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# **THE STEP-BY-STEP ENGLISH FOR ACADEMIC PURPOSE (EAP) MATERIALS DEVELOPMENT FOR STUDENTS OF ENGINEERING FACULTY**

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## **Abstract**

Ubaya Language Center (ULC), as an institution supporting system in a University, has an obligation to focus the teaching and learning process to the English for Academic Purpose (EAP) which is one of the branches in English for Specific Purpose (ESP). As a teaching coordinator in ULC, the writer has the responsibility to establish the curriculum, develop the materials, and select the teachers responsible for the classes. In this paper, the writer would like to focus on the development of the materials used to teach Engineering students in University of Surabaya.

As emphasized by Ellis and Johnson (1994: 115), the choice of materials has a major impact on what happens in the course. The teaching material can determine what the students will learn in terms of the vocabulary, structures, and functions of English. It can also have implications on what methods and techniques the students will use. Thus, in order to develop the most suitable materials for the students, several steps have been conducted in developing the materials. This paper discussed in details the steps taken in order to develop EAP materials which best suited the students based on the requirements of the University in general and Faculty of Engineering in specific. This included the needs analysis conducted before designing the materials, the development process of the materials, and the evaluation given by the users of the materials. The needs analysis was conducted by interviewing the Dean and the people in charge for the curriculum of the Engineering Faculty and distributing questionnaire to the students. The development of the materials was conducted by discussing with other English teachers in choosing the topics, vocabulary, and structure to be included in the materials. Finally, the evaluation was conducted by distributing questionnaire and interviewing the students using the materials.

## **INTRODUCTION**

The teaching of EFL (English as a Foreign Language) covers quite a broad area of study. Some institutions providing the teaching of EFL have chosen to focus mainly on the General English (GE), while some others prefer to focus on English for Specific Purpose (ESP). According to Hutchinson and Waters (1994:16), ESP can be subdivided into English for Occupational Purposes (EOP)/English for Vocational Purposes (EVP) and English for Academic Purposes (EAP).

Ubaya Language Center (ULC) is an institution supporting system in a University that does not have a language department. One of the faculties which is the responsibility of ULC is the Engineering Faculty. Since the engineering students are involved more on the science and technology areas, ULC has to focus the teaching and learning materials to the specific areas. However, since the students are still in the university, the focus needs to remain in the academic atmosphere. Therefore, the English for Academic Purpose (EAP) which is one of the branches in ESP is believed to be the most suitable to be given to the students.

One of the most important issues in developing ESP materials is whether the materials selected should be focused on the subject or they can be mixed with general materials. General materials focus on students' general ability to communicate more effectively, while subject-specific materials focus on a particular area of interests (Ellis and Johnson, 1994). When carefully selected, both general and subject-specific materials will equip the students with the necessary skills and knowledge, but subject-specific materials will have the chance to fulfill students' specific needs. Consequently, students will enjoy and feel more affinity for materials that they find relevant to their area of specialism.

In order to develop a suitable and authentic material, there are several steps that the writer followed. First, it is necessary to conduct a needs analysis to know the expectations of the people who are in charge of the Faculty of Engineering while not neglecting the interests or needs of the students. After conducting the needs analysis, the material development stage can be done. At this stage, what needs to be considered is to choose between subject specific passages, more general passages, or a balanced combination of both. Finally, after the materials have been applied in the teaching and learning process, it is also important to evaluate the materials. These three stages will be explained further in this paper.

### PRE-DEVELOPMENT STAGE

The first step taken in attempt to develop an authentic, appropriate, and acceptable EAP learning material is conducting needs analysis. The first step in needs analysis was interviewing the Dean of the Engineering Faculty, the Head of all Departments in Engineering Faculty, and the people involved in designing the curriculum in the Engineering Faculty, all of which will be mentioned as the Authorities. The Authorities were asked to describe the profile of the competencies required from their students after the students completed the EAP program. The response given by the Authorities were described in the following figure 1.1.

Language Competence	Required Skill Mastered by the Students
Listening	Understand lecture in English
Reading	Understand, paraphrase, and summarize English Engineering Passages
Speaking	Deliver presentation in English
Writing	<ul style="list-style-type: none"> <li>- Describe graphs, charts, etc.</li> <li>- Paraphrase and summarize</li> </ul>
Translation	Translate and summarize English passages to Indonesian
TOEFL	450 in the first semester

figure 1.1

After interviewing the Authorities, the step that should not be overlooked is to identify the students' needs and interests. Although It is obvious that the students' subject interests will be around science and technology issues because they are students of faculty of Engineering, their interests in using English itself remain unknown. Therefore, the writer conducted a survey using questionnaires and random interview to the students. The result of the questionnaires and interviews were described in the following figure 1.2

Language Competence	Students opinion on their English Subject
Listening	Listening to the lecture
Reading	Reading material in English
Speaking	Speak, discuss, present in English
Writing	Write paper/report
Translation	Translate text from English to Indonesian

figure 1.2

After conducting the interviews to the Authorities and survey to the students, it can be seen from the result that they have similar response. Both the Authorities and the students expected to develop the students listening skills so that they were able to listen to lecture in English. While for the reading skills, both expected students to be able to read English materials although the Authorities expected a bit more from the students. On the other hand, the students expected more on the speaking and writing skills. They wanted to be able to speak, have a discussion, and deliver a presentation, and write paper or report in English. This was beyond the expectations of the Authorities which were only for the students to be able to deliver presentation, read charts and graphs, paraphrase, and summarize a passage. The only thing that the students could not describe was the TOEFL score that they should achieve. The Authorities expected the students to have a TOEFL score of minimum 450 before they

were allowed to join the EAP class. This TOEFL requirement will not be discussed further because it is irrelevant with the EAP itself.

