. Do you think you can show them to me, please?

Mrs. C:Yes, I can. I've got them somewhere in my bag. Here they are. I take them in the morning with breakfast.

S: Right, that's fine. You're taking *Metaprolol* to lower your blood pressure. I'll just write down the name of the medication on the admission form. Metaprolol. Do you have any allergies to any medications?

Mrs. C:Not that I know of.

S: Um. What about food allergies? Any food which doesn't agree with you?

Mrs. C:No, no, nothing like that.

S: Good. [smiles] Are you allergic to sticking plaster or iodine?

Mrs. C:No, I've never had any problems before.

S: All right. Can you tell me the name of your next of kin?

Mrs. C:It's my son, Jeremy. Jeremy Chad.

S: Thanks, That's all for me. I'll leave you here for a minute while I get the admitting doctor to come and see you. Are you comfortable?

Mrs. C:Yes, thanks. I'm quite all right here.

Appendix D

Listening Comprehension Test
&
Test Marking Guide

Listening in English for Nursing Purposes

Listening Comprehension Test

Test Booklet

General Information

Time Allocation

The Listening Comprehension Test takes approximately 26 minutes. The exact length will vary depending on the length of the audio recording.

Test format and procedure

The Listening Comprehension Test has three parts as follows.

Part A:

In Part A, students listen to monologues describing five pictures which they are required to choose the best alternative for each picture.

Part B:

In Part B, students listen to ten statements which they are required to choose the best response for each statement.

Part C:

In Part C, students listen to a health professional giving a talk or lecture (monologue) on a health-related topic and/or a conversation between nurse and patient during which they are required to complete a range of open-ended and fixed-choice listening tasks.

Test topics

The topics of the test are of general medical interest and cover a wide variety of issues. They vary and may include content that is familiar to one particular health area. The language tasks and questions associated with the texts are designed to test language knowledge and skills of listening. The topics of all texts are designed to be comprehensible to any educated native speaker, or highly proficient non-native speaker, and this is regularly demonstrated through the trialing process (both internal and external). Therefore, correct responses cannot be simply 'predicted' because a candidate has experienced in that area.

The listening texts are retrieved from websites in which contents are familiar with health topics i.e. www.occupationalenglishtest.org created by the team of specialists from the University of Melbourne and www.english-test.net whose contents are presented to serve those who wish to practice listening skills of the TOEIC test. In response to feedback on initial topic ideas and drafts of materials, texts are refined and then question and response formats are validated by a group of experts. These are subjected to trialing, analysis and further refinement. A sample marking guide is also included.

Test task types

In Part A, all responses are expected to be in the form of choosing the best alternative describing the pictures.

In Part B, short answer questions (students are expected to choose a short answer to direct questions usually 'wh' type questions i.e., What, Who; Where, Why, When, How many, How etc.).

A range of task types are used in Part C of the Listening Comprehension Test including:

- Table/flow-chart/diagram completion (students fill in missing information in a table/flow-chart/diagram).
- Multiple choice response (students circle the correct alternative from list of options or check (tick) a number of items in a list according to the recording).

Test procedure

Each part (A, B, and C) contains about 5-10 minutes of recorded speech, separated into sections by pauses. A set of questions is attached to each section, indicated by headings and a question number. Students are expected to write their answers after and/or while listening.

Students will firstly hear (and be able to read at the same time) the instructions for Part A, for example, on page 2 of the test paper. Students are advised to spend 60 seconds looking through Part A. Then, students are directed to look at the example question and the correct response. The audio will continue and students will start doing the test in the following question.

During the test students will hear a narrator's voice advising them:

- which question they are about to hear, and
- when to read the following question.

Students will hear each recording ONCE only. The recording contains pauses to allow students time to write their answers. There are approximately 5 items of question in total of Part A.

At the beginning of Part B and Part C, likewise, students will hear and read instructions and be advised to spend 60 seconds to look through the paper test.

Test Assessment

This test is assessed against a detailed marking guide advised by the group of experts in the field of language assessment. Problematic scripts are dealt with as a group by an experienced assessor and all critical borderline scripts are double-marked.

Listening Test — Part A**Time allowed: 4.30 minutes**

Part A. In this part, you will hear four statements about a picture in your test book. When you hear the statements, you must select the one statement that best describes what you see in the picture. Then find the number of the question on your answer paper and mark your answer. The statements will not be printed in your test book and will be spoken **ONLY ONE TIME**.

Example

- (A) the dog is growling at the vet
- (B) there is a mirror hanging on the wall
- (C) the dog is standing on the floor
- ~~(D) the vet is listening to the dog's heart~~

The answer is (D). So you should select the answer (D) and mark it on your answer paper. Turn over now and look through part A.

Item 1.

- (A)
- (B)
- (C)
- (D)

Item 2.

- (A)
- (B)
- (C)
- (D)

Item 3.



- (A)
- (B)
- (C)
- (D)

Item 4.



- (A)
- (B)
- (C)
- (D)

Item 5.

- (A)
- (B)
- (C)
- (D)

END OF PART A

Listening Test — Part B**Time allowed: 2.30 minutes**

Part B. In this part of the test you will hear ten statements. As you listen, you must choose the best response for each statement. Turn over now and look quickly through part B. You have **ONE MINUTE** to do this.

Item 6**Listen and choose the best response.**

- 6.1
 A. Not at all, but don't tell it to anyone else.
 B. The sign-in sheet is in the other room.
 C. I'm sorry, but I can't find the pen.
- 6.2
 A. Story hour is from 10 to 11.
 B. At the end of the hall on the left.
 C. Noon tomorrow, at the latest.
- 6.3
 A. Yes, I can see it on the flat screen.
 B. It was about three weeks ago.
 C. At the First Street coffee shop.
- 6.4
 A. I think he ordered the pasta.
 B. He told me to type the report.
 C. At six p.m. in the dining hall
- 6.5
 A. Yes, it's in the conference room.
 B. No, I have to finish writing this article.
 C. Down the hall, third door on the right.
- 6.6
 A. She said she would start soon.
 B. I'm not that surprised!
 C. Yes, they're on 3rd Avenue.
- 6.7
 A. Yes, you can. Thanks.
 B. Not right now. Thank you.
 C. Ah yes! I'm looking for Mr. Parker.

6.8

A. Oh, never mind! I'm just looking.

B. I can't do it by myself thanks.

C. Yes, I'd appreciate it.

6.9

A. Why, yes I am.

B. No you're not.

C. Yes, he is.

6.10

A. You do!

B. I hadn't seen it.

C. I think I misplaced it.

END OF PART B

Listening Test — Part C**Time allowed: 18 minutes**

Part C. In this part of the test you will hear the talk and /or the conversation once only in sections. As you listen, you must answer the questions in the spaces provided on the answer paper. You may write as you listen and there will be pauses during the talk for you to complete your answers and to read the following question. Turn over now and look quickly through Part C. You have **ONE MINUTE** to do this.

Item 7**Listen and answer questions.**

7.1 What is being advertised?

- A. Heart medication
- B. An energy drink
- C. A cola beverage

7.2 Where can people buy Rev Up?

- A. In pharmacies
- B. In supermarkets
- C. Only online

7.3 What does the speaker claim about Rev Up?

- A. It will make you stronger.
- B. It will leave you tired.
- C. It works for five hours.

Item 8**Listen and answer questions.**

Symptoms of patients with heart problems include

chestpain

- _____
- _____
- _____
- _____

Patients also visit a cardiologist because of

high blood pressure

- _____
- abnormal _____
- _____

Item 9

Listen and complete the stages in the flow chart below.

EXERCISE NUCLEAR SCAN

Patient is _____ and also given _____ tracer
such as _____ or sestamibi.

Tracers move towards _____ in relation to

Images of patient taken using _____

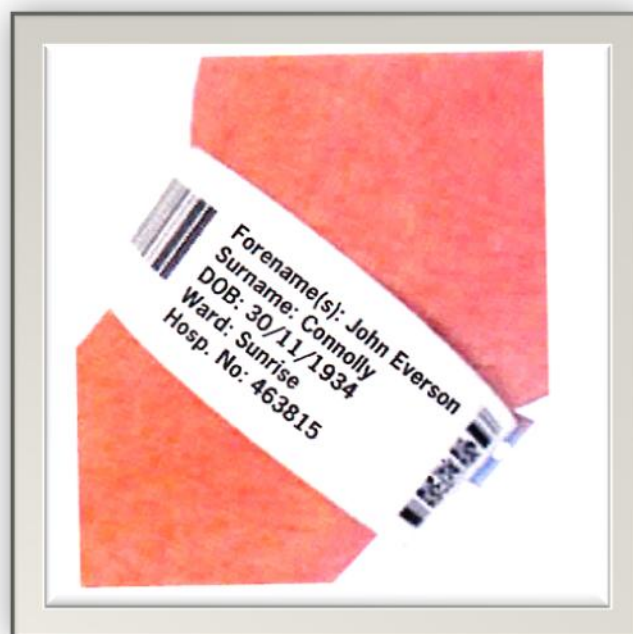
Images depict sections of the heart in _____

Image of patients with ischemia will show _____ _____	Image of patients with myocardial infarction will show _____ _____
---	--

Item 10

Listen to the conversation and check the information on the ID bracelet below.

