

The Importance of ESP In Learning Basic English For Engineering Students

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Abstrak

This study explores the linguistic demands of engineering students and their specific needs regarding English learning resources in the context of Widya Dharma University's Engineering department. Focusing on students in their third and fifth semesters, the research employs a descriptive qualitative approach to identify gaps in understanding these linguistic needs and the role of English for Specific Purposes (ESP) in enhancing their language skills. Data collection utilizes a questionnaire to gather insights from the student population. The findings underscore the critical role of ESP in bolstering engineering students' language competence, thereby enhancing their prospects in the global job market. This study provides valuable insights into tailoring English language resources to better meet the academic and professional needs of engineering students.

Keywords: Engineering, English, English for specific purposes

INTRODUCTION

Indeed, the significance of English communication in professional settings has escalated due to globalization. The critical role of English for engineering and science students, as it serves as the primary global language of scientific discourse and facilitates their engagement with professional literature written in English (Pritchard & Nasr, 2004)

In today's job market, proficiency in a foreign language has become indispensable. This requirement places ongoing demands on the education system to equip individuals with the ability to effectively communicate, particularly in English, within professional settings. Consequently, universities are tasked with ensuring that their graduates possess strong foundations in General English to enhance their competitiveness in securing enrollment in foreign language courses.

Within the realm of English for Specific Purposes (ESP) instruction, the concept of evaluating the requirements of learners,

commonly referred to as needs analysis (NA), is regarded as a fundamental aspect of curriculum development. NA is regarded as an essential step in curriculum development with the main aim of identifying “what learners will be required to do with the foreign language in the target situation and how learners might best master the target language during the period of training” (West, 1994). NA was first introduced into ESP field in the 1970s and has been “evolving and refining itself” since then (Flowerdew, 2012). She also points out that NA “is the first stage in ESP course development, followed by curriculum design, material selection, methodology, assessment, and evaluation”. According to Hyland (2006) cited in Flowerdew (2013), NA can be broadly defined as follows:

Needs analysis refers to the techniques for collecting and assessing information relevant to course design; it is the means of establishing the how and what of a course. It

is a continuous process, since we modify our teaching as we come to learn more about our students, and in this way it is actually shades into evaluation— the means of establishing effectiveness of a course. Needs is actually an umbrella term that embraces many aspects, incorporating learners' goals and backgrounds, their language proficiencies, their reasons for taking the course, their teaching and learning preferences, and the situation they will need to communicate in. Needs can include what learners know, don't know or want to know, and can be collected and analyzed in a variety of ways.

Exploring learners' reasons for taking an English language class and their learning preferences can help teachers improve their teaching (Scrivener, 2005). Therefore, conducting NA before designing syllabus can provide useful information for teachers to make decision about what should be included in the course based on learners' specific needs instead of teachers' intuitions or preferences only (Gözüyeşil, 2014).

English for Specific Purposes is trained in college and University. It facilitated the present condition of the students of informatics Engineering who Writing is the process of exploring ideas and thoughts to be put into writing or in the form of words for the reader. Writing is a process of pouring the contents of the reader's mind into words. Writing is a process of exploring ideas or thoughts because as a writer finding or exploring ideas is the most important first step for writing. Writing for someone who is used to writing will tend to find it easier to get ideas as capital in producing a piece of

writing, whereas for beginners it takes longer, of course this is inseparable from the practice or habituation of life lived. Therefore, to produce good writing and so that the ideas conveyed can be understood by readers, it is necessary to practice writing continuously, because the more you write, the better your writing will be.

Furthermore, writing is the process of compiling sentences that were previously in the form of graphic symbols and combinations of letters to then be arranged into a sentence (Oktafiani & Husnussalam, 2021). This can be interpreted that writing is composing or placing graphic symbols and combinations of letters that describe a language into a sentence so that it can be understood and read by others. Besides writing, there are three kinds of other language skills namely Listening, reading, and speaking. Listening, and reading are receptive language skills, while speaking and writing are productive language skills. In addition, there are several important things that must be understood as language learners, some of which greatly affect one's language skills. Needs analysis for university students refers to the process of identifying and assessing the various needs, requirements, and expectations of students in a university setting. This analysis is crucial for universities to design effective programs, services, and support systems that cater to the diverse needs of their student population. It helps universities enhance the overall student experience, improve retention rates, and foster a conducive learning environment.

Conducting a needs analysis for university students is crucial for several reasons. A needs analysis helps institutions, educators, and policymakers gather valuable information about students' requirements, preferences, and challenges. This information can be used to design effective programs, support services, and curricula that cater to students' diverse needs and enhance their overall learning experience. Teaching English for non-English Department Students is challenging. English language teaching (ELT) in higher education is based on the need of each university due to university's autonomy to design their own curriculum, it makes ELT in universities vary and the variation goes wider in the teaching of English for non-English majors.

