

Designing ESP Materials for Nursing Students Based On Needs Analysis

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Abstract

Designing teaching material is the process of selecting, adapting and evaluating of teaching based on specific terms of reference. Need Analysis is very important before designing teaching materials for English for Specific Purpose. The study aims at exploring the learning needs of 50 nursing students, and designing ESP materials for nurses based on Need Analysis. Need Analysis in this study is categorized as *Target situation Analysis*, *Present Situation Analysis*, *Deficiency Analysis*, *Strategy Analysis*, *Constraint Analysis*, *Pedagogic Need Analysis*, and *Subjective Need Analysis* (Lowi, 2009). The study uses quantitative and qualitative methods. The findings describe the real needs of students of ESP for nurses, the lecturers' view points on the practice of ESP instructions, and descriptions of ESP for nurses used in English speaking countries. The results are very significant for designers of ESP of various fields for they reflect the real needs of nursing students. It is suggested that Nursing English textbooks should be based on the Need Analysis by ESP designers.

Keywords: Designing, ESP materials, Need analysis, Nursing students

1. Introduction

English for Specific Purposes (ESP) is defined as “a language course or program of instruction in which the content and aims of the course are fixed by the specific needs of a particular group of learners” (Richards and Schmidt, 2010). ESP prepares the learners to use English in academic (students of different fields), professional (people of different professions such as doctors, engineers, and nurses), or workplace (technicians for example) settings.

ESP is a movement based on the proposition that all language teaching should be tailored to the specific learning and language use needs for identified group of learners. It is also sensitive to the socio-cultural contexts in which these learners use English. ESP is focused on a learner-centered approach, since it meets the needs of adult learners who need to learn a foreign language for use in their specific fields; such as science, leisure, medicine, economics, technology and academic learning. ESP program needs to be developed for there is a need for language courses in which certain contents, skills, motivations and processes are identified and integrated into specialized courses.

According to Hutchinson and Waters (1987), ESP is an approach to language teaching in which all decisions as to content and method are based on the learners’ reason for learning. Since 1960’s, as stated by Dudley-Evans and St. John (1998), ESP has become a vital and innovative activity within the Teaching of English as a Foreign and Second Language movement. In the beginning, English for Science and Technology was the most desired area of ESP with a particular attention being paid to specific varieties of written scientific and Technical English. Furthermore, Lattore (1969), Swales (1971) and Selinker and Trimble (1976), in their tree of ELT (English Language Teaching), they developed sub-branches of ESP as English for Academic Purpose (EAP) and English for Occupational Purposes (EOP). These sub-branches evolved to include English for Secretary, English for Economics, English for Technicians and English for Medical Studies which continue up to the present day. The underlying factors behind this development are the essence to address the needs of learners.

According to Dudley-Evans and St. John (1998), the cornerstone of ESP is addressing the language which is required by learners as well as learning contexts of learners. As it is about specific learners, therefore, it must be tailored to the needs of these learners. This coordination is accomplished through what is called Needs Analysis (NA). They also argued that “Need” is defined by the reasons for which the student is learning English, which vary from their purposes of learning such as continuing study or of participating in business meetings or doing joint research in English-speaking countries.

Need Analysis serves as the basis of training programs and development programs. It is the cornerstone of ESP and leads to a focused course. Gardner and Winslow (1983) stated “to produce information which when acted upon makes courses better adapted to students’ needs and part of the object of formal need identification is to back up one’s proposal with quantitative evidence of particular needs”. Analyzing the specific needs of particular group of learners serves as an important starting point in ESP course design for it determines the essence and the underlying reasons of an ESP course. It will help select and prioritize what

students need. Besides, the purpose of ESP course is to enable learners to function adequately in a target situation in which learners will use the language they are learning. The ESP course design should be able to identify the target situation and then carry out complete analysis of the linguistic features of the situations. This process is termed as ‘Target Situation Analysis’ (Hutchinson & Waters, 1987).

Looking through the literature, one can find different definitions of NA by some scholars with varying degrees of overlap and/or deviation. For instance, Brown (1995) defines NA as “the systematic collection and analysis of all subjective and objective information necessary to define and validate defensible curriculum purposes that satisfy the language learning requirements of students within the context of particular institutions that influence the learning and teaching situation”. In this definition, the idea of defensible curriculum deals with the accountability of the course meeting the requirements of a particular group of students and their instructor(s) or other stakeholders. NA is defined by Dudley-Evans and St. John, (1998) as a means of establishing the “what and how of a course”.

