

## Exploring Students' Need for Developing Material of English for Civil Engineering

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### Abstract

Having tailor-made materials for ESP class can really be a hand to achieve learning goals and also to help students to achieve targeted skills and knowledge in ESP class. This study investigated need analysis of Civil Engineering students in a university in Indonesia in order to explore the needs in developing materials for Civil Engineering students. Need analysis is an important steps in terms of developing materials. In order to detect students' views toward what they need to learn, their preferred learning style, and their attitudes, interest toward learning English, a revised questionnaire was utilized. There were 61 students involved in this investigation. There was fifteen questions-questionnaire given to the students. An interview was also conducted as triangulation of the data. The results revealed that the students considered that the four macro skills are the most important component which neede the most practice, whereas they found grammar as the component that they most resented and had the least expertise in. Moreover, they tended to have various activities when they learn English. They needed various activities to draw their attention and motivation in learning English. It is hoped that the findings from this study can assist teachers and surriculum and syllabus designer to consider the students' real needs and try to design and develop materials which can fulfill the present gap.

**Keywords:** ESP, Material Development, Need Analysis.

### Introduction

Material is an important need for teaching and learning process. Material can help both for teachers and students to achieve their teaching and learning goals. It also have an important role in helping the success of learning process. Besides, it also becomes a media for teaching and learning process. Its role can be more crucial especially for ESP or English for Specific Purposes class.

In ESP, its material is surely different from material for general English. ESP needs a specifically-designed since it has specific purposes. The material should be designed precisely which can meet students' need. As it is claimed by Paltridge and Starfield (2013) that ESP focuses on learners' needs, and promotes their critical thinking (Kusumaningrum, 2015). It strengthens that selecting and choosing appropriate material are significantly needed in developing material for ESP.

Since different group of students will definitely need different specifically-designed materials, it can be a treager for the teachers or lecturers or instructors of ESP to consider about creating their own material for teaching ESP. Undersatanding their students' characteristic and need can help them in designing their material for teaching ESP. By having tailor-made ESP material, it is hoped that the material will suit the students' need of learning material.

In line with the reason above, this study tries to explore students' need in ESP, especially English for Civil Engineering. This study focuses on students' need analysis at Tidar University. It exposes the students' need in English for Civil Engineering class. By conducting the students' need analysis, it is expected to be a hand for the lecturer further to design ESP material for his or her class.

## **Review of related literature**

### **English for specific purposes**

Learning English to get into wider chance on competing globally or even internationally has been widely spread nowadays. People need to equip themselves with English skill related to their job qualification. As stated by Hutchinson & Waters (1987), that ESP started because of the demand for a new brave world in the English language learning. It shows that ESP rose as an approach to fulfill specific needs of English learning. It is in line with Johns and Paltridge, and Belcher's (2001) definition, they defines that English for Specific Purposes (ESP) is a movement based on the proposition that all language teaching should be tailored to the specific learning and language use needs of identified groups of student.

The growing demand of English courses tailored to specific needs gives an effect on the study of language. Various and different meaning from one context to another context simplify reveals that there are important differences between, say, English for politics and that of engineering. This idea married up naturally with the development of English courses for specific groups of learners. Thus, ESP has become an important part of English language teaching.

For specific groups of learners, they have different purposes on learning English from those who learn English for general. ESP should reflect the fact that many ESP teachings, especially where it is linked to a particular profession or discipline, makes use of a methodology that is different from the methodology used in the teaching of General English (Adhabiyyah, Mahanum & ‘Aliyatulmuna, 2014).

The same condition is also faced by Civil Engineering students of Tidar University. They have major in Civil Engineering, but they are still needed to learn English. As proposed by some scholars before, English for ESP is totally different from English for general. It simply clarifies that Civil Engineering students have specific needs and specific goal in learning English. Their needs and goal in learning English can not be compared by those who learn general English. Specific material needs to formulate for them in learning English. As added by Paltridge and Starfield (2013) that ESP refers to the teaching and learning of English as a second or foreign language where the goal of the learners is to use English in a particular domain. In conclusion, Civil Engineering students of Tidar University needs specific material in learning English related to their domain, in this case is Civil Engineering.

### **Students’ Need Analysis**

In developing material for ESP, students’ need is the crucial part. Since the material for ESP should meet the students’ need, finding out the students’ need is essential to execute at the early stage in developing the material for ESP. The relevance of the material and students’ need will significantly improve the students’ motivation and thereby make their learning better.