Put a tick ✓ in provided and correct any false information.



Forename(s):	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect_____
Surname:	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect_____
Date of Birth (DOB):	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect_____
Ward:	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect_____
Hospital Number:	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect_____
Tag Color:	<input type="checkbox"/> Correct	<input type="checkbox"/> Incorrect_____

Adapted from: Allum, V. and McGarr, P. (2010). *Cambridge English for Nursing Pre-intermediate*. p.8. Cambridge, UK: Cambridge University Press.

Item 11**Listen and choose the best answer.**

- 11.1 “Functional” tests assess the effect of on the heart
- A. exertion
 - B. trauma
 - C. drugs
- 11.2 During an exercise ECG, ischemia will be signaled by a drop in
- A. blood pressure
 - B. heart rate
 - C. ST waves
- 11.3 One drawback of exercise ECGs is that they are
- A. prohibitively expensive
 - B. lacking in precision
 - C. less effective with males
- 11.4 According to the speaker, when an exercise ECG test is negative
- A. angina should still not be ruled out
 - B. chest pain is not related to angina
 - C. the patient is more at risk of angina

Item 12

Listen to the following talk about echocardiogram. Answer the questions by using alternatives provided. Two alternatives are additional.

- A. look at valves **AND** see (whether there are any) vegetations*
- B. not (as) reliable (as echocardiogram)*
- C. reduced left ventricular function **OR** left ventricular hypertrophy*
- D. pulmonary hypertension*
- E. valve disease*
- F. congenital defects*
- G. cardiac structure and function*
- H. ultrasound of the heart (using Doppler technology)*

12.1. How does the speaker define an echocardiogram?

12.2. What does the speaker believe an echocardiogram gives a “very good idea” about?

12.3. What are two causes of shortness of breath that might be seen on an echocardiogram?

12.4. On what grounds does the speaker criticize clinical evaluation parameters for diagnosing heart murmurs?

12.5. How might an echocardiogram be helpful in diagnosing endocarditis?

END OF PART C

END OF TEST

Listening in English for Nursing Purposes

Listening Comprehension Test

Test Marking Guide

Note: Variations in vocabulary and grammar are acceptable, provided the meaning is the same as the answers given in the marking guide.

A slash '/' indicates alternative answers e.g. 'monitors urine at home/with sticks' means 'monitors urine at home' **OR** 'monitors urine with sticks'.

Brackets '(.....)' indicate optional details e.g. '(reading) glasses for 20 years' means 'glasses for 20 years' is enough.

Answer key Part A

Total marks: 5 marks

Example: D

Item 1: C

Item 2: B

Item 3: B

Item 4: B

Item 5: A

Answer key Part B

Total marks: 10 marks

Item 6

- 6.1 A. Sure, but don't tell it to anyone else.
- 6.2 C. Noon tomorrow, at the latest.
- 6.3 B. It was about three weeks ago.
- 6.4 A. I think he ordered the pasta.
- 6.5 B. No, I have to finish writing this article.
- 6.6 B. I'm not that surprised!
- 6.7 C. Ah, yes! I'm looking for Mr. Parker.
- 6.8 A. Oh, never mind! I'm just looking.
- 6.9 A. Why, yes I am!
- 6.10 C. I think I misplaced it.

Answer key Part C

Total marks: 35 marks

Item 7 (*1 mark for each of the following)

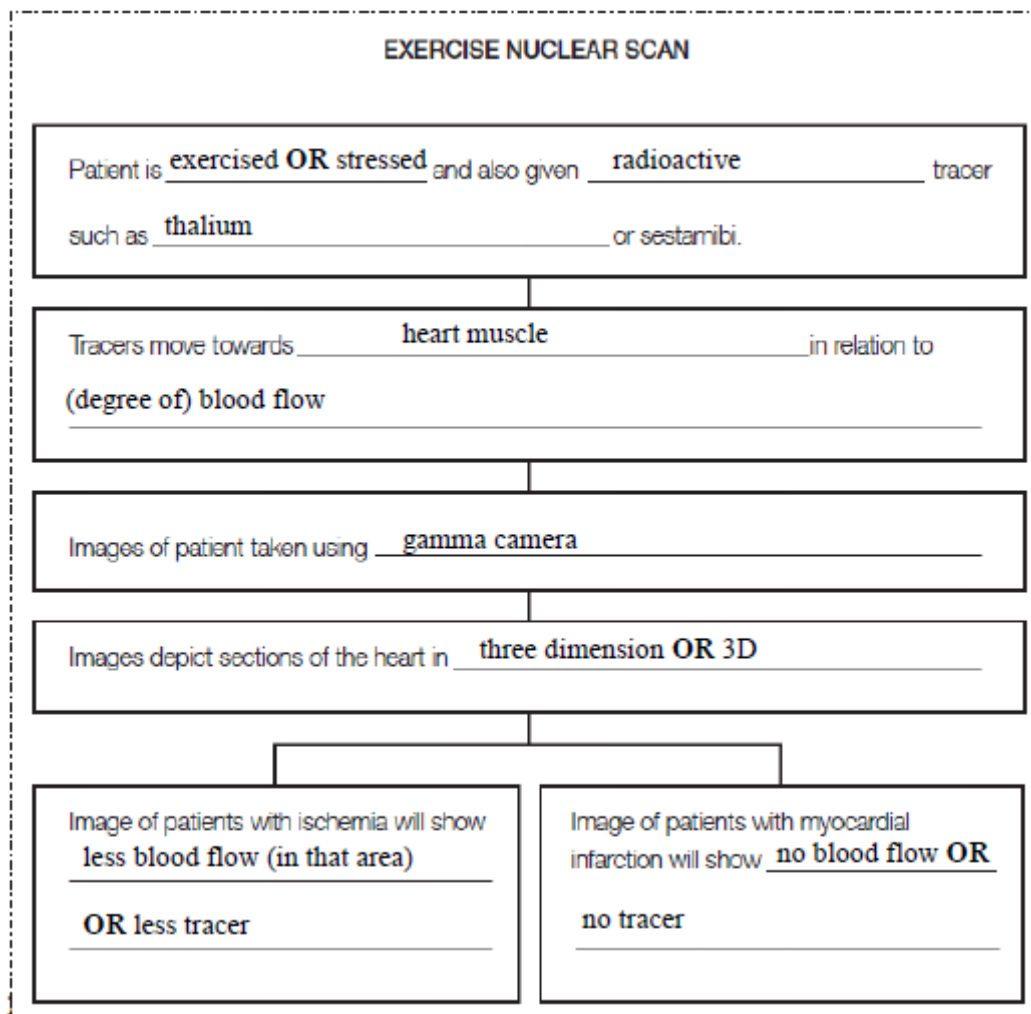
7.1 B

7.2 B

7.3 C

Item 8 (*1 mark for each of the following)

- shortness of breath **OR** S.O.B.
- palpitations
- syncope
- oedema
- heart murmur
- abnormal lipid (profile)
- assessment of cardiac/heart attack risk **OR** assessment

Item 9 (*1 mark for each of the following)

Item 10 (*1 mark for each of the following)

Forename(s): <u>John Everson</u>	<input checked="" type="checkbox"/> Correct	<input type="checkbox"/> Incorrect_____
Surname: <u>Connolly</u>	<input checked="" type="checkbox"/> Correct	<input type="checkbox"/> Incorrect_____
Date of Birth (DOB): <u>30/11/1934</u>	<input checked="" type="checkbox"/> Correct	<input type="checkbox"/> Incorrect_____
Ward: <u>Sunrise</u>	<input checked="" type="checkbox"/> Correct	<input type="checkbox"/> Incorrect_____
Hospital Number: <u>463815</u>	<input type="checkbox"/> Correct	<input checked="" type="checkbox"/> Incorrect <u>463817</u>
Tag Color: <u>White</u>	<input type="checkbox"/> Correct	<input checked="" type="checkbox"/> Incorrect <u>Red</u>

Item 11(*1 mark for each of the following)

- 11.1 A
- 11.2 C
- 11.3 B
- 11.4 A

Item 12 (*1 mark for each of the following)

- 12.1 ultrasound of the heart (using Doppler technology)
- 12.2 cardiac structure and function
- 12.3 any **two** of the following
 - *reduced left ventricular function **OR** left ventricular*
 - *hypertrophy*
 - *pulmonary hypertension*
 - *valve disease*
 - *congenital defects*
- 12.4 not (as) reliable (as echocardiogram)
- 12.5 look at valves **AND** see (whether there are any) vegetations

Listening Script: Part A

Listening in English for Nursing Purposes-Listening Comprehension Test.

Listening Comprehension Test. This test has three parts: Part A, Part B, and Part C.

Part A. In this part, you will hear four statements about a picture in your test book. When you hear the statements, you must select the one statement that best describes what you see in the picture. Then find the number of the question on your answer paper and mark your answer. The statements will not be printed in your test book and will be spoken only one time.

Example



- A. the dog is growling at the vet
- B. there is a mirror hanging on the wall
- C. the dog is standing on the floor
- D. the vet is listening to the dog's heart

The answer is (D). So you should select the answer (D) and mark it on your answer paper. Turn over now and look through part A.