In relation to Curriculum, Yalden (1987) argues that setting up a new course implies a skillful blending of what is already known about language teaching and learning with the new elements that a group of learners bring to the classroom; their own needs, wants, attitudes, knowledge of the world. Therefore, designing materials should be adapted with learners’ need of studying English for nurses.

There are a few guidelines for conceptualizing an entire course. Taba (1962) stated that the curriculum process includes seven steps; diagnosing needs, formulating objectives, selecting contents, organizing contents, selecting learning experiences, organizing learning experiences and determining evaluations. In relation to designing a language course Graves (2000) points out “designing a language course is a work in progress in its whole, in its parts and in its implementation”. The course designer task in this sense begins with adopting dynamic approaches starting with the most fundamental feature, the need analysis and situational analysis. The course designer must work through curriculum and syllabus construction; prepare materials and finally modify the course according to the feedback.

The materials of ESP for nurses in this study will be based on learner-centered approach. It contains similar elements to those contained in a common curriculum. However, the difference between the two curriculum is that, in the former, the curriculum is a collaborative effort between teachers and learners, since the learners are closely involved in the decision making process regarding the content of the curriculum and how it is taught. Nunan (1988) argues that learner center approach is based on the given constraint that exists in most learning contexts. Here, teachers must use class time effectively and teach the aspects which the learners themselves deem to be most urgently required.

Learners in this approach do not depend on their teachers all the time. They value each other contributions, cooperate, learn from each other, and help each other. The emphasis of learning is on working together-in pairs, in groups, and as a whole class. A teacher functions to develop their language skills. A learner-centered classroom is a place where learners’ needs are taken into account as a group as individuals, and they are encouraged to participate

in the learning process all the time (Jones, 2007). Along with the curriculum based on learner-centered language teaching is the communicative language teaching. Widdowson (1978) argues that a basic principle underlying all communicative approaches is that learners do not only learn to make grammatically correct propositional statements but also develop the ability to use language to carry out various real-world tasks.

In addition to the approaches above, ESP course plan was designed for an ESP program focusing mostly on task-based instruction, and was designed especially for nurses. In this type of instruction, learners participate in communicative tasks in English. Tasks are defined as activities that can stand alone as fundamental units and that require comprehension, production, manipulation or interaction in authentic language while attention is principally paid to meaning rather than form (Nunan, 1989). Instead of beginning the design process with lists of grammatical, functional-notional, and other items, the writer conducts a need analysis which yields a list of the target tasks that the targeted learners will need to carry out in the 'real world' outside the classroom. Hutchinson and Waters (1983, as cited in Nunan, 1993) suggest that the best work in the ESP area usually focuses on a process rather than a product.

Need Analysis in this study is focused on Need Analysis as proposed by Lowi in Miyake and Tremarco (2005):

- a. *Target Situation Analysis* of learners: the tasks and activities in which English is used
- b. *Wants, Means and Subjective Need Analysis*: personal information about learners including factors that affect the way learners learn such as previous learning experiences, cultural information, reasons for learning ESP and its expectations.
- c. *Present Situation Analysis*: Information about learners' current skills of language use
- d. *Lack Analysis*: the gap between *Present Situation Analysis* and *Target Situation Analysis*
- e. *Learning Need Analysis*: language learning information about the effective ways of learning the skills and language
- f. *Linguistic Analysis, Discourse Analysis and Genre Analysis*: professional communication information about knowledge of how language and skills are used in the target situation.
- g. *Means Analysis*: information about the environment in which the course will be run.

At this time, there are few ESP books for Nurses in Indonesia. From this book, there is no book that contains material that is really needed by the nurses to support their professional career in the nursing field in the future. To overcome this, the author decided to design materials based on ESP Needs Analysis.

This research aims to address two main objectives: 1) to explore the needs of undergraduate nurses on ESP materials and 2) to design ESP materials for undergraduate nurses based on Need Analysis. Briefly, the Need Analysis of ESP adopted in this research is figured out as the followings:

