NEED ANALYSIS OF ESP MATERIALS FOR THE MEDICAL LABORATORY TECHNOLOGY STUDENTS IN THE HEALTH POLYTECHNICS SEMARANG

Submitted to the Department of Language Studies, Graduate School of Muhammadiyah University of Surakarta in partial fulfillment of the requirements for the degree of Master of Education

By:
ANIK ANIQOH
S200160042

DEPARTMENT OF LANGUAGE STUDIES
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APPROVAL

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BY:
ANIKA NIOH
S200160042

Has Been Approved By

Primary-Supervisor

Prof. Dr. Endang Fauziati, M.Hum.

Co- Supervisor

Dr. Anam Sitojo, M.Hum.
APPROVAL OF PUBLICATION MANUSCRIPT FOR SUBMISSION

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Submitted by
Anik Aniqoh
S200160042

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The board of examiners certifies that the thesis is eligible for submissions.

Board of Examiners

1. Prof. Dr. Endang Fauziati, M.Hum.
   (Primary Supervisor)

2. Dr. Anam Sutopo, M.Hum
   (Co-Supervisor)

3. Manus Hafwat Hikmat, Ph.D.
   (Examiner)

Surakarta, 22 - 5 - 2018

Director of Graduate School

[Signature]

Prof. Dr. Bambang Sumardjoko, M. Rd.
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I hereby confirm that the manuscript entitled "NEED ANALYSIS OF ESP MATERIALS FOR THE MEDICAL LABORATORY TECHNOLOGY STUDENTS IN THE HEALTH POLYTECHNICS SEMARANG" is an original and authentic work written by myself and it has satisfied the rules and regulations of Universitas Muhammadiyah Surakarta with respect to plagiarism. I certify that all questions and the scores of information have been fully referred and acknowledged accordingly.

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Name : Anik Aniqoh
ID Number : S200160042
Department : Language Studies
Field of Study : English Education

Surakarta, May 22nd, 2018

Anik Aniqoh
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ABSTRACT

The process of preparing teaching materials included the series of steps starting from identifying, selecting, adapting, and evaluating specific necessities of the students. In doing these process above especially for teaching English for Specific Purposes must consider the Need Analysis. In this research it would draw that the need analysis is very important to reach the objectives like: 1) to identify the students’ needs of ESP Material for the Medical Laboratory Technology department in the Health Polytechnics Semarang, and 2) to explore the lectures’ needs of ESP Material for the Medical Laboratory Technology department in the Health Polytechnics Semarang. The study involved 80 students and 3 lectures as the experts of the study. This research was qualitative type research using interview and questionnaire to collect the data. The data later were analyzed based on need of analysis from the theory of Duddley-Evans and St. John (2009). The findings of the need analysis from students and teacher then were figured out to show that teaching English included the four all language skills components like listening, reading, speaking, and writing and the two language contents like structure (grammar) and the knowledge of vocabularies. Both language skills and contents should be necessary for the students’ academic studies and target career. Choosing the certain topics related to English for medical laboratory technology such as health issues, medical laboratory technology staff duties, responsibilities working in the hospital laboratories, medical administration report, and so on also plays important attention to the stakeholders’, lecturers’, and the students’ needs. Based on the reasons, the need analysis, a small part of the whole project was done as the compliment to support the proposal of new English Specific Purposes material for students of Medical Laboratory Department. It is also suggested that textbook provided by designers and lecturers should involve the progressive needs of the students.

Keywords: English Specific Purposes, Need Analysis, Medical Laboratory Technology

ABSTRAK

Proses mempersiapkan bahan ajar melibatkan serangkaian tahapan mulai dari mengidentifikasi, menyeleksi, mengadaptasi, dan mengevaluasi kebutuhan-kebutuhan tertentu dari mahasiswa. Dalam melakukan proses tersebut khususnya untuk pengajaran Bahasa Inggris untuk tujuan khusus haruslah mempertimbangkan suatu analisis kebutuhan. Dalam penelitian ini akan dijabarkan pentingnya analisis kebutuhan untuk mendapatkan tujuan penelitian yaitu : 1). untuk mengidentifikasi kebutuhan siswa terhadap materi ajar Bahasa Inggris untuk tujuan khusus dilingkup jurusan Teknologi

Kata Kunci: Bahasa Inggris Tujuan Khusus, Analisis Kebutuhan, Teknologi Laboratorium Medik

1. Introduction

The number of students who wants to be the medical laboratory assistants after graduated from the Medical Laboratory department in Indonesia has increased over the years. In relation to globalization era, the graduated students enforced to be able to use English whether in passively or actively in communication, because it is very important to support their careers.