PAUSE: 60 SECONDS

Item 1



- A. the patients' eyes are closed.
- B. the dentist is wearing a yellow glove.
- C. the dentist is working on the patients' lower teeth
- D. the dentist is working on the patients' upper teeth

Item 2



- A. there are only three people wearing masks.
- B. everyone in the theatre is wearing a mask.
- C. the person on the left is using a computer.
- D. everyone is wearing a white uniform.

Item 3



- A. The older man is obviously not happy with his glasses.
- B. The optician is holding the pair of glasses with both hands.
- C. The older man has a black beard.
- D. The optician is wearing glasses.

Item 4



- A. the patient is having a tooth pulled.
- B. the people are looking at the monitor.
- C. everyone in the picture is wearing a mask.
- D. the patient is a young boy.

Item 5



- A. You can see a lab microscope in the picture.
- B. The man is not wearing glasses.
- C. The man is not wearing a watch.
- D. The two people are probably working at a drugstore.

PAUSE: 10 SECONDS

End of listening comprehension test part A.

Listening Script: Part B

Part B. In this part of the test you will hear ten statements. As you listen, you must choose the best response for each statement. Turn over now and look quickly through part B. You have one minute to do this.

PAUSE: 60 SECONDS

Now listen and choose the best response.

- 6.1 *Do you mind if I use your password to sign in?*
A. Not at all, but don't tell it to anyone else.
B. The sign-in sheet is in the other room.
C. I'm sorry, but I can't find the pen.
- 6.2 *When is the deadline for the city-hall expansion story?*
A. Story hour is from 10 to 11.
B. At the end of the hall on the left.
C. Noon tomorrow, at the latest.
- 6.3 *Where did you last see Ms. Montgomery?*
A. Yes, I can see it on the flat screen.
B. It was about three weeks ago.
C. At the First Street coffee shop.
- 6.4 *What did the supervisor have for dinner?*
A. I think he ordered the pasta.
B. He told me to type the report.
C. At six p.m. in the dining hall
- 6.5 *Aren't you supposed to be at the staff meeting?*
A. Yes, it's in the conference room.
B. No, I have to finish writing this article.
C. Down the hall, third door on the right.
- 6.6 *Zeus Inc. has announced its buying Mercury Tech!*
A. She said she would start soon.
B. I'm not that surprised!
C. Yes, they're on 3rd Avenue.

- 6.7 *How can I help you?*
A. Yes, you can. Thanks.
B. Not right now. Thank you.
C. Ah yes! I'm looking for Mr. Parker.
- 6.8 *What can I do for you?*
A. Oh, never mind! I'm just looking.
B. I can't do it by myself.
C. Yes, I'd appreciate it.
- 6.9 *You're Tad Johnston, aren't you?*
A. Why, yes I am!
B. No you're not.
C. Yes, he is.
- 6.10 *You still have my business card, don't you?*
A. You do!
B. I hadn't seen it.
C. I think I misplaced it.

PAUSE: 10 SECONDS

End of listening test part B.

Listening Script: Part C

Part C. In this part of the test you will hear the talk and /or the conversation once only in sections. As you listen, you must answer the questions in the spaces provided on the answer paper. You may write as you listen and there will be pauses during the talk for you to complete your answers and to read the following question. Turn over now and look quickly through Part C. You have one minute to do this.

PAUSE: 60 SECONDS

Now read questions in item seven

PAUSE: 20 SECONDS

Now listen and answer questions.

Feeling run down? Low on energy? Like you'll never make it through the day? Then it's time for you to Rev Up. One package of Rev Up contains enough vitamins and

minerals to energize you for five straight hours. And the best part is, you won't come crashing down even more tired than when you started. Mix amazing Rev Up with a glass of cold water, and you'll feel energized and ready to tackle the busy day ahead of you. Rev Up contains more than 100 percent of the vital nutrients your body needs to help you think clearly and perform at maximum efficiency. Rev Up comes in three great flavors -- grape, lime and cherry -- and is available at supermarkets throughout the Tri-County area. When you're down, Rev it Up, with Rev Up.

PAUSE: 60 SECONDS

Now read the questions in item eight.

PAUSE: 20 SECONDS

Now listen and answer questions.

Patients who present with heart problems present with a variety of symptoms, such as chest pain, shortness of breath, palpitations, syncope, and oedema. In addition patients come along because a problem has been picked up ... by another doctor, such as high blood pressure, a heart murmur, an abnormal lipid profile, or patients present for assessment of cardiac risk to see whether they're likely to have a heart attack.

PAUSE: 60 SECONDS

Now read questions in item nine.

PAUSE: 20 SECONDS

Now listen and complete the stages in the flow chart below.

Another test that's very accurate and is widely done is an exercise nuclear scan. Here the patient is, ah, exercised in the same way as in the previous tests, but is given a radioactive tracer. The tracers that are commonly used are thallium, or a more recent tracer called sestamibi, which is bound to radioactive technetium. These tracers go to the heart muscle in proportion to the degree of blood flow. So the test, so usually the patient is stressed, and then at the height of stress is given an injection of the tracer.

The patient is then placed under a gamma camera, and images are taken. These days, the images ah.. can be done ah.. in the same form as a CT scan, so slices of the heart in all three dimensions can be obtained. In a patient who's..who has ischemia, there'll be less blood flow in the in that area and therefore less tracer, and this will show up on the gamma camera picture. In a patient who's had a myocardial infarction, however, there's obviously no blood flow to that area and so that area will remain without tracer.

PAUSE: 60 SECONDS

Now read questions in item ten

PAUSE: 20 SECOND

Now listen to the conversation and check the information on the ID bracelet below. Put a tick in a square provided and correct any false information.

Stephen: Mr. Connolly, have you got an ID bracelet on?

Mr. Connolly: Yes. Here it is.

Stephen: I just need to check your personal details. Can I look at your ID bracelet, please?

Mr. Connolly: Certainly.

Stephen: Can you tell me your full name, please?

Mr. Connolly: John Everson Connolly.

Stephen: Right. That's correct on the bracelet. What's your date of birth, please?

Mr. Connolly: The 30th of November, 1934.

Stephen: 30th of November 1934, right. Now your hospital number is four, six, three, eight, one, seven. I'll just check that on the identity bracelet. Four, six, three, eight, one, five. Oh no, that's wrong.

Mr. Connolly: Oh dear, better change that, then. Anything else?

Stephen: One more question. Do you have any allergies?

Mr. Connolly: Yes I do. I'm allergic to morphine. It makes me very sick.

Stephen: Oh. If you're allergic to something, you should have a red identity bracelet. I'll change that for you right away.

Mr. Connolly: Oh, thanks, Stephen. I forgot to tell them about the allergy.

Stephen: That's OK, Mr. Connelly. That's why we like to check everything carefully.

PAUSE: 60 SECONDS

Now read questions in item eleven.

PAUSE: 20 SECONDS

Listen and choose the best answer.

So the next step is to do some sort of test to look ah for the cause of the chest pain, and most of the tests are what are called functional tests which see th..the effect of stress or exercise on the heart, and see whether that changes something which can give us a diagnosis. The simplest test is an exercise ECG. The patient exercises on a bicycle or a treadmill while an ECG is being recorded. The, ah, parameters that are measured are the heart rate and blood pressure, and then changes on the ECG, in particular ST depression. ST depression occurs because ischemia occurs during exercise. This is a relatively simple test and inexpensive. The main problem is that its sensitivity and specificity are probably only of the order of seventy to eighty percent, and seem to be a lot lower in women. Remembering that the test can be inaccurate, means that ev..a patient who has a very good story of chest pain, that sounds like angina and has multiple risk factors, should still be considered to have angina, even if the exercise test is negative.

PAUSE: 60 SECONDS

Now read question in item twelve.

PAUSE: 20 SECONDS

Listen to the following talk about echocardiogram. Answer the questions by using alternatives provided. Two alternatives are additional.

The other problems that patients present with, such as shortness of breath or palpitations, or a heart murmur, are best looked at by doing an echocardiogram. An

echocardiogram is an ultrasound of the heart and is done using a, often using Doppler ... technology, and this gives the ... a ah, very good idea of cardiac structure and function ... in fact it's the best test for structure and function. A particular use of echocardiography is in patients who present with shortness of breath. The question is, is the shortness of breath due to heart failure? Well, the echo is really the best test. You should look for reduced left ventricular function, or left ventricular hypertrophy, but other..other things can cause shortness of breath that can be seen on an echo, such as pulmonary hypertension, valve disease, or congenital defects. Echocardiography is the definitive test for diagnosing heart murmurs. These days, we would not rely just on the stethoscope to diagnose a heart murmur, and we would definitely want to use an echo to measure the severity of any valve lesion, rather than just on clinical parameters, which are not as reliable. In hypertension, the echo is helpful because it can measure left ventricular hypertrophy. For arrhythmias, particularly atrial fibrillation, the echo can look for associated cardiac defects. A particular, ah, issue is the question of whether a patient has endocarditis. The patient who presents with a fever plus a heart murmur, or with a fever of unknown origin, may well have endocarditis – an infection on the heart valves – and an echocardiogram can be very helpful to look at the valves and to see whether there are any vegetations.

PAUSE: 60 SECONDS

End of listening test part C.

End of test.