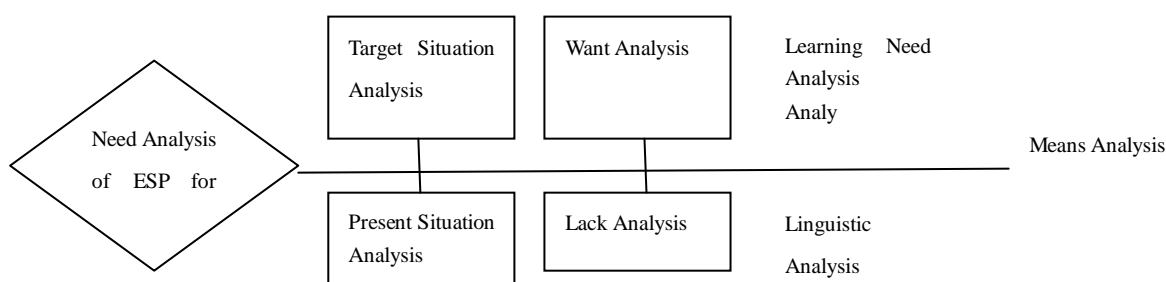


Figure 1. Need Analysis of ESP for Nurses

2. Method

2.1 The Participants

Fifty nursing students (42 females and 8 males) aging 19-26 at 5 nursing colleges in Indonesia, 5 ESP lecturers (2 males and 3 females), 2 Indonesian nurses (both females) working in English-Speaking countries became participants in this study.

This research used both qualitative and quantitative methods and was carried out to explore learner-centered English materials for Indonesian nurses based on need analysis. To ensure validity and reliability of the results, data were collected from multiple sources including nursing students, ESP lecturers, hospital directors, ESP experts, which is called triangulation method, providing different viewpoints, which enables researchers to look at something from a variety of perspectives.

The instruments used to collect data were tests, questionnaire and interview. The data collected from the needs analysis were combined to design the new materials and experts evaluation served to improve it.

2.2 Instrument and Procedure

The instruments used to elicit compliments responses were firstly, questionnaires of *Target situation Analysis*, *Present Situation Analysis*, *Deficiency Analysis*, *Strategy Analysis*, *Constraint Analysis*, *Pedagogic Need Analysis*, and *Subjective Need Analysis* (Lowi, 2009), and secondly interview with ESP Lecturers and Profesional Nurses working in English speaking countries.

3. Findings and Discussions

3.1 Findings from Questionnaire

The following section outlines the results from the quantitative portion of the questionnaire. The results are divided into two parts. Part one describes the subjects' personal information and English proficiency. Part 2 presents the data related to the students' need and wants toward the course.

Table 1. Subjects Personal Information and English Proficiency

		Frequency	%
Age	20-23	23	46
	23-25	20	40
	25-30	7	14
Studied English Previously	Yes	45	90
	No	5	10
Makes an effort to improve English	Yes	30	60
	No	20	40
Frequency of Practicing English outside schools	Not at all	28	56
	1-2 hours	20	40
	3-5 hours	2	4

As described in the table, the category of nursing students' age is divided into 3 categories, and the dominant percentage of students' ages is on the category of 20-23 totaling 46%. Most students had studied English before 90%, compared to 10% students had not ever studied English.

Table 2. Students' Strengths and Weaknesses towards English proficiency

Skills	Very Weak (%)	Weak (%)	Fair (%)	Good (%)	Very Good (%)
Grammar	0	46	24	30	0
Vocabulary	6	30	50	14	0
Pronunciation	10	45	30	10	5
Speaking	13	50	27	10	0
Listening	7	60	30	3	0
Reading	2	46	48	4	0
Writing	2	42	46	10	0

The ability description of nursing students is shown up in the table above. In the use of English Grammar, the highest percentage of students who are in the category of "weak" which was of 46 percent. In the 'Vocabulary', the majority most nursing students have "fair" category by 50%. In *pronunciation* most students have "weak" category as well as the ability of "Speaking and Listening" whereas in the the ability of "Reading and Writing" most them are in the category of "Fair". This phenomenon might exist due to the process of learning ESP was only focused on the two language skills.

Table 3. The Language Skills that Nurses need most in their job

Skills	5	4	3	2	1
Speaking	70%	20%	10%	0%	0%
Listening	50%	30%	16%	4%	0%
Reading	18%	46%	30%	6%	0%
Writing	38%	20%	22%	20%	0%

Table 3 shows the interest percentage of students on language skills. Most of them are very interested in learning ESP *Speaking* activities (70%), followed by *Listening* activities (50%), *Writing* (38%).

Table 4. The situations where nursing students use English most

Situations	Frequency	Percentage (%)
Educating patients	28	56
Explaining drug interactions	35	70
Telephone calls	35	70
Giving advice	40	80
Giving instructions	30	60
Checking understanding	21	42
Explaining laboratory tests	26	56
Administering medications	18	36
Patient admissions	15	30
Writing in the patient admission forms	12	24
Reading prescription charts	14	28
Reading patients' records	10	20
Reading pathology report	4	8
Requesting information by e-mail	3	6

The above table describes the most commonly used opportunities of students in using English. The highest percentage is when *Giving Advice* 80%, followed by activities *Explaining Drug Interactions* and *Making Telephone Calls* each of which get a portion of 70%. However, doing activities on *Pathology Report* and *Requesting Information by E-mail* rank the lowest.