Suiting particular needs for students will give an advantage in developing the material. The concept of students' needs is one of the essential criteria which is adopted and validated in ESP. A needs analysis then aims at defining the needs of the learners as accurately as possible to specify the different uses of English for 32 pursuing academic or occupational purposes. For instance, as explained by Robinson (1991) that ESP is based on a needs analysis, which aims to specify it is that students have to do through the medium of English. Once being stated, it is important to explain the place that a needs analysis occupies in the whole process of ESP teaching and learning and the role it plays as an important means of investigation and data gathering.

In gathering information related to students' need, there are some factors must be taken into consideration. Those factors deal with the requirements and objectives that must be attained by the students during the period of their learning. The second concerns the aims and purposes after his training as for instance when the students apply for a job or occupation, and the way they use their experiences of English for real communicative purposes required in such a job (Dakhmouche, 2008).

For those reasons stated before, this research emphasizes on students' need analysis for gathering data needed to develop the material. Getting sufficient information about what students need in English learning in relation with material development, will hopefully enable the students to function adequately in a target situation.

### **Research method**

Qualitative method was used in this study. The information related to the students' need was collected through a questionnaire, seemed it was the most appropriate tool for gathering the views and the needs of the students. An opened interview was also conducted in order to clarify the data from the questionnaire. For the questionnaire, it consisted closed questions which were divided into three parts. Part one sought personal information of the students. Part two aimed to find out their perception about learning materials. For part three, it asked them about some learning activities they tend to have in learning English.

While for the interview, it was in a form of open interview. The students were once again, asked about learning materials they want to have in learning English for Civil Engineering. The students were also interviewed about their difficulties in learning English and preference activities or methods in learning English. The interview was used for triangulation of the questionnaire. The questionnaire was distributed to total 61 students of Civil Engineering. The frequency of the students' opinions and view about their needs and wants in learning English were treated as a data. The statistical devices used for analyzing those data were percentage and frequency distribution.

## **Findings and discussion**

### **Learning goals**

There were there aspects of the questionnaire for investigating the students need in learning English. The first aspect investigated about learning goal. This part was consisted of three questions, they were about their learning goal, their level in acquiring English, and their difficulties in learning English. In the first question, there were seven learning goals offered to the students, such as mastery on vocabulary, mastery on grammar, ability to respond some expressions, ability to differentiate expressions in formal and in informal situation, ability to conduct speech acts, ability to communicate in simple English. The result showed that most of the students (31,15%) expected to be able to communicate in simple English. In the second question, the students were asked about their level of English proficiency. It was found that most of them (54,10%) was a beginner in English proficiency. They revealed that they had low or limited especially in grammar and vocabulary. In the last question of the first aspect, the students were asked about their barriers in learning English. There were six barriers investigated in this part, they were difficulties in understanding sentences, mastery on grammar, creating or building sentences, understanding the meaning of sentences, vocabulary, reading texts in English. It was revealed that most of them (27,89%) resented grammar as their barrier in learning English.

### **Learning materials**

For the second aspect, it investigated about the learning materials. There were five questions related to the learning materials, such as their preferred topic, input for listening, input for speaking, input for reading, and input for writing. For the topic, there were four topics offered to the students including topic related to Civil Engineering, environment, daily life, and current issues. 78,69% of them stated that they tended to have learning materials related to their field which is Civil Engineering. They preferred the learning materials related to the field that they are studying on. In second question, there were four input detected for listening, they were simple dialog, short monolog, various expressions, and texts with pictures. The majority of the students (42,62%) chose simple dialog model for their input in listening section. The third question was input for speaking. Having three inputs for speaking, most of the students (52,46%) preferred to have simple dialog model for speaking. While for input in reading, they were given four options as simple reading text, authentic reading text, pictorial reading text, and general reading texts. Maximum subjects (52,45%) chose authentic reading material, still related to their field, as the main input for reading. While for writing, most of the students expected to get input in writing such as formal letters or matters related to their work field such as job applications, short messages or memos, etc.