Appendix E

**Item Analysis of the Listening Comprehension Test to
find degree of difficulty (p) and power of
discrimination (r)**

Degree of difficulty (p) and power of discrimination (r) of the listening comprehension test.

Item No.	degree of difficulty (p)	power of discrimination (r)	Definition
1.	0.720	0.304	Rather easy and possible for improvement. Appropriate to use.
2.	0.760	0.304	Rather easy and possible for improvement. Appropriate to use.
3.	0.720	0.179	Rather easy and may discard or review in depth again.
4.	0.680	0.571	Rather easy and should to retain. Appropriate to use
5.	0.560	0.589	Rather easy and should to retain. Appropriate to use
6.1	0.600	0.321	Moderate difficult and possible for improvement. Appropriate to use.
6.2	0.440	0.482	Moderate difficult and should retain. Appropriate to use.
6.3	0.640	0.589	Rather easy and should retain. Appropriate to use.
6.4	0.280	0.482	Rather difficult and need to retain. Appropriate to use
6.5	0.600	0.464	Moderate difficult and should retain. Appropriate to use
6.6	0.640	0.714	Rather easy and should retain. Appropriate to use
6.7	0.880	0.286	Too easy and need to check/review. Appropriate to use
6.8	0.840	0.286	Too easy and need to check/review. Appropriate to use
6.9	0.040	0.125	Too difficult and should discard or review in depth again.
6.10	0.600	0.464	Moderate difficult and should retain. Appropriate to use.
7.1	0.440	0.339	Moderate difficult and possible for improvement. Appropriate to use.
7.2	0.480	0.339	Moderate difficult and possible for improvement. Appropriate to use
7.3	0.640	0.196	Rather easy but may discard or review in depth again.
8	0.480	0.482	Moderate difficult and should retain. Appropriate to use.
9	0.560	0.589	Moderate difficult and should retain. Appropriate to use.
10	0.800	0.429	Rather easy and should retain. Appropriate to use

11.1	0.720	0.714	Rather easy and should retain. Appropriate to use.
11.2	0.800	0.179	Rather easy and may discard or review in depth again.
11.3	0.280	0.089	Rather easy and may discard or review in depth again.
11.4	0.480	0.607	Moderate difficult and should retain. Appropriate to use.
12.1	0.480	0.339	Moderate difficult and possible for improvement. Appropriate to use.
12.2	0.840	0.143	Too easy but may discard or review in depth again.
12.3	0.360	0.607	Rather difficult and should retain. Appropriate to use.
12.4	0.680	0.464	Rather easy and should retain. Appropriate to use.
12.5	0.800	-0.017	Rather easy and should definitely discard
13.1	0.640	0.161	Rather easy and may discard or review in depth again.
13.2	0.920	0.143	Too easy and may discard or review in depth again.
13.3	0.320	0.089	Rather difficult and should discard or review in depth again.
13.4	0.200	-0.161	Too difficult and should definitely discard
13.5	0.560	0.071	Moderate difficult and may discard or review in depth again.
13.6	0.200	-0.429	Too difficult and should definitely discard.
13.7	0.440	-0.179	Moderate difficult and should definitely discard.
13.8	0.960	0.000	Too easy but may discard or review in depth again.
13.9	1.000	0.000	Too easy but may discard or review in depth again.
13.10	0.000	0.000	Very difficult and should definitely discard.

These results have been sorted by item number

Number of items = 40
Mean Item difficulty = 0.577
Mean Item discrimination = 0.282
Mean Point Biserial = 0.257
KR20 (Alpha) = 0.660

Appendix F

**The checklist for the experts to validate the
questionnaire form**

**Item-objective congruence (IOC)
for ESP experts and language assessment**

Thesis Title (In English): A Development of Self-Instructional Materials (SIMs) to Enhance English Listening Skills for Student Nurses

(In Thai): การพัฒนาสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาล

Name of student: Krerk Chetsadanuwat **Student ID:** 5287510720

Program: Master of Arts (English as an International Language)

Department/Discipline: English as an International Language (Interdisciplinary/ International Program)

Principal Research Advisor: Associate Professor Sumalee Chinokul, Ph.D.

Contact Number: 084-6511247 **Email address:** avene_84@hotmail.com

Objectives of the Study

5. To investigate the needs of English listening skills of student nurses.
6. To develop self-instructional materials on English listening skills for student nurses.
7. To examine the effectiveness of the developed self-instructional materials.
8. To study the attitude of the students towards the developed self-instructional materials.

Direction

The index of item-objective congruence (IOC) is used for evaluating content validity at the item development stage of the questionnaire to assess the needs of English listening skills and self-instructional materials of student nurses.

This IOC form consists of 2 parts: 4 pages as follows.

Part 1: Personal Information of the expert

Part 2: Item-objective congruence (IOC) of items of question used in the questionnaire

Attached Document(s): The form of questionnaire to assess the needs of English listening skills and self-instructional materials of student nurses

Part 1: Personal Information of the expert

Name.....

Position.....Work Place.....

Educational background

Graduate school.....

Part 2: Item-objective congruence (IOC) of items of question used in the questionnaire

Please rate the appropriateness of each items listed by marking “√” in provided as follows:

+1 = the item is appropriate to be used;

0 = I am not sure; and

-1 = the item is not appropriate to be used.

(In case -1 is marked, please give any comments and/or suggestions)

No.	Items to be rated	Level of appropriateness			
		+1	0	-1	Comments and/or Suggestions
1	Objectives of the questionnaire. <i>(Please look over the attached document)</i>				
2	The congruence of data to be obtained. 2.1 Gender 2.2 Age 2.3 Length of studying English 2.4 Level of English listening skills as perceived by the correspondent 2.5 Types of media used to self-study English listening 2.6 Approaches used for improving English listening skills				

No.	Items to be rated	Level of appropriateness			
		+1	0	-1	Comments and/or Suggestions
3	<p>Skills of English listening for student nurses.</p> <p>3.1 Recognize vocabularies related to the health science.</p> <p>3.2 Retain chunks of language in short-term memory.</p> <p>3.3 Recognize reduced forms of words e.g. <i>I'll, I gonna</i>.</p> <p>3.4 Recognize typical word-order patterns e.g. <i>so long!</i> or <i>I couldn't agree more</i>.</p> <p>3.5 Recognize stress and rhythm patterns, tone patterns, or intonation contours.</p> <p>3.6 Detect key words such as those identifying topics and main ideas</p> <p>3.7 Guess meaning from context.</p> <p>3.8 Understand inferred information e.g. speaker's attitude or intention.</p> <p>3.9 Recognize basic syntactic patterns.</p> <p>3.10 Detect sentence constituents such as subject, verb, object, and prepositions</p>				
4	<p>Causes and /or Problems affecting the improvement of English listening skills.</p> <p>4.1 From student themselves</p> <p>4.2 From materials</p>				

5	<p>Needs and wants of Self-instructional English listening materials for student nurses.</p> <p>5.1 Types</p> <p>5.2 Academic aspects and Physical aspects</p>				
6	<p>Criteria of rating the needs and/or wants.</p> <p>The use of five-points Likert's scales and the associated meanings are as follows:</p> <p>5 = most</p> <p>4 = very much</p> <p>3 = moderate</p> <p>2 = little</p> <p>1 = very little</p>				

Should you have any additional suggestions and comments please write in the space provided.

Thank you very much for your kind cooperation

Mr. Kerk Chetsadanuwat

Researcher

Appendix G

**The checklist for the experts to validate the sample
lesson unit**

Thesis Title: A Development of Self-Instructional Materials (SIMs) to Enhance English Listening Skills
for Student Nurses

หัวข้อวิจัย: การพัฒนาสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาล
ชื่อ: นายเกริก เจษฎานุกวัฒน์

รหัสประจำตัว: 5287510720 หลักสูตร ศิลปศาสตรมหาบัณฑิต (หลักสูตรนานาชาติ)

สาขา: วิชาภาษาอังกฤษเป็นภาษานานาชาติ (English as an International Language) (สหสาขาวิชา)

ที่ปรึกษาวิทยานิพนธ์: รศ.ดร. สุมาลี ชีโนกุล

หมายเลขโทรศัพท์: 084-6511247 Email address: avene_84@hotmail.com

คำชี้แจง แบบประเมินเพื่อหาดัชนีค่าความสอดคล้องระหว่างข้อคำถามและวัตถุประสงค์ของแบบสอบถาม (IOC) จำนวน 3 หน้านี้ จัดทำขึ้นเพื่อให้ผู้เชี่ยวชาญประเมินค่าความสอดคล้องระหว่างข้อคำถามและวัตถุประสงค์ของแบบสอบถาม โดยแบ่งเป็นทั้งสิ้น 2 ส่วน คือ

ส่วนที่ 1 ข้อมูลด้านบุคคลของผู้เชี่ยวชาญ และ

ส่วนที่ 2 ข้อคำถามที่ใช้ในแบบสอบถาม ซึ่งมีทั้งสิ้น 2 ตอน

ขอให้ท่านผู้เชี่ยวชาญพิจารณาข้อความแต่ละข้อในแบบประเมินนี้ โดยทำเครื่องหมาย ลงในช่อง ที่จัดให้ตามความคิดเห็นของท่านพร้อมเขียนข้อเสนอแนะที่เป็นประโยชน์เพื่อนำไปปรับปรุงต่อไป โดยเกณฑ์การพิจารณามีดังนี้

- +1 หมายถึง ผู้เชี่ยวชาญเห็นว่าเนื้อหาของข้อความวัดได้ตรงตามวัตถุประสงค์
- 0 หมายถึง ผู้เชี่ยวชาญไม่แน่ใจว่าเนื้อหาของข้อความวัดได้ตรงตามวัตถุประสงค์
- 1 หมายถึง ผู้เชี่ยวชาญไม่เห็นด้วยกับเนื้อหาของข้อความว่าวัดได้ตรงตามวัตถุประสงค์

ในกรณีที่ท่านให้คะแนน -1 (ไม่เห็นด้วย) ขอความอนุเคราะห์ให้ข้อคิดเห็นเสนอแนะเพิ่มเติมในข้อนี้ๆ

ส่วนที่ 1: ข้อมูลด้านบุคคลของผู้เชี่ยวชาญ

กรุณากรอกข้อมูลด้านล่างนี้

ชื่อ.....สถานที่ทำงานปัจจุบัน.....