Teaching English for specific purposes is one of the subjects study taught in the Medical Laboratory department to support their knowledge in the study. It is because the specific English language competence may also carry out responsibilities of being medical laboratory assistants. Another reason is since there are developing numbers of International standardized hospitals, lecturers must also be challenged to develop the quality of students in that field. One of the steps to improve the students’ quality is to design ESP teaching materials based on need analysis.
Preparing students to become able to use English in academic, professional or working place setting is dealt with ESP (English for Specific Purposes). As it is about specific students, therefore it must be tailored to the needs of these students (Akbari, 2014). It can be inferred that it is a way of teaching or learning English for specialized subjects with some specific vocational and educational purposes in mind. As the drawn up of previous research, Setiawati (2016) had done a study in APIKES (Health Medical School) which resulted that ESP reflects learners’ specific purpose in learning the target language, being a response to learners’ needs and the acquisition of language relevant to communication outside the classroom, especially in their studies and future careers. That was why the study of the need analysis of ESP material in Indonesia was categorized as seriously considered.

One of the ESP materials was English material designed for the Medical students in other region of Indonesia, especially in Semarang. The Medical Laboratory Technology, one of new department in the Health Polytechnics Semarang is one of institution which holds medical laboratory technology. Its goal is to prepare human resources especially in medical laboratory technology staff. It accomplishes this goal through some programs. One of them is by giving English material at the first and sixth semester. At the first semester, the English material tends to focus in English for Specific Purposes (ESP). Through this program, MLT department expects English language teaching meets the specific academic and professional communication needs of learners who seek to improve their language skills.

According to Duddley-Evans and St. John (2009) there are eight components in today’s concept of needs analysis which have been grouped into five broad areas including: 1. target situation analysis and objective needs analysis (e.g. tasks and activities learners will use English for); 2. linguistic analysis, discourse analysis, genre analysis, i.e. knowledge of how language and skills are used in the target situations; 3. subjective needs analysis, i.e. learners’ wants, means, subjective needs-factors that affect the way they learn (e.g. previous learning experiences, reasons for attending the course, expectations) 4. present situation
analysis for the purpose of identifying learners’ current skills and language use; and 5. means analysis, i.e. information about the environment where the course will run.

In EFL learning, especially in teaching ESP, teaching content is geared to the special language ‘repertoire’ pertaining to the specialized aims that are required of the learners. Therefore, designing materials should be adapted with learners’ need of studying English for certain need. As Bracaj (2014) explained that students learn English for a specific purpose, represented by studying subject matter, to gain and develop appropriate knowledge and skills through English.

Related to the explanation above, as a matter of fact, this research dealt with the relationship between ESP and need analysis which cannot be separated each other, it is in accordance with Beshaj (2015) that the necessity of ESP method related to international exchanges and interactions that the recent conditions need to have people know not just general English but to have extensive English vocabulary on various specific scientific such as judicial, social, medical fields, and so on. Therefore it is obvious that knowing English and using English for specific purposes is a challenge. People would be much appreciated if they have good command not only the general foreign language but also have a specific field.

Talking about the need analysis, there is another theory telling that “need analysis (NA) is a vital stage in designing ESP materials” (Belcher, 2006, p.135). It represents a basis in identifying the course objective, and learners’ communicative and linguistic needs. Many researchers agree that NA reflects necessities, wants, and needs of learners in their subject area. Here, need analysis has a crucial function in designing ESP material for students of Medical Laboratory Technology. Need analysis is used to know the fact and the real situation based on learners and teachers’ information. Need analysis will evaluate the relevant and the compatible handbook for learners and lecturers.