English language teaching in higher education in Indonesia can be divided into two classifications, that is, as core subject (expertise subject) and as supporting subject. ELT as core subject can be found in English language department, while as supporting subject (general subject) can be found in non-English language Departments. English is taught for the sake of using it in order to be able to communicate within particular professional setting since it is treated as English for special purposes (ESP).

ELT in higher education shows a growing awareness on the significance of English language for non-English majors. This can be seen from the increase of the amount of credits. Many departments establish the minimum 4 credits for English language teaching which is usually divided into two

classes of general English (2 credits) and specific English (2 credits).

The English class are conducted in odd semester (general English) and even semester (English for specific course). The digital Era 5.0 has made English language a necessity for non-English language students not only in academic sphere but also in work competition. That is why many boards of non-English departments consider the importance of equipping students with better English and it is very important for the student non-English Department study and master English by practicing various expression used in daily activities.

METODE

This study was a descriptive qualitative study. The source of data was the engineering students at Widya Dharma Klaten University in the academic year 2023/2024. To clarify, the study specifically focused on learning basic English. The data in this study will be obtained from the participants' work in the form of analyzing the student's ability in the basic English in English course written by the participants. The participants consist of the third and the fifth semester in engineering. In this study, all the learning basic English examined were genuinely authored by the students.

In collecting data, writers need sources to get the available data. The subjects of this study were the third and the fifth semester in engineering at Widya Dharma University Klaten in the academic year 2023/2024. Data were collected through the questionnaire of the students' learning basic English.

1. Data

Data are the facts or details from which information is derived. Individual pieces of data are rarely useful alone. In this study, the subject of the research is the third and the fifth semester in engineering at Widya Dharma University Klaten in the academic year 2023/2024

2. The source of data

The source of the data in the study is subjects from which the data can be obtained. The source of the data in this study is taken from the process of teaching and learning ESP resulting from students and English teachers through observation, interview, and documentation.

3. Research Participants

The research involved 25 research participants. All the participants responded and completed the questionnaire. The questions answered in the questionnaire were about the process of teaching and learning English including English For specific purposes.

Based on the data sources, data collection instruments were obtained from several techniques. The techniques are observation, interview, and documentation. More explanation can be seen as follows.

a. Observation

According to (Hornby, 2005) observation is observing something carefully over a period of time, especially in order to learn. The classroom observation in this study was used to record the activities happened in the classroom during the process of teaching and learning reading.

b. Interview

Interviews are a traditional research method to engage in conversations that explore the area of focus (Burns, 2010). In this study, the writer will conduct interviews with both students and the teacher after applying the use of the poster media in the instructing and learning reading.

c. Test

A test is an examination of an individual's skills or knowledge that consists of tasks that they must complete or questions they must respond to (Hornby, 2005). In this study, tests are used to measure the reading ability of each student. Each cycle uses a test form. Teachers give the test at the end of the teaching and learning process in each cycle.

d. Documentation

Gathering information for documentation involves searching through a variety of sources, including agendas, meeting notes, books, transcripts, newspapers, and magazines (Arikunto, 2013). In conducting this study, the writer will look at relevant documents that were collected from the teacher, such as lesson plans, syllabuses, learning materials, and student grades, in addition to the findings of interviews.

RESULT AND DISCUSSION

The data obtained from the given questionnaire serves as a basis for evaluating the effectiveness of the English for Specific Purposes (ESP) program and identifying areas that need to be improved. Carefully designed and rigorously conducted, the questionnaire produces valuable insights into

the language needs, perceptions, and experiences of engineering students attending the program. Through in-depth analysis of the questionnaire answers, we can see critical gaps in students' English language skills, especially in technical vocabulary and academic writing skills. These findings provide critical feedback for refining the ESP curriculum material and adapting the teaching methods to meet the language-specific needs of engineering students. Based on the data obtained from the questionnaires given to engineering students at Widya Dharma University Klaten, the results of this study highlight the importance of ESP (English for Specific Purposes) in basic English learning for engineering students. There are three major findings with regards to situation analysis that was conducted in this study. First, related to its status in the curriculum, English for Specific Purposes is one of core subjects (Mata kuliah Keahlian/MKK) at Widya Dharma Klaten University. This course is given in the second semesters' students at the program. As an ESP- based course, it serves more specific purposes. Engineering students emphasized the importance of specific language skills in ESP learning, such as the ability to read technical texts, write technical reports, and master specialized vocabulary, which is in line with the findings of (Pritchard & Nasr, 2004) and (Luna Ríos, 2021). Second, ESP for Engineering Students also emphasized the need for content relevant to their engineering field, including engineering terminology, specific industry jargon, and scientific concepts related to engineering, which supports the opinion of

(Arnó-Macià et al., 2020). Professional communication skills are also considered important, covering oral presentations, technical writing and project presentations, in line with the findings of (Kristianti et al., 2023). ESP for Engineering students is design to contribute to the graduates' major competences especially in four areas competences. These competences include the ability to master basic knowledge and education of Engineering, comprehend the vocabularies related with the field in the building construction. In addition, the students should be able to communicate appropriately and effectively in using ESP to provide great achievement. Third, referring to the result of the data source conducted by the researchers, the study shows that.....of the students need ESP for Engineering Students are taught not only in the second semesters, but since they were in the first semesters. Fourth, The Students have learned English since they were in elementary schools' students, However, they still find some difficulties in comprehending the vocabularies related to their field because the nature of Indonesian language of ESP is very different.