Table 5. Nurses answers about cultural topics they wish to share with patients

Topics	Frequency	Percentage (%)
Family	40	80
Lifestyle	27	54
Food	29	58
Clothing	17	34
Geography	35	70
Job	45	90
Culture	34	68
Hobbies	28	56
Others	12	24

In the table 5, the most frequent topics shared by nurses with patients are those associated with *Job* (90%), *Family* (80%), and *Geography* (70%). While the topics that are less shared by nurses are the topics of *clothing* and *others* not included in the questionnaires.

Table 6. The Nurses Preferences Regarding Useful Activities for Learning English

<i>Activities</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Pair work	28	56
Whole class	20	40
Group work	33	66
Out of class work	17	34
Individual	11	22
Suggestions	0	0

Table 6 shows that the most desirable activities performed by nursing students in learning ESP for Nursing are group work, pair work and whole class activities. Students do not like individuals activities in learning ESP for Nurses.

Table 7. The medical topics the nurses want most to learn

Topics	Frequency	Percentage (%)
Nurses' duties	39	78
Medical ethics	28	56
Medicines	43	86
diseases	36	72
Medical treatment	42	84
Patient care	46	92
vitamins	22	44
Nutrious food	20	40
others	7	14

Table 7 shows that the topics that the students are interested in ; Patient Care 92%, 86% Medicine, 78% duties Nurses, and Medical Treatment 84%.

3.2 Finding from Interview

3.2.1 Two Indonesian Nurses working Abroad

The following outlines the results of interview with two professional Indonesian nurses working in English speaking countries, Australia and New Zealand which was done by Windows Messengers to get detailed information about communication skills needed by nurses in English speaking hospitals. According to the two nurses, the majority of nurses serve foreign patients every day. One nurse reported that they are patients from Asian countries, New Zealand and Australian. The conversations with patients mostly deal with general nursing care, such as getting the patients' history and conditions in order to fill in the patients' record registration, triage, signs and symptoms, health education, giving advice, medical procedures, such as X-rays and laboratory tests, and drug interactions.

The two Indonesian nurses said that firstly they felt anxious and challenged when they had to interact with foreign patients. They enjoyed talking with patients but they did not have enough confidence because of problems relating to vocabularies and pronunciation. They feel

afraid of having misunderstandings due to their bad pronunciation; in fact there were many situations where the patients could not understand them. One nurse also reported a problem dealing with the patients' accent and vocabulary that made conversation difficult to understand. Other problems the nurses encounter when they communicate with patients are those relating to lack of vocabulary, sentence construction, and making questions. One nurse mentioned that patients' accent at a certain the rate of speech when listening especially on the phone is difficult to understand. As a consequence, the nurse has to ask for clarification and repetition a number of times. Problems also occur when nurses are required to give explanations such as appointments and time expressions. Another nurse said that they had to train themselves with listening skills that misunderstanding when communicating with patients could be minimized.

3.2.2 ESP Lecturers

Five ESP lecturers of different institutions were interviewed to have clear information about their experiences on teaching English for Nurses. Majority of lecturers said that they did not have curriculum for teaching ESP for nurses. As a consequence, they had to find out the sources from available books which mostly contain general and academic English. In order to adapt with the objectives of the ESP instructions, sometimes they found out material from medical sites from internet. One lecturer wrote ESP for nurses but only distributed to their students. There was not any coordination among ESP lecturers to design a course book. As a consequence, different institutions have different ESP materials for nurses and each institution seemed to have no standard of ESP competency. The five ESP lecturers agree that there must be a special ESP training for them to improve their skills in teaching ESP for nurses.

Regarding the topics they chose to teach, 3 lecturers said that they used 80 percent of the allocated time to teach general English language skills; listening, speaking, reading and writing on general topics. Only two lecturers said that they used 50/50 between general English and nursing English. The topics they taught were English language skills relating to diseases, nursing care, medicine, parts of body and medical treatments.

4. Designing ESP Materials for Nursing Students

After getting information from questionnaire and interview, the next step is to design learning materials of ESP for nurses based on Need Analysis. In designing the course materials, the researcher followed the steps as figured out below.