### **Learning activities**

Last but not least, the third aspect investigated in the questionnaire was about learning activities. There were four groups of activities covered the four macro skills. The first skill was listening. For listening activities, there were six activities offered to the students. Those were discussing monolog and dialog, identifying keywords in monolog and dialog, identifying subject and setting of monolog and dialog, identifying expression in monolog and dialog, completing response in dialog orally, and completing response from dialog in written. The majority of the students (24,59%) tended to discuss monolog and dialog for listening activity. For speaking activities, from seven activities such as practicing dialog in front of the class, practicing dialog based on pictures, role-play, exchanging information,

discussing certain topic, retelling stories, and presenting a topic; 22,95% of the students stated that they chose to discuss certain topic with their group.

For reading activities, there were six options given to the students. Among of those, discussing texts with their group was the most preferred activity to conduct in reading. It held 32,79% of them chose the discussion. While for writing activities, out of seven options offered, most of the students (36,06%) chose to have writing activities by regarding correct grammar.

### **Other activities**

Beside the four macro skills activities, there were activities related to the language itself which were investigated in this study. Those activities were related to vocabulary and also grammar. The students were asked about activities which might improve their competence in vocabulary and grammar.

In area of vocabulary, there were six activities offered to the students, they were matching vocabularies with their meaning, interpreting the meaning of a sentence or paragraph with the words provided previously, interpreting the meaning of a sentence or paragraph based on their previous knowledge, interpreting the meaning of a sentence or paragraph based on the context, identifying group of words in the given texts. Interpreting the meaning of a sentence or paragraph based on the context was the most favourite activities chosen by the most students (37,71%). In the other hand, the students preferred to write sentences based on patterns that have been studied previously. 55,74% of the students chose the activity to conduct related to grammar. In addition, majority of them (57,38%) intended to have a group discussion or doing such activities with their friend in a small group.

### **Results of Interview**

In interview session, the students were only asked three different questions. Those questions were about the aspects of learning materials, their difficulties in learning English, and their preferred learning method in learning English. For the content, it was found seven most important matters needed to be considered in the materials. They were grammar, vocabulary, micro skills, exercises or tasks,

materials related to Civil Engineering, various activities, and detailed materials. The table below shows number of the students for each aspect revealed from the interview.

Table 1. Material Aspects

No.	Aspects	Number of the students
1	Grammar	6
2	4 Micro Skills	16
3	Related Material (Civil Engineering)	10
4	Exercises or tasks	9
5	Various activities	10
6	Vocabulary	3
7	Detailed materials	7
Total		61

Furthermore, the students were also interviewed about their difficulty in learning English and their preferred learning method. There were exposed six areas that they tended to be the most challenging area in learning English. There were vocabulary, grammar, speaking, listening, reading, and writing. While for the learning method, they stated the most four learning method in learning English, such as presentation, discussion, group work, and the use of multimedia. The table below shows number of the students for each of the elements.



Table 2. Students' Difficulties and Preferred Learning Method

No.	Questions	Answers	Number of the Students
1.	What is your difficulty in learning English?	a. Vocabulary	12
		b. Grammar	27
		c. Speaking	10
		d. Listening	3
		e. Reading	5
		f. Writing	4
Total			61
2.	What is your favourite learning method when you learn English?	a. Presentation	7
		b. Group work	14
		c. Discussion	23
		d. The use of multimedia	17
Total			61

## Conclusion

The students of Civil Engineering who had been investigated came from various background of English proficiency and various background knowledge about English. Considering the fact that the influence of different factors would produce a variety of needs for the students' learning (Peck, 1991), a lot of credibility is given to needs analysis as a prerequisite in any course design (Richterich & Chancerel, 1987). Students' need analysis is used as a device to explore the students' necessities, needs and lacks in order to develop a curriculum, syllabus, and course materials which are in accordance with the students/ requirements. Consequently, this study was aimed to explore the students' need as a beginning step to develop a course material by considering and taking the students' needs and wants in developing course materials especially for English for Civil Engineering university students.

Whereas this study may not be generalized to all universities in the country, it was such an attempt to identify the various needs and wants of the students at one

university with the hope that this description and analysis of the students' need in Tidar University can serve as a starting point to attract the attention of university teachers, curriculum and syllabus designers, and course materials designers and developers toward the importance of this analysis.

Furthermore, in designing and developing the course materials, a creativity and technology literacy are highly needed and recommended for those designers and developers since English for Specific Purposes requires worthwhile changes following the most current needs for its field (Moiinvaziri, 2014). A variety in activities, exercises, and tasks seem have an important role in engaging and keeping the students actively in the learning process which is needed for the students in order to make them achieving learning experiences and goals.

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