ตำแหน่ง.....ระยะการทำงานในตำแหน่งปัจจุบัน.....

ประวัติการศึกษา (โดยย่อ)

ปริญญาโท.....ประเทศ.....

ปริญญาเอก.....ประเทศ.....

ส่วนที่ 2 เนื้อหาการพิจารณา

ข้อที่	ข้อความคำถามเพื่อการพิจารณา	ความคิดเห็นของท่าน			
		+1	0	-1	โปรดระบุข้อเสนอนั้น
ด้านวิชาการ					
1.	เนื้อหา				
	สอดคล้องกับวัตถุประสงค์การเรียนรู้และความต้องการ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	แต่ละหน่วยการเรียนรู้ มีองค์ประกอบของสื่อการเรียนรู้ด้วยตนเองครบถ้วน ได้แก่ วัตถุประสงค์ การเรียนรู้ บทนำ คำแนะนำ การเรียน เนื้อหาบทเรียน กิจกรรม แบบทดสอบตนเอง สรุปการเรียนรู้ และ ตัวอย่างคำตอบของกิจกรรมและแบบทดสอบท้ายบทเรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	สอดคล้องกับบริบทการเรียนรู้ของผู้เรียนในเรื่องการแพทย์ และ พยาบาล	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีความยาก ง่ายเหมาะสมกับภูมิความรู้ และประสบการณ์ของผู้เรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีความสมจริง	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ทันสมัย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีภาพประกอบเพื่อความเข้าใจในเนื้อหา หรือประเด็นที่สำคัญของบทเรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.	การวางลำดับเนื้อหา				
	ชัดเจน เข้าใจง่าย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	แบ่งตามลำดับความสำคัญ จากมาก ไปน้อย และจากง่าย ไป ยาก	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีตัวเลขกำกับชัดเจน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	เนื้อหาเชื่อมโยงภายในบทเรียนเดียวกัน และระหว่างบทเรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ความยาวของเนื้อหาเหมาะสมกับหัวข้อหรือ บทเรียนนั้นๆ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	คำแนะนำการเรียนรู้ด้วยตนเอง ปรากฏชัดเจนก่อนเริ่มเรียนบทเรียนนั้นๆ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีพื้นที่เพียงพอต่อการเขียนคำตอบ หรือจดเนื้อหาที่สำคัญ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.	การนำเสนอเนื้อหาในคู่มือการเรียน				
	เนื้อหานำเสนอตรงตามจุดประสงค์การเรียนรู้	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	เนื้อหาและประเด็นที่สำคัญในบทเรียนนั้นๆ ชัดเจน สะดุดตา	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ภาพประกอบของเนื้อหาในบทเรียนชัดเจน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	เสริมสร้างจินตนาการและความเข้าใจ ทั้ง ยังกระตุ้นให้ผู้เรียนอยากเรียนรู้ยิ่งขึ้น				
	เนื้อหาและภาพประกอบที่นำมาใช้บอก ที่มาและแหล่งอ้างอิงชัดเจน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. ภาษาที่ใช้					
	ชัดเจน เข้าใจง่าย ไม่คลุมเครือ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ภาษาที่ใช้เหมาะสมกับกิจกรรมและ บทเรียนนั้นๆ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	คำศัพท์และสำนวนที่ใช้ เหมาะสมกับภูมิ ความรู้และประสบการณ์ของผู้เรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	คำศัพท์และสำนวนที่ใช้ เป็นคำศัพท์และ สำนวนที่ใช้จริงในวงการแพทย์และ พยาบาล	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. แบบฝึกหัดและกิจกรรมในสื่อการเรียนรู้ด้วยตนเอง					
	สอดคล้องกับจุดประสงค์การเรียนรู้ และ ทักษะการฟังนั้นๆ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	สอดคล้องกับเนื้อหาในบทเรียนนั้นๆ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีกิจกรรมและแบบฝึกหัดที่เสริมสร้างการ เรียนรู้ กระตุ้นความคิดและความเข้าใจใน บทเรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีกิจกรรมและแบบฝึกหัดในบทเรียนที่ ส่งเสริมให้ผู้เรียนเกิดความคิดอย่างมี วิจารณญาณ และสร้างสรรค์ ขณะฟังได้	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีกิจกรรมและแบบฝึกหัดในบทเรียนที่ สามารถช่วยพัฒนาทักษะการฟัง ภาษาอังกฤษของผู้เรียนหลังการฟังได้	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีตัวอย่างคำตอบของกิจกรรม แบบฝึกหัด และแบบทดสอบต่างๆพร้อมคำอธิบายที่ ชัดเจนปรากฏท้ายบทเรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	แสดงตารางประเมินการให้คะแนนแก่ ผู้เรียนเพื่อเปรียบเทียบกับคะแนนที่ทำได้	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ด้านกายภาพของสื่อการเรียนรู้ด้วยตนเอง					
6. การจัดพิมพ์รูปเล่ม					
	รูปแบบปกสวยงาม สะดุดตา	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ขนาดตัวอักษร ของหัวข้อ และของเนื้อหา เหมาะสม	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	การจัดรูปเล่มเหมาะสมกับการอ่าน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	หมายเลขหน้ากำกับชัดเจนและสังเกตเห็นง่าย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ระยะห่างระหว่างบรรทัดเหมาะสม	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ไม่ฉีกคำ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	การพิมพ์ชัดเจนทั้งคำและภาพประกอบ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

7.	ความคงทนของสื่อการเรียนรู้ด้วยตนเอง			
	การจัดทำรูปเล่ม คงทน ไม่ฉีกขาดง่าย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ปกหนังสือคงทน ไม่ฉีกขาดง่าย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	กระดาษที่ใช้พิมพ์คงทน ไม่ฉีกขาดง่าย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ซีดีหรือแผ่นบันทึกเสียงไม่แตกหักง่าย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	ขนาดของสื่อการเรียนรู้ด้วยตนเอง			
	ขนาดกระทัดรัด น้ำหนักเบา สะดวกต่อการพกพา	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	คุณภาพเสียงที่บันทึก			
	เสียงคำบรรยายและบทสนทนา (tape script) ชัดเจน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	เสียงคำบรรยาย และบทสนทนา (tape script) ตรงตามลำดับเนื้อหาในบทเรียน แบบฝึกหัด และ กิจกรรม	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	เสียงดนตรีประกอบชัดเจน และมีความดังที่เหมาะสม	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ข้อเสนอแนะเพิ่มเติม

คำแนะนำและข้อเสนอแนะของท่านจักเป็นประโยชน์ยิ่งในการพัฒนาสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาลในลำดับต่อไป

.....

นายเกริก เจษฎานุกวัฒน์
 ผู้วิจัย

Appendix H

The experts' evaluation of the sample lesson unit

Criteria for evaluating the sample lesson unit	Experts			\bar{X}	Interpretation
	1	2	3		
1. Content					
1.1 Content is aligned to learning aims and/or learning objectives.	+1	+1	+1	1.00	Suitable and accepted
1.2 Each unit has goals and objectives, introduction, self-study guide, contents, self-assessment, summary, model answers for activities and exercises.	+1	+1	+1	1.00	Suitable and accepted
1.3 Content is in accordance with backgrounds and experiences of the students e.g. medical and nursing.	+1	+1	+1	1.00	Suitable and accepted
1.4 Content is appropriate keeping in view of students' background knowledge and experiences.	+1	+1	+1	1.00	Suitable and accepted
1.5 Content is culled from authentic sources.	+1	+1	+1	1.00	Suitable and accepted
1.6 The selected content is up-to-date.	+1	+1	+1	1.00	Suitable and accepted
1.7 Visual aids are provided to represent important themes of each unit.	+1	+1	+1	1.00	Suitable and accepted
2. The organization of content					
2.1 Precise and easy to understand.	+1	+1	+1	1.00	Suitable and accepted
2.2 The content is divided into sections and sub-sections.	+1	+1	+1	1.00	Suitable and accepted
2.3 Clear numbering.	+1	+1	+1	1.00	Suitable and accepted
2.4 There is a link between sections and units in each unit.	+1	+1	+1	1.00	Suitable and accepted
2.5 The length of each unit is appropriate keeping in view of the theme and title.	+1	+1	+1	1.00	Suitable and accepted
2.6 A self-use orientation is provided in the beginning of each unit.	+1	+1	+1	1.00	Suitable and accepted
2.7 Enough space is provided for writing useful information or the answers to self-assessment questions.	+1	+1	+1	1.00	Suitable and accepted
3. The presentation of content					
3.1 The presentation of content is in accordance with learning objectives.	+1	+1	+1	1.00	Suitable and accepted
3.2 The important points of content are highlighted for easy references.	+1	+1	+1	1.00	Suitable and accepted
3.3 Illustrations included in the text are clear and help create interests and also increase comprehension and retention of information / knowledge.	+1	+1	+1	1.00	Suitable and accepted
3.4 References are given wherever appropriate to the use of supporting media.	+1	+1	+1	1.00	Suitable and accepted
4. The language use	+1	+1	+1	1.00	Suitable and accepted
4.1 The language use is simple, precise, correct, unambiguous, and comprehensible.	+1	0	+1	0.67	Suitable and accepted
4.2 The language use is appropriate to activities and units.	+1	0	+1	0.67	Suitable and accepted
4.3 The vocabulary and expression use is relevant to students' background knowledge and experiences.	+1	+1	+1	1.00	Suitable and accepted
4.4 The vocabulary and expression in the texts is commonly used in the field of medical and nursing.	+1	+1	0	0.67	Suitable and accepted