A basic course begins with the learners’ needs. It is understood preparing learners to use English within academic, professional, or workplace environment (Basturkmen, 2010: 17). Songhori (2008: 2) states that needs analysis has a
crucial role in the process of designing and carrying out any language course. Barantess (2009) argues that need analysis consist of a procedure to gain the information about performance and target performance. Need analysis detected before the course might change during the course and the teacher take note of those change. Generally, in designing needs analysis requires the following procedures, those are; decide what information to gather and why, when, from whom and how to gather it, gather the information, interpret it, act on in, and evaluate the effect (Graves, 2000: 73).

Needs Analysis is then an essential stage as it tells syllabus developers about the specific language used by the learners in their own contexts. The research objectives are: 1) to identify the students’ needs of ESP Material for the Medical Laboratory Technology department in the Health Polytechnics Semarang, 2) to explore the lectures’ needs of ESP Material for the Medical Laboratory Technology department in the Health Polytechnics Semarang.

2. Research Method

In doing research procedure, it is used a qualitative method. Then in collecting the data, the writer has done two steps like interview and questionnaires. The data then are analyzed to know the students’ need in studying English. The technique of triangulation is used to make the result valid. Triangulation is the most frequently used and easy to implement strategies.

Participants of this study were 80 medical laboratory technology students at the first semester in the Health Polytechnics Semarang (they were randomly chosen from 2 classes), 2 English lecturers, and 1 person who worked as a staff. The data were collected from several sources such as medical laboratory technology students, English lecturers, the staff, and ESP experts. It was intended to provide different perspectives, which supports researchers to analyze about something from a lot of points of view.

The instruments used were questionnaires focusing on personal information and English proficiency, students’ interest on English language skills, the conditions that need English for medical laboratory technology students, medical
laboratory topic for sharing with colleagues and patients, students’ favorites activities in learning English, and topics the medical laboratory students want to learn. The writer completed the information of ESP materials for medical record students by interviewing 2 English lecturers in MLT and 1 staff working at the campus. The questionnaire data and the interview data were analyzed qualitatively.

3. Research Findings

This section describes the results of need analysis about the importance of designing ESP materials based on students’ needs and lecturers’ needs used in the Medical Laboratory Technology. The findings were collected based on the questionnaires and interviews.

1.1 Students’ Need Analysis about ESP Materials

According to Duddley-Evans and St. John (2009) there are five components in today’s concept of needs analysis which have been grouped into:

3.1.1 Target Situation Analysis and Objective Needs Analysis

Target analysis and objective analysis are connected each other. They involve tasks and activities that the learners will use English for. Since this research is about designing ESP materials for the Medical Laboratory Technology Department, so its target analysis should concern about such English Specific Purposes used in the hospital and in the laboratory areas. While its objective analysis should concern to the specific expressions used for communicating in those places. Therefore teachers hopefully would be able to facilitate the materials about English expressions used to communicate with patients, doctors, and also the laboratory assistants.

Based on the interview about the usage of the existing material in EFL learning in the MLT Department, unfortunately, the learner did not get enough those kinds of materials mentioned above, therefore it is necessary to set a plan to provide the ESP materials for working in the hospitals and the laboratories.

“Well, I think this book is for TOEFL ya mom. No lesson about the medical Laboratory information. Well, I think we must include the
material about health knowledge. In this book is all about grammar” (Answer, Student A)

3.1.2 Linguistic Analysis, Discourse Analysis, and Genre Analysis

Linguistic analysis, Discourse analysis, and Genre analysis are three important parts which support each other to identify the students’ need. They describe about knowledge of how language and skills are used in the target situations.

From the linguistic analysis, it was found that from the four language skills like listening, reading, speaking, and writing taught in the MLT department, the speaking activity seemed to become the highest priority in EFL learning. It can be proven from the questionnaires results found that almost half of students (46.25%) agree to use English after study and 100% of students agree that it is very important to study about expressions which will be useful supporting their careers like handling telephone, opinions, compliments, etc.

