



ENGLISH-BASED LEARNING NEEDS FOR SPECIFIC PURPOSES: AN ANALYSIS

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Abstract

This research aimed to analyze the learning needs of English for students. The research method was used descriptively. Data collection was carried out using an online questionnaire via Google Forms to students to identify the needs and expectations of students in learning English. The number of samples was 50 students with the sampling technique using simple random sampling. The data analysis technique used descriptive quantitative. The results of the research showed that students of the Faculty of Science and Technology need to learn English which focuses on improving the four language skills, namely speaking, writing, listening, and reading. Students also hope to learn more English vocabulary because it is useful for them in the learning process of the subjects related to their major.

Keywords: needs analysis; english-based learning; english specific purposes.

Abstrak

Penelitian bertujuan untuk menganalisis kebutuhan pembelajaran bahasa Inggris bagi mahasiswa. Metode penelitian yang digunakan adalah penelitian deskriptif. Pengumpulan data dilakukan menggunakan kuesioner online melalui Google Forms kepada mahasiswa untuk mengidentifikasi kebutuhan dan harapan mahasiswa dalam pembelajaran bahasa Inggris. Jumlah sampel sebanyak 50 siswa dengan teknik pengambilan sampel menggunakan simple random sampling. Teknik analisis data yang digunakan adalah deskriptif kuantitatif. Hasil penelitian menunjukkan bahwa mahasiswa Fakultas Sains dan Teknologi perlu mempelajari bahasa Inggris yang menitikberatkan pada peningkatan empat keterampilan berbahasa, yaitu berbicara, menulis, menyimak, dan membaca. Mahasiswa juga berharap untuk mempelajari lebih banyak kosakata bahasa Inggris karena berguna dalam proses pembelajaran mata kuliah yang berkaitan dengan jurusan.

Kata Kunci: analisis kebutuhan; pembelajaran berbasis bahasa Inggris; bahasa Inggris tujuan khusus.

INTRODUCTION

English is one of the general subjects that every student at UIN Sultan Syarif Kasim Riau must follow. This course aims to equip students with English language skills for both short and long-term interests. The short-term benefit of learning English is providing students with English language skills that can help and facilitate them in learning specific courses in their department. Meanwhile, the

long-term use of learning English is to support and create quality graduates who can compete in the world of work (Arnó-Macià et al., 2020; Al-Nasser, 2015; Elfers & Stritikus, 2014; Kim & García, 2014; Agirdag, 2013).

English courses taught to students other than English study programs are in the form of English for Specific Purposes (ESP). By the specific or unique terms used in it, the purpose of ESP-based English teaching will lead to mastery of specific English skills in certain fields of science (Farah, 2021; Bunch, 2013; Lee et al., 2013). One of the benefits of EPS is that students can learn to use English directly in the context of their disciplines for academic and non-academic interests (Fitria, 2020). In other words, English at ESP can support students' knowledge of the field of science in their chosen major. Therefore, preparing the syllabus and teaching materials in English courses must also meet the needs of students in the majors being taught (Natsir et al., 2022).

Based on the results of interviews with lecturers supporting English courses, the current problem is that the use of the syllabus in teaching English at UIN Sultan Syarif Kasim Riau is still far from the nature of English for Special Purposes. In other words, the materials listed in the syllabus are still general and not based on the field of science in the students' majors. Of course, the skills and language components contained in are still available and cannot meet students' needs according to the majors they choose (Banditvilai, 2016; Hitt & Tucker, 2016; Hosni, 2014). In addition, there is a non-uniformity in the syllabus for the teachers, causing the students to have different levels of English knowledge.

Based on this problem, it is necessary to analyze the need for the use of English for students according to their study program. In this case, the selected departments are in the Faculty of Science and Technology, the Department of Electrical Engineering, Industrial Engineering, and Informatics Engineering. By researching the analysis of student learning needs, lecturers can obtain references in determining English learning topics in the faculty of science and technology, as well as produce syllabi and teaching materials that genuinely meet student learning needs. The previous research results showed that students need the ability to speak fluently and communicatively to prepare themselves to meet the demands of their



profession in the future (Aflah & Rahmani, 2018). This indicates that the student's desire to improve speaking skills is in line with the job market's needs, which requires the ability to communicate in English well.