5. The self assessments and activities applied					
5.1 Self assessments and activities are appropriate to unit objectives and listening skills.	+1	+1	+1	1.00	Suitable and accepted
5.2 Texts in self assessment and activities are appropriate to unit contents.	+1	0	+1	0.67	Suitable and accepted
5.3 Activities are included in the text to promote interests, comprehension, and retention of information/knowledge.	+1	+1	+1	1.00	Suitable and accepted
5.4 Activities and self assessments engage students in critical and creative thinking while listening.	+1	0	+1	0.67	Suitable and accepted
5.5 Activities and exercises support the development of English listening skills for students after listening.	+1	+1	-1	0.33	Unsuitable and unaccepted
5.6 Model answers are provided at the end of each unit.	+1	+1	+1	1.00	Suitable and accepted
5.7 Scoring rubrics are provided for students.	+1	+1	+1	1.00	Suitable and accepted
6. The printing and layout					
6.1 The design of the cover page is attractive and appealing.	+1	+1	0	0.67	Suitable and accepted
6.2 The font size of the main text, chapter headings, sub-headings, captions, exercises, etc., is appropriate.	+1	0	+1	0.67	Suitable and accepted
6.3 The layout is appropriate for reading.	+1	+1	+1	1.00	Suitable and accepted
6.4 The number of pages included in the handbook is clear and easy to be noticed.	+1	+1	+1	1.00	Suitable and accepted
6.5 Spacing between the lines is proper.	+1	0	+1	0.67	Suitable and accepted
6.6 Words and lines are aligned properly.	+1	+1	+1	1.00	Suitable and accepted
6.7 Printing is clear and easy to read.	+1	+1	+1	1.00	Suitable and accepted
7. Durability					
7.1 The binding of the book is durable.	+1	+1	+1	1.00	Suitable and accepted
7.2 The cover page is durable.	+1	+1	+1	1.00	Suitable and accepted
7.3 The paper used to produce the materials is durable.	+1	+1	+1	1.00	Suitable and accepted
7.4 The cassette tape or CD is durable.	+1	+1	+1	1.00	Suitable and accepted
8. Size of the materials					Suitable and accepted
The size of the materials is appropriate and user friendly.	+1	+1	+1	1.00	Suitable and accepted
9. The quality of sounds recording					
9.1 The spoken voice and tape scripts are clear.	+1	-1	+1	0.33	Unsuitable and unaccepted
9.2 The spoken voice and tape scripts are accurately put according to unit contents and activities.	+1	0	+1	0.67	Suitable and accepted
9.3 Background music is clear with appropriate volume.	+1	0	+1	0.67	Suitable and accepted

Appendix I

The checklist for the experts to validate the listening comprehension test

**Item-objective congruence (IOC)
for experts in language assessment**

Thesis Title (In English): A Development of Self-Instructional Materials (SIMs) to Enhance English Listening Skills for Student Nurses

(In Thai): การพัฒนาสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาล

Name of student: Krerk Chetsadanuwat **Student ID:** 5287510720

Program: Master of Arts (English as an International Language)

Department/Discipline: English as an International Language
(Interdisciplinary/ International Program)

Principal Research Advisor: Associate Professor Sumalee Chinokul, Ph.D.

Contact Number: 084-6511247 **Email address:** avene_84@hotmail.com

Objectives of the Study

9. To investigate the needs of English listening skills of student nurses.
10. To develop self-instructional materials on English listening skills for student nurses.
11. To examine the effectiveness of the developed self-instructional materials.
12. To study the attitude of the students towards the developed self-instructional materials.

Direction

The index of item-objective congruence (IOC) is used for evaluating content validity of the listening comprehension test.

This IOC form consists of 2 parts: 4 pages as follows:

Part 1: Personal Information of the expert

Part 2: Item-objective congruence (IOC) of items of question used in the test

Part 1: Personal Information of the expert

Name.....

Position.....Work Place.....

Educational background

Graduate school.....

Part 2: Item-objective congruence (IOC) of items of question used in the test

Please rate the appropriateness of each items listed by marking “√” in provided as follows:

+1 = the item is appropriate to be used;

0 = I am not sure; and

-1 = the item is not appropriate to be used.

(In case -1 is marked, please give any comments and/or suggestions)

No.	Items to be rated	Level of appropriateness			
		+1	0	-1	Comments and/or Suggestions
1-5	Recognize vocabularies related to the health science.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Retain chunks of language in short-term memory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.1	Recognize basic syntactic patterns.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.2	Recognize basic syntactic patterns.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.3	Recognize basic syntactic patterns.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.4	Recognize basic syntactic patterns.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.5	Recognize reduced forms of words.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.6	Recognize typical word-order patterns.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.7	Recognize stress and rhythm patterns, tone patterns, or intonation contours.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.8	Recognize stress and rhythm patterns, tone patterns, or intonation contours.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.9	Recognize basic syntactic patterns.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.10	Recognize basic syntactic patterns.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.1	Detect key words such as those identifying topics and main ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.2	Detect key words such as those identifying topics and main ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.3	Detect key words such as those	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	identifying topics and main ideas.				
8	Detect key words such as those identifying topics and main ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9	Detect sentence constituents such as subject, verb, object, and prepositions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10	Detect key words such as those identifying topics and main ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11.1	Guess meaning from context.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11.2	Detect key words such as those identifying topics and main ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11.3	Detect key words such as those identifying topics and main ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11.4	Detect key words such as those identifying topics and main ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.1	Detect key words such as those identifying topics and main ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.2	Detect key words such as those identifying topics and main ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.3	Detect key words such as those identifying topics and main ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.4	Detect key words such as those identifying topics and main ideas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12.5	Understand inferred information e.g. speaker's attitude or intention.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13.1	Understand inferred information e.g. speaker's attitude or intention.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13.2	Understand inferred information e.g. speaker's attitude or intention.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13.3	Understand inferred information e.g. speaker's attitude or intention.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13.4	Understand inferred information e.g. speaker's attitude or intention.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

13.5	Understand inferred information e.g. speaker's attitude or intention.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13.6	Guess meaning from context.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13.7	Guess meaning from context.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13.8	Guess meaning from context.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13.9	Guess meaning from context.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13.10	Understand inferred information e.g. speaker's attitude or intention.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Should you have any additional suggestions and comments please write in the space provided.

Thank you very much for your kind cooperation

Mr. Kerk Chetsadanuwat

Researcher

Appendix J

The experts' evaluation of the listening comprehension test

Item	Criteria for validating the listening comprehension test	Experts			\bar{X}	Interpretation
		1	2	3		
1-5	Recognize vocabularies related to the health science. Retain chunks of language in short-term memory.	+1	+1	+1	1.00	Appropriate to use
6.1	Recognize basic syntactic patterns.	+1	+1	+1	1.00	Appropriate to use
6.2	Recognize basic syntactic patterns.	+1	+1	+1	1.00	Appropriate to use
6.3	Recognize basic syntactic patterns.	+1	+1	+1	1.00	Appropriate to use
6.4	Recognize basic syntactic patterns.	+1	+1	+1	1.00	Appropriate to use
6.5	Recognize reduced forms of words.	-1	+1	+1	0.33	Inappropriate to use
6.6	Recognize typical word-order patterns.	+1	+1	+1	1.00	Appropriate to use
6.7	Recognize stress and rhythm patterns, tone patterns, or intonation contours.	+1	+1	+1	1.00	Appropriate to use
6.8	Recognize stress and rhythm patterns, tone patterns, or intonation contours.	+1	-1	+1	0.33	Inappropriate to use
6.9	Recognize basic syntactic patterns.	+1	-1	+1	0.33	Inappropriate to use
6.10	Recognize basic syntactic patterns.	+1	-1	+1	0.33	Inappropriate to use
7.1	Detect key words such as those identifying topics and main ideas.	+1	+1	+1	1.00	Appropriate to use
7.2	Detect key words such as those identifying topics and main ideas.	+1	+1	+1	1.00	Appropriate to use
7.3	Detect key words such as those identifying topics and main ideas.	+1	+1	+1	1.00	Appropriate to use
8	Detect key words such as those identifying topics and main ideas.	+1	+1	0	0.67	Appropriate to use
9	Detect sentence constituents such as subject, verb, object, and prepositions.	+1	+1	+1	1.00	Appropriate to use
10	Detect key words such as those identifying topics and main ideas.	+1	+1	+1	1.00	Appropriate to use
11.1	Guess meaning from context.	+1	+1	+1	1.00	Appropriate to use
11.2	Detect key words such as those identifying topics and main ideas.	+1	0	+1	0.67	Appropriate to use
11.3	Detect key words such as those identifying topics and main ideas.	+1	+1	+1	1.00	Appropriate to use
11.4	Detect key words such as those identifying topics and main ideas.	+1	+1	+1	1.00	Appropriate to use