In one part of the questionnaires, the students were asked to put into order of which part of English language that they believe to be the most difficult to the easiest. The result was as follow:

1. Vocabulary
2. Grammar
3. Speaking
4. Writing
5. Pronunciation
6. Reading
7. Listening
8. Translation

Most of the students put vocabulary as the most difficult part of English while some believed that grammar is the most difficult one. The similarity of the answers was that almost all of the students put translation as the easiest part of English.

From the result of the needs analysis, the writer could then decide on what part of language skills deserve to have more attention and be included in the material. In the following stage, the process of selecting the materials will be discussed briefly.

### **DEVELOPMENT STAGE**

The second step of developing an authentic, appropriate, and acceptable EAP learning material is selecting carefully and dividing accordingly the material to suit the purpose of the EAP program itself. In designing the material, the writer needs to focus on the authenticity of the content of the material. Therefore, the passages used in the material should be in the context of the knowledge of the student. In other words, the passages can only be truly authentic in the context for which it was originally written (Candlin, 1991).

In developing the material for the Engineering students, the writer chose to apply the general English skills using subject-specific topics, in this case Science and Technology. Each chapter of the material was designed to cover all language skills but listening. Listening was excluded because it was a bit difficult to teach listening when the classroom was not designed for a listening class. Each chapter begins with simple discussions on general topic that leads to the topic discussed in it. The discussion is then followed by the introduction of the vocabularies that are going to be used in the passage. They are supposed to try and guess whether the words given are Noun, Adjective, or something else. After that, the students have to read the passage on science and technology topics and answer the reading comprehension questions that follow. In order to develop their vocabulary, the students are then asked to match the new words given with the meanings. Then, they are expected to find the words families and apply them into sentences. Finally, there is a grammar explanation at the end of the chapter. The grammar focus is the forms which are used in most science and technology books. In deciding the grammar focus, the writer chose several books on science and technology randomly and analyzed the most common grammatical patterns occur in the books. It was found that the most common grammatical patterns were Noun Phrases, Noun Clauses, Adjective and Adverb Clauses including the reduced forms, and Passive constructions. The activity that follows the grammar focus is in the form of analyzing the reading passage that they have read, then, the students are expected to find the patterns and give the meanings of the words or sentences. At the end of each chapter, the students are supposed to write a summary on what they have learned in the chapter. At the end of the semester, they have to present their summary on one of the chapters that they have learned.

After developing the materials, it was time to put the material into practice. As a material developer, the writer should not stop at this stage. The last but must not forgotten stage is to evaluate the materials.

### **POST-DEVELOPMENT STAGE**

The materials have been put to practice. The next questions that come to mind are what is the result of the teaching and learning process? Do the students have difficulties in using the material? Do they

enjoy it? These questions can only be answered by evaluating the materials. At this stage, the students were asked to give feedback for the book that they had used. The result of the questionnaire can be seen in the following figure 1.3.

The length of the passages in every unit is	Too long 34.91%	Enough 65.09%	Too short 0%	
Do you think the text suits your ability and interest?	Yes 68.87%	No 31.13%		
The language difficulty level in every unit is	Too easy 0.94%	Easy 30.19%	Difficult 65.09%	Too difficult 3.77%
The most difficult part of the material is	Vocab 2.1	Grammar 1.7	Topic 2.0	
In general, are you satisfied with the material?	Yes 74.53%	No 25.47%		

figure 1.3

As shown in figure 1.3, more than half of the students who used the textbook thought that length of the passages in it were enough although about 35% thought that the passages were too long. Furthermore, there were around 69% of the students who considered the texts matched their ability and interest. The difficulty level of the textbook was as expected since easy materials will not be a challenge and will not stimulate learning and neither would materials which are too difficult. In question 4 of the questionnaire, the students were expected to put the difficult part of the textbook into order with 1 being the most difficult, and 3 the easiest. From the result of the questionnaire, it can also be seen that the most difficult part of the material is the grammar focus although the difference is not significant. In general, about three quarter of the students were satisfied with the textbook.

As a material developer, the writer was not supposed to be satisfied with the result of the evaluation since there seems to be plenty of room for improvement. There were several areas that could still be improved such as the length of the passages and the suitability with the students' interest.

## CONCLUSION

EAP is a specific area of study, and therefore require a specific materiak to focus on. EAP material writers should really consider many aspects in developing the materials. Knowing the needs of the learners seems to be a very important step before designing the material. After understanding the needs of the learners, selecting the authentic sources that suits the learners ability can be quite a challenge. Finally, conducting an evaluation is necessary to know the feedback from the learners, and it can also be an input towards designing an even better material.

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