Table 1. Attitude Towards Learning ESP

No	Statements	Range of Response			
		Strongly Agree	Agree	Disagree	Strongly Disagree
1	I like Learning English	16	9	-	-
2	I start Learning English Since I was in Elementary School	14	10	1	
3	My English ability is good	4	20	1	-
4	Learning English is easy	10	15	-	-

	and fun				
5	Learning English is difficult	5	16	2	2
6	Learning English is important to students for Engineering Department	15	9	1	
7	Learning English make me more confidence in communicate to others	17	8	-	-
8	Writing is very difficult skill to be master	2	8	13	2
9	Reading is Very Easy for me	9	14	2	
10	Listening is very hard to be achieve	2	8	13	2
11	Speaking is the easiest skill for me	4	14	7	
12	I have good achievement in English	6	18	1	
13	Daily Practice in using English makes me prefect	11	14	-	-
14	I believed I can study ESP well	9	15	-	-
15	ESP is very Important for my Academic Carrier	12	13	-	-

Based on the result of the data above, it is safe to say that the students strongly agree that Learning English make me more confidence in communicate to others (17), I like Learning English (16), Learning English is important to students for Engineering Department (15), I start Learning English Since I was in Elementary School (14)ESP is very Important for my Academic Carrier (12), Daily Practice in using English makes me prefect (11), Learning English is easy and fun

(10), I believed I can study ESP well (9), Reading is Very Easy for me (9), I have good achievement in English (6), Learning English is difficult (5), Speaking is the easiest skill for me (4), My English ability is good (4), Writing is very difficult skill to be master (2).

The data showed that the students strongly agree that *“Learning English make me more confidence in communicate to others”*. Students realize that when they master the English language, they will increase their self-confidence. English as an international language is very needed not only in English education, but also in other fields, such as civil engineering.

The students of Engineering Department got English for Specific Purposes which is one of core subjects (Mata kuliah Keahlian/MKK) at Widya Dharma Klaten University. This course is given in the second semesters’ students at the program. As an ESP- based course, it serves more specific purposes. Engineering students emphasized the importance of specific language skills in ESP learning.

More specific on teaching and learning process in Engineering Department, in the first half of semester, Students should be given a basic material about tenses including how they are applied in daily activities. The students should be encouraged to read the materials for discussion (both from teacher, hand-out and other resources) before they enter the class. The students should present about what they have read and the teacher clarify and add some information about information concerning with the topic.

Compared to previous research, these results reinforce the findings of (Arnó-Macià et al., 2020) on the importance of aligning ESP courses with the specific linguistic and professional needs of engineering students, as well as supporting (Luna Ríos, 2021) opinion on the importance of specialized reading comprehension in ESP for engineering students. In summary, engineering students are highly conscious of the value of English proficiency improvement programs (ESP) for improving their academic and professional English. They want ESP learning to be more contextualized and integrated, integrating language proficiency with pertinent technical knowledge. The study's findings offer insightful information that can help Widya Dharma University Klaten engineers better meet their unique demands through material creation, altered teaching strategies, and improved ESP curriculum. Thus, it is expected that the ESP program can be more effective in improving engineering students' readiness to communicate in English in a global academic and professional environment

CONCLUSION

This study aimed to investigate the English language learning needs and perceptions of engineering students regarding English for Specific Purposes (ESP). The findings revealed that engineering students consider certain English language skills essential for an ESP course, including technical vocabulary, reading comprehension of specialized texts, writing technical reports, and effective oral communication for presentations and professional interactions.

These language skills are necessary for engaging with technical content and communicating effectively in professional environments. Additionally, students have specific preferences for learning and teaching activities in an ESP course, such as practical and interactive methods, project-based learning, collaborative tasks, and real-world applications of language skills. These activities help build confidence and motivation, making learning more engaging and relevant to their future careers.

The students' perceptions of the English courses they had taken indicated general satisfaction, especially when the curriculum included specialized content tailored to their field. However, they also emphasized the need for more targeted support in specific areas like technical writing and oral communication. Feedback from past students suggests that incorporating their insights can help refine course content and teaching methods to better meet their needs. This study underscores the importance of aligning ESP courses with the specific linguistic and professional requirements of engineering students. By focusing on relevant skills, preferred learning activities, and student feedback, ESP programs can significantly enhance the language proficiency and career readiness of engineering graduates.

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