12.1	Detect key words such as those identifying topics and main ideas.	+1	+1	+1	1.00	Appropriate to use
12.2	Detect key words such as those identifying topics and main ideas.	+1	-1	+1	0.33	Inappropriate to use
12.3	Detect key words such as those identifying topics and main ideas.	+1	+1	0	0.67	Appropriate to use
12.4	Detect key words such as those identifying topics and main ideas.	+1	+1	+1	1.00	Appropriate to use
12.5	Understand inferred information e.g. speaker's attitude or intention.	+1	+1	+1	1.00	Appropriate to use
13.1	Understand inferred information e.g. speaker's attitude or intention.	+1	-1	+1	0.33	Inappropriate to use
13.2	Understand inferred information e.g. speaker's attitude or intention.	-1	+1	+1	0.33	Inappropriate to use
13.3	Understand inferred information e.g. speaker's attitude or intention.	+1	-1	+1	0.33	Inappropriate to use
13.4	Understand inferred information e.g. speaker's attitude or intention.	+1	-1	+1	0.33	Inappropriate to use
13.5	Understand inferred information e.g. speaker's attitude or intention.	+1	-1	+1	0.33	Inappropriate to use
13.6	Guess meaning from context.	+1	+1	-1	0.33	Inappropriate to use
13.7	Guess meaning from context.	+1	-1	+1	0.33	Inappropriate to use
13.8	Guess meaning from context.	+1	-1	+1	0.33	Inappropriate to use
13.9	Guess meaning from context.	-1	+1	+1	0.33	Inappropriate to use
13.10	Understand inferred information e.g. speaker's attitude or intention.	+1	-1	+1	0.33	Inappropriate to use

Appendix K

**The checklist for the experts to validate a materials
evaluation form**

Thesis Title: A Development of Self-Instructional Materials (SIMs) to Enhance English Listening Skills
for Student Nurses

หัวข้อวิจัย: การพัฒนาสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาล
ชื่อ: นายเกริก เจษฎานุกวัฒน์

รหัสประจำตัว: 5287510720 **หลักสูตร:** ศิลปศาสตรมหาบัณฑิต (หลักสูตรนานาชาติ)

สาขา: วิชาภาษาอังกฤษเป็นภาษานานาชาติ (English as an International Language) (สหสาขาวิชา)

ที่ปรึกษาวิทยานิพนธ์: รศ.ดร. สุมาลี ชีโนกุล

หมายเลขโทรศัพท์: 084-6511247 **Email address:** avene_84@hotmail.com

คำชี้แจง แบบประเมินเพื่อหาดัชนีค่าความสอดคล้องระหว่างข้อคำถามและวัตถุประสงค์ของแบบสอบถาม (IOC) จำนวน 3 หน้านี้ จัดทำขึ้นเพื่อให้ผู้เชี่ยวชาญประเมินค่าความสอดคล้องระหว่างข้อคำถามและวัตถุประสงค์ของแบบสอบถาม โดยแบ่งเป็นทั้งสิ้น 2 ส่วน คือ

ส่วนที่ 1 ข้อมูลด้านบุคคลของผู้เชี่ยวชาญ และ

ส่วนที่ 2 ข้อคำถามที่ใช้ในแบบสอบถาม ซึ่งมีทั้งสิ้น 2 ตอน

ขอให้ท่านผู้เชี่ยวชาญพิจารณาข้อความแต่ละข้อในแบบประเมินนี้ โดยทำเครื่องหมาย ลงในช่อง ที่จัดให้ตามความคิดเห็นของท่านพร้อมเขียนข้อเสนอแนะที่เป็นประโยชน์เพื่อนำไปปรับปรุงต่อไปโดยเกณฑ์การพิจารณามี

ดังนี้

- +1 หมายถึง ผู้เชี่ยวชาญเห็นว่าเนื้อหาของข้อความวัดได้ตรงตามวัตถุประสงค์
- 0 หมายถึง ผู้เชี่ยวชาญไม่แน่ใจว่าเนื้อหาของข้อความวัดได้ตรงตามวัตถุประสงค์
- 1 หมายถึง ผู้เชี่ยวชาญไม่เห็นด้วยกับเนื้อหาของข้อความว่าวัดได้ตรงตามวัตถุประสงค์

ในกรณีที่ท่านให้คะแนน -1 (ไม่เห็นด้วย) ขอความอนุเคราะห์ให้ข้อคิดเห็นเสนอแนะเพิ่มเติมในข้อนี้ๆ

ทั้งนี้ผู้วิจัยได้แนบตัวอย่างแบบประเมินที่จะนำไปใช้เป็นเครื่องมือหาข้อมูลของงานวิจัยดังกล่าวมา

ประกอบการพิจารณาด้วย

ส่วนที่ 1: ข้อมูลด้านบุคคลของผู้เชี่ยวชาญ

กรุณากรอกข้อมูลด้านล่างนี้

ชื่อ.....สถานที่ทำงานปัจจุบัน.....

ตำแหน่ง.....ระยะการทำงานในตำแหน่งปัจจุบัน.....

ประวัติการศึกษา (โดยย่อ)

ปริญญาโท.....ประเทศ.....

ปริญญาเอก.....ประเทศ.....

ส่วนที่ 2 เนื้อหาการพิจารณา

ข้อที่	ข้อความคำถามเพื่อการพิจารณา	ความคิดเห็นของท่าน			
		+1	0	-1	โปรดระบุข้อเสนอนะ
ด้านวิชาการ					
1.	เนื้อหา				
	สอดคล้องกับวัตถุประสงค์การเรียนรู้และความต้องการ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	แต่ละหน่วยการเรียนรู้ มีองค์ประกอบของสื่อการเรียนรู้ด้วยตนเองครบถ้วน ได้แก่ วัตถุประสงค์ การเรียนรู้ บทนำ คำแนะนำ การเรียน เนื้อหาบทเรียน กิจกรรม แบบทดสอบตนเอง สรุปการเรียนรู้ และ ตัวอย่างคำตอบของกิจกรรมและ แบบทดสอบท้ายบทเรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	สอดคล้องกับบริบทการเรียนรู้ของผู้เรียนในเรื่องการแพทย์ และ พยาบาล	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีความยาก ง่ายเหมาะสมกับภูมิความรู้ และประสบการณ์ของผู้เรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีความสมจริง	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ทันสมัย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีภาพประกอบเพื่อความเข้าใจในเนื้อหา หรือประเด็นที่สำคัญของบทเรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.	การวางลำดับเนื้อหา				
	ชัดเจน เข้าใจง่าย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	แบ่งตามลำดับความสำคัญ จากมาก ไปน้อย และจากง่าย ไป ยาก	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีตัวเลขกำกับชัดเจน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	เนื้อหาเชื่อมโยงภายในบทเรียนเดียวกัน และระหว่างบทเรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ความยาวของเนื้อหาเหมาะสมกับหัวข้อ หรือ บทเรียนนั้นๆ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	คำแนะนำการเรียนรู้ด้วยตนเอง ปรากฏชัดเจนก่อนเริ่มเรียนบทเรียนนั้นๆ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีพื้นที่เพียงพอต่อการเขียนคำตอบ หรือ จุดเนื้อหาที่สำคัญ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.	การนำเสนอเนื้อหาในคู่มือการเรียน				
	เนื้อหาแนะนำเสนอตรงตามจุดประสงค์การเรียนรู้	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	เนื้อหาและประเด็นที่สำคัญในบทเรียนนั้นๆ ชัดเจน สะดุดตา	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ภาพประกอบของเนื้อหาในบทเรียนชัดเจน เสริมสร้างจินตนาการและความเข้าใจ ทั้ง	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	ยังกระตุ้นให้ผู้เรียนอยากเรียนรู้อยิ่งขึ้น				
	เนื้อหาและภาพประกอบที่นำมาใช้บอกที่มาและแหล่งอ้างอิงชัดเจน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. ภาษาที่ใช้					
	ชัดเจน เข้าใจง่าย ไม่คลุมเคลือ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ภาษาที่ใช้เหมาะสมกับกิจกรรมและบทเรียนนั้นๆ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	คำศัพท์และสำนวนที่ใช้ เหมาะสมกับภูมิความรู้และประสบการณ์ของผู้เรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	คำศัพท์และสำนวนที่ใช้ เป็นคำศัพท์และสำนวนที่ใช้จริงในวงการแพทย์และพยาบาล	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. แบบฝึกหัดและกิจกรรมในสื่อการเรียนรู้ด้วยตนเอง					
	สอดคล้องกับจุดประสงค์การเรียนรู้ และทักษะการฟังนั้นๆ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	สอดคล้องกับเนื้อหาในบทเรียนนั้นๆ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีกิจกรรมและแบบฝึกหัดที่เสริมสร้างการเรียนรู้ กระตุ้นความคิดและความเข้าใจในบทเรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีกิจกรรมและแบบฝึกหัดในบทเรียนที่ส่งเสริมให้ผู้เรียนเกิดความคิดอย่างมีวิจารณญาณ และสร้างสรรค์ ขณะฟังได้	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีกิจกรรมและแบบฝึกหัดในบทเรียนที่สามารถช่วยพัฒนาทักษะการฟังภาษาอังกฤษของผู้เรียนหลังการฟังได้	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	มีตัวอย่างคำตอบของกิจกรรม แบบฝึกหัด และแบบทดสอบต่างๆพร้อมคำอธิบายที่ชัดเจนปรากฏท้ายบทเรียน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	แสดงตารางประเมินการให้คะแนนแก่ผู้เรียนเพื่อเปรียบเทียบกับคะแนนที่ทำได้	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ด้านกายภาพของสื่อการเรียนรู้ด้วยตนเอง					
6. การจัดพิมพ์รูปเล่ม					
	รูปแบบปกสวยงาม สะดุดตา	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ขนาดตัวอักษร ของหัวข้อ และของเนื้อหาเหมาะสม	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	การจัดรูปเล่มเหมาะสมกับการอ่าน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	หมายเลขหน้ากำกับชัดเจนและสังเกตง่าย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ระยะห่างระหว่างบรรทัดเหมาะสม	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ไม่ฉีกคำ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	การพิมพ์ชัดเจนทั้งคำและภาพประกอบ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. ความคงทนของสื่อการเรียนรู้ด้วยตนเอง					
	การจัดทำรูปเล่ม คงทน ไม่ฉีกขาดง่าย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	ปกหนังสือคงทน ไม่ฉีกขาดง่าย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	กระดาษที่ใช้พิมพ์คงทน ไม่ฉีกขาดง่าย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ซีดีหรือแถบบันทึกเสียงไม่แตกหักง่าย	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.	ขนาดของสื่อการเรียนรู้ด้วยตนเอง				
	ขนาดกระทัดรัด น้ำหนักเบา สะดวกต่อการพกพา	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9.	คุณภาพเสียงที่บันทึก				
	เสียงคำบรรยายและบทสนทนา (tape script) ชัดเจน	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	เสียงคำบรรยาย และบทสนทนา (tape script) ตรงตามลำดับเนื้อหาในบทเรียน แบบฝึกหัด และ กิจกรรม	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	เสียงดนตรีประกอบชัดเจน และมีความดังที่เหมาะสม	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