Then from the discourse analysis, students’ need can be elaborated with providing the ESP materials about giving tasks and activities based on the specific topic like dialogues among patients, laboratory assistants, and doctors. Since the discourse is about learning situation and interaction, so the students should be taught about such kinds of useful expressions how to do the dialogues with the doctors, patients, and the laboratory assistants.

The last is about genre analysis, so the students should be facilitated with the text materials about knowledge of how language and skills are used in the target situations; for example procedure and report texts. It is proven based on the questionnaire result that 58.3% students agree that selecting text materials for ESP are about the job description of the laboratory assistants, work safety, understanding SOP working in the laboratory, writing report, etc.

3.1.3 Subjective Needs Analysis

This is the third part belonged to the need analysis discussing about learners’ wants, means, subjective needs-factors that affect the way they learn (e.g. previous learning experiences, reasons for attending the course,
The conditions happened in the MLT departments proven that students did not get enough knowledge about the materials related to their work field and study. In other words, students eventually had studied the materials about TOEFL provided in the existing book. However, the lecturers had still taught about the medical laboratory in the limited portions. Therefore, this condition has proved the students have not got the learning experience as much as they need from the course materials. For that reason, it is necessary to propose the ESP materials for the Medical Laboratory Technology students. This following interview supported the reasons above.

“…well, the layout is poor, its cover is not attractive. I think this book is not English for Medical Laboratory. It is an ordinary English book. From the layout…I think it is also bad, yeah, very very bad. All is provided in text and less illustrations.” (Interview1, answer3)

3.1.4 Present Situation Analysis

Present situation analysis is about the purpose of identifying learners’ current skills and language use. In this findings the writer found that the 77.5% of students met difficulties in speaking English because of the lack of vocabularies, 61.25% felt difficult in understanding English text, 70% were unfamiliar with the studying listening, and 75.5% found difficulties in making composition.

3.1.5 Means Analysis

The last is about means analysis. In this section it talks about information about the environment where the course will run. From the findings most of students agree that hospital and classroom are the good places to learn for MLT students.

1.2 Teachers’ Need Analysis about ESP Materials

1.2.1 Target Situation Analysis and Objective Needs Analysis

Target situation and Objective needs analysis referred as the tasks and activities learners will use English for. Based on the target situations and objective analysis the teachers stated that the learning process of English according to Curriculum for Diploma 3 is 3 SKS. Then they recommended that 3
SKS should be in the form of 1 English SKS for theory and 2 SKS for practice because it supports the career demands. Other statements from the teacher about the need analysis stated that 1). Learning English will be useful if it is provided the materials containing about understanding in using the materials and tools in the laboratory, 2). English is used to make a report for MLT students, so it is also necessary to be provided ESP for Medical Laboratory department (98.75%), and 3). Selecting collection of the topics for sharing with students should be matched with the academics and career demands in Medical Laboratory Technology. The following table supports about the above opinion of the teachers based on the interviews.

<table>
<thead>
<tr>
<th>Topics</th>
<th>Sub Topics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>Introduction, hobbies, dealing with patients</td>
<td>1</td>
<td>8.3%</td>
</tr>
<tr>
<td>Job</td>
<td>• Job description in the laboratory</td>
<td>7</td>
<td>58.3%</td>
</tr>
<tr>
<td></td>
<td>• Work safety</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Responsibility in the laboratory</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Reading, Understanding, and making an SOP</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Reading Manual Kit</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Reading, Understanding Medical report</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Knowledge of Tools in the laboratory and understanding how to use them</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration</td>
<td>• Reading and Understanding journals</td>
<td>2</td>
<td>16.6%</td>
</tr>
<tr>
<td></td>
<td>• Writing a practicum report</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Medical Administration</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Doing presentations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>• Knowledge of Phlebotomy</td>
<td>2</td>
<td>16.6%</td>
</tr>
<tr>
<td></td>
<td>• Making reagents</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total meetings</td>
<td>12</td>
<td>100%</td>
</tr>
</tbody>
</table>

1.2.2 Linguistic Analysis, Discourse Analysis, Genre Analysis

Linguistic analysis, discourse analysis, genre analysis are categorized about knowledge of how language and skills are used in the target situations. From the findings, the teachers suggest that English materials about useful expressions should be studied by the students were handling telephone, opinions, compliments, writing practicum report, etc. Those expressions are important
because they are used in the work field and can be applied in the speaking activity class (68.75%). Evidence from the interview with the teachers saying that it is important to link English to the other seven subjects’ studies are Work Safety in the laboratory, Medical Report, Bacteriology, Phlebotomy, Clinical Chemistry, Microbiology, and Immunoserology.