The design procedure of these ESP materials has been verified by ESP experts and a curriculum expert to meet requirements of validity and reliability of the findings. All the steps in the design should be adapted to findings from the real Need Analysis obtained from both questionnaire and interview that the materials selected really reflects the use of English used by nurses in medical settings.

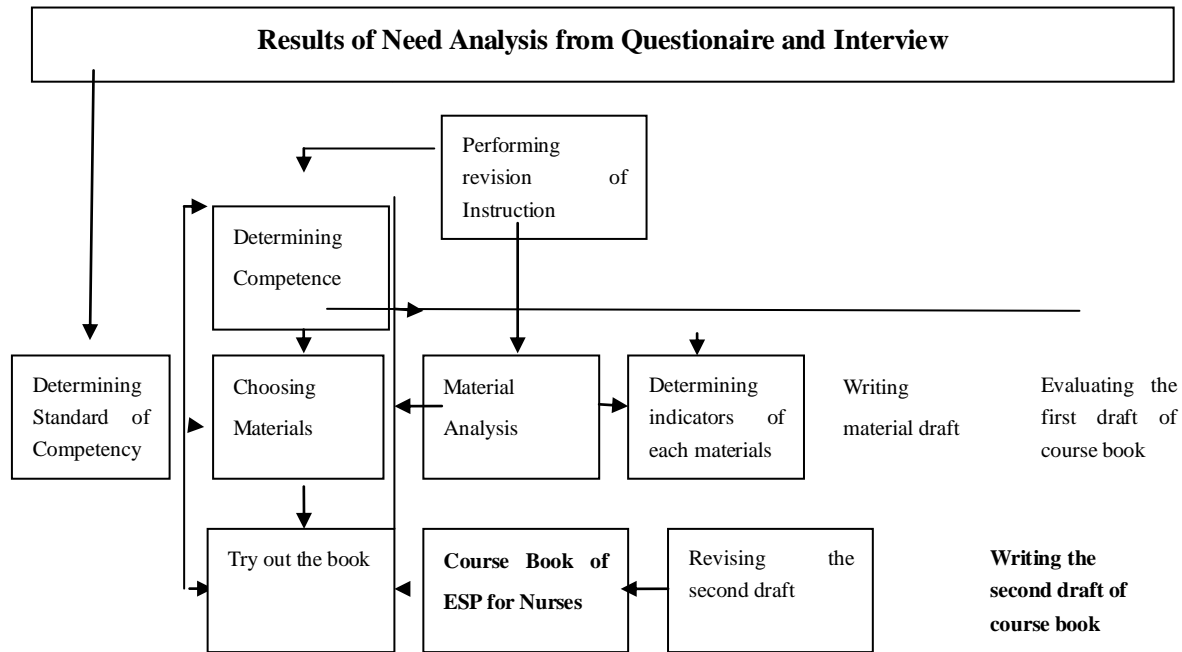


Figure 2. The Procedure of Designing ESP Materials for Nurses

The design procedure of these ESP materials has been verified by ESP experts and a curriculum expert to meet requirements of validity and reliability of the findings. All the steps in the design should be adapted to findings from the real Need Analysis obtained from both questionnaire and interview that the materials selected really reflects the use of English used by nurses in medical settings.

5. Conclusions and Suggestions

The Data from the Students' Questionnaire and interview have illustrated a number of issues which need to be considered as they offer significant implications for introducing curricular change. First of all, the findings of the study revealed the need for setting up a language course with a clear focus on English for Specific Purposes and on the target discipline, English for Nursing. In addition, there is a call for a highly specific ESP course to be implemented in the experimental needs-based syllabus document as part of the curriculum Renewal process (Richards, 2001).

It was also indicated that the present situation arrangements are not at all in agreement with the "identified needs" (Long, 2005) of the target group of learners. Furthermore, the fact is stressed that the participants have different expectations with respect to their needs to use the target language, for study or professional purposes, which highlights the merits of needs analysis concerning the identification of the learners' needs.

In conclusion, there were several important aspects from the needs analysis questionnaire, situational analysis and interviews that helped to shape the course, these are: the skills most needed for their job are listening and speaking and the context of the course was designed mostly for outpatient situations. Among the topics related to the nurses' field and that they needed and wanted the course to cover were educating the patient, telephone skills, giving

advice, giving instructions, checking understanding, explaining drug interactions and administering medication. Although the complexity of adopting a needs-based approach to ESP cannot be ignored, needs analysis as a decision making process which informs course design specifications (Bosher & Smalkoski, 2002) is regarded as an indispensable component of any ESP course (Long, 2005). Therefore, it must be performed before designing course materials of ESP.

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