ข้อเสนอแนะเพิ่มเติม

คำแนะนำและข้อเสนอแนะของท่านจักเป็นประโยชน์ยิ่งในการพัฒนาสื่อการเรียนรู้ด้วยตนเองเพื่อพัฒนาทักษะการฟังภาษาอังกฤษสำหรับนักศึกษาพยาบาลในลำดับต่อไป

.....

นายเกริก เจษฎานุกุลวัฒน์

ผู้วิจัย

Appendix L

The experts' evaluation of a materials evaluation form

Criteria for validating	Experts			\bar{X}	Interpretation
	1	2	3		
1. Content					
1.3 Content is aligned to learning aims and/or learning objectives.	+1	+1	+1	1.00	Suitable to use
1.4 Each unit has goals and objectives, introduction, self-study guide, contents, self-assessment, summary, model answers for activities and exercises.	+1	+1	+1	1.00	Suitable to use
1.5 Content is in accordance with backgrounds and experiences of the students e.g. medical and nursing.	+1	+1	+1	1.00	Suitable to use
1.6 Content is appropriate keeping in view of students' background knowledge and experiences.	+1	+1	+1	1.00	Suitable to use
1.7 Content is culled from authentic sources.	+1	+1	+1	1.00	Suitable to use
1.8 The selected content is up-to-date.	+1	+1	+1	1.00	Suitable to use
1.9 Visual aids are provided to represent important themes of each unit.	+1	+1	+1	1.00	Suitable to use
2. The organization of content					
2.3 Precise and easy to understand.	+1	+1	+1	1.00	Suitable to use
2.4 The content is divided into sections and sub-sections.	+1	+1	+1	1.00	Suitable to use
2.5 Clear numbering.	+1	+1	+1	1.00	Suitable to use
2.6 There is a link between sections and units in each unit.	+1	+1	+1	1.00	Suitable to use
2.7 The length of each unit is appropriate keeping in view of the theme and title.	+1	+1	+1	1.00	Suitable to use
2.8 A self-use orientation is provided in the beginning of each unit.	+1	+1	+1	1.00	Suitable to use
2.9 Enough space is provided for writing useful information or the answers to self-assessment questions.	+1	+1	+1	1.00	Suitable to use
3. The presentation of content					
3.3 The presentation of content is in accordance with learning objectives.	+1	+1	+1	1.00	Suitable to use
3.4 The important points of content are highlighted for easy references.	+1	+1	+1	1.00	Suitable to use
3.5 Illustrations included in the text are clear and help create interests and also increase comprehension and retention of information / knowledge.	+1	+1	+1	1.00	Suitable to use
3.6 References are given wherever appropriate to the use of supporting media.	+1	+1	+1	1.00	Suitable to use
4. The language use					
4.3 The language use is simple, precise, correct, unambiguous, and comprehensible.	+1	+1	+1	1.00	Suitable to use
4.4 The language use is appropriate to activities and units.	+1	+1	+1	1.00	Suitable to use
4.5 The vocabulary and expression use is relevant to students' background knowledge and experiences.	+1	+1	+1	1.00	Suitable to use
4.6 The vocabulary and expression in the texts is commonly used in the field of medical and nursing.	+1	+1	+1	1.00	Suitable to use
5. The self assessments and activities applied					
5.3 Self assessments and activities are appropriate to unit objectives and listening skills.	+1	+1	+1	1.00	Suitable to use
5.4 Texts in self assessment and activities are appropriate to unit contents.	+1	+1	+1	1.00	Suitable to use

5.5	Activities are included in the text to promote interests, comprehension, and retention of information/knowledge.	+1	+1	+1	1.00	Suitable to use
5.6	Activities and self assessments engage students in critical and creative thinking while listening.	+1	+1	+1	1.00	Suitable to use
5.7	Activities and exercises support the development of English listening skills for students after listening.	+1	+1	+1	1.00	Suitable to use
5.8	Model answers are provided at the end of each unit.	+1	+1	+1	1.00	Suitable to use
5.7	Scoring rubrics are provided for students.	+1	+1	+1	1.00	Suitable to use
6. The printing and layout						
6.3	The design of the cover page is attractive and appealing.	+1	+1	+1	1.00	Suitable to use
6.4	The font size of the main text, chapter headings, sub-headings, captions, exercises, etc., is appropriate.	+1	+1	+1	1.00	Suitable to use
6.5	The layout is appropriate for reading.	+1	+1	+1	1.00	Suitable to use
6.6	The number of pages included in the handbook is clear and easy to be noticed.	+1	+1	+1	1.00	Suitable to use
6.7	Spacing between the lines is proper.	+1	+1	+1	1.00	Suitable to use
6.8	Words and lines are aligned properly.	+1	+1	+1	1.00	Suitable to use
6.9	Printing is clear and easy to read.	+1	+1	+1	1.00	Suitable to use
7. Durability						
7.3	The binding of the book is durable.	+1	+1	+1	1.00	Suitable to use
7.4	The cover page is durable.	+1	+1	+1	1.00	Suitable to use
7.5	The paper used to produce the materials is durable.	+1	+1	+1	1.00	Suitable to use
7.6	The cassette tape or CD is durable.	+1	+1	+1	1.00	Suitable to use
8. Size of the materials						
	The size of the materials is appropriate and user friendly.	+1	+1	+1	1.00	Suitable to use
9. The quality of sounds recording						
9.1	The spoken voice and tape scripts are clear.	+1	+1	+1	1.00	Suitable to use
9.2	The spoken voice and tape scripts are accurately put according to unit contents and activities.	+1	+1	+1	1.00	Suitable to use
9.3	Background music is clear with appropriate volume.	+1	+1	+1	1.00	Suitable to use

Appendix M

Statistic Evaluation: paired samples t-test scores

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 post	44.2000	30	1.80803	.33010
pre	41.2000	30	2.72156	.49689

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 post & pre	30	.083	.664

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 post - pre	3.00000	3.14039	.57335	1.82736	4.17264	5.232	29	.000

Appendix N

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BIOGRAPHY

Mr. Kerk Chetsadanuwat was born on September 29, 1984 in Roi Et. He graduated with B.A. in Spanish (second-class honors) from Faculty of Arts, Chulalongkorn University. During 2008-2009 he worked as a staff of international relation services department at Phyathai 2 Hospital. Then, he came back to pursue his M.A. in English as an International Language (EIL) at Chulalongkorn University in academic year 2009.