“With 7 critical subjects study in MLT, they are clinical chemistry, hematology, paracitology, microbiology, toxicology, immunology serology, and cytohistology. Then, the activities must be added with the reality in the field, like observation, presentation, and reporting. So, students can be given with the task through independence study, because the 7 critical studies are belonged to the competence tests for the students. (Interview6, with the lecturer)

### 3.2.3 Subjective Needs Analysis

Subjective needs analysis here are teachers’ wants, means, subjective needs-factors that affect the way they learn (e.g. previous learning experiences, reasons for attending the course, expectations). The result of the research provides the capture career demands are important according the teachers’ view. Since the students were expected to have knowledge and proper attitude in the Medical Laboratory environment.

### 3.2.4 Present Situation Analysis

Present situation analysis is having the purpose of identifying learners’ current skills and language use. Based on the teachers’ point of views in the interview, most of them stated that Medical Laboratory Department has a vision that students have the critical thinking and good attitude. To make a critical thinking of the students achieved, the teachers must give the learning needs for the students. It means that the teachers are able to apply such an interactive classroom based on students’ centered.

### 3.2.5 Means Analysis

Means analysis defines as information about the environment where the course will run. The findings found that hospital, laboratory, and classroom are appropriate places to study English since those places give real experiences in teaching learning process.
4. Discussions

According to the findings from the students’ and the lecturers’ needs, it is shown that the process of EFL learning in the classroom does not run quite well since the teachers and students used inappropriate material, in here, English for general. This condition influences the time schedule in EFL learning, because with the time given, the lecturers only spent for teaching general English and did not give maximally the materials about ESP for MLT.

Secondly, the quality of course materials is poor because it has not met with the requirements of the quality of material development like Cunningsworth (1995) theory which is the principle the writer used, therefore, designing and selecting the materials related to the purpose of the students’ work field are influencing them to study EFL better. Then, the most eagerness activities of students in English class are sorted from reading, listening, speaking, and writing.

Thirdly, since the course material is not supported the students’ and the teachers’ needs in teaching learning process, so it is important that the selected materials given to the students must answer the real necessities of students in learning English to prepare their future at the field of medical laboratory and health information. In this study the result was in line with Setiawati’s study (2016) since these findings resulted that the need analysis demonstrated all four of the language skills were necessary for their academic studies and their target career. It can be proven from the findings of results from questionnaires and interviews that the students of Medical Laboratory Technology must be able to use English both in written and spoken. Then, in order to guide them to study English thoroughly, it is very important to provide them such selected materials namely English Specific Purposes which is linked with seven subject studies including in Medical Laboratory Technology knowledge.

Finally, it can be summed up based on those findings the contents of the course book must be evaluated and redesigned because of some reasons; they are (1) need to be adjusted with visions and missions in the Curriculum of Diploma 3 Medical Laboratory Technology, (2) must be supported with the academic studies and the future career, and (3) should be included the health information which
compatible with many activities that concerned to the students centered learners, and (4) should consider that the English materials prototype later must be linked with the giving more portions to the seven subjects studies in the Medical Laboratory Technology. The seven subjects studies supported in English materials are Work Safety in the laboratory, Medical Report, Bacteriology, Phlebotomy, Clinical Chemistry, Microbiology, and Immunoserology.

5. Conclusions

Findings of the need analysis demonstrated that all four of the language skills were necessary for their academic studies and their target career. This study proposed new ESP materials based on the stakeholders’ needs. From the explanations above, it can be concluded that (1) the ESP materials for MLT department is very needed, (2) to design ESP materials, it is suggested to choose the topics related to the MLT field study, like the health information, working in the laboratory, medical report, etc. (3) activities that provided in the ESP materials should show students’ centered learning.

BIBLIOGRAPHY