Another previous research result showed that students' motivation in learning English was to help improve their academic scores, so that they can speak in English, while their main obstacles were limited vocabulary and did not understand English grammar (Sari, 2019). The analysis of English learning needs concluded that students need English to understand texts and instructions and obtain helpful information for their studies. Based on the two kinds of literature, needs analysis has an essential role in learning because through needs analysis, lecturers, students, syllabi, teaching materials, and learning methods can all be connected harmoniously to improve the quality of learning in the classroom. However, from the two previous research findings, the analysis of the needs of Engineering students in the Faculty of Science and Technology in Indonesia is still relatively limited. Based on the problems that have been described, the research aimed to reveal the urgent needs of students in ESP learning for students.

METHOD

The research was conducted using descriptive methods at the Faculty of Science and Technology UIN Sultan Syarif Kasim Riau. The instrument used to identify students' learning needs uses the Google Form questionnaire. This activity begins with making a questionnaire based on indicators identifying student learning needs. There are 4 indicators of the need for learning English used in the questionnaire, namely: (1) the level of students' skills and abilities in English; (2) the level of importance requires 4 skills/skills in English which include listening, speaking, reading, writing, including grammar and vocabulary; (3) the level of importance of the sub-skills needs of the 4 main skills, namely listening, speaking, reading and writing which are needed in daily communication and in the world of work; and (4) the level of importance of the needs of ESP English learning topics/materials related to their respective fields of knowledge and work.

The distribution of questionnaires filled out by students. The sample size was 50 students from a population of 110 students with the sampling technique used simple random sampling. This was done to make it easier for researchers to analyze the results of the questionnaire and to save time by considering a large number of students in each department at the Faculty of Engineering. Research results were reported in the form of descriptive statistics by displaying data statistics and explanations of the data.

FINDINGS AND DISCUSSION

The distribution of student learning needs questionnaires (need analysis) aimed to obtain in-depth information about students' English learning needs at the Faculty of Science and Technology UIN Sultan Syarif Kasim Riau. The results of the questionnaire analysis of student learning needs used as a guide in preparing the syllabus for English courses based on English for Specific Purposes (ESP) in the Faculty of Science and Technology departments. The preparation of the syllabus based on the results of the analysis of students' learning needs is believed to be a solution to problems in learning, especially English, for students in non-education majors (Asrifan et al., 2020; Simanjuntak, 2020). This is supported that ESP is a learner's need and to answer it must use a syllabus that is in accordance with the needs of the ESP (Alsamadani, 2017; Susandi & Krishnawati, 2016; Rahman, 2015; Chovancová, 2014).

The results of this questionnaire analysis were classified based on language skills, language components, learning methods/strategies, and topics suggested by students as respondents. Based on Table 1, the results of the questionnaire analysis in the Department of Electrical Engineering showed that in the aspect of language skills, all respondents (100%) agree that teaching English aims to improve listening and speaking. Reading skills as many as 92% of respondents agree to improve their writing skills in learning English. This is directly proportional to students' expectations of the content of the language component in the syllabus, which 92% consider that learning grammar is essential. 100% of respondents agree that students can improve their mastery of vocabulary or terminology related to their field of



science by learning English. This is in line with the results of the previous study that vocabulary learning is an essential part of foreign language learning as the meanings of new words are very often emphasized, whether in books or in classrooms (Alqahtani, 2015; Bohlmann et al., 2015; Fernald et al., 2013).

Table 1 Results of Needs Analysis of Electrical Engineering Students

Language Skill	Language Components	Method/Strategy	Suggested Topic
Listening (100%)	Grammar (92%)	Lecture (66%)	Microprocessor
Speaking (100%)	Vocabulary related to majors (100%)	Giving Exercise (80%)	Come lab module
Reading (92%)		Class discussion (75%)	Electromagnetic Field Control
Writing (92%)			Power Electronics Linear system Numerical method C++ Applications Robotic control Write Grammar High voltage Gauss's Law Divergence Terms in Physics

Next aspect, learning methods/strategies, 66% of respondents agree with learning using the lecture method. This indicates that students in the Electrical Engineering Department have expectations that English learning activities in their majors are more dominated by language use exercises/practices rather than giving theory in lectures. 80% of respondents agree that learning English is implemented through the provision of language use exercises/practices. 75% of respondents agreed to carry out English learning activities with the discussion method and the same number decided to carry out individual tasks. 85% of respondents agreed to carry out learning activities in groups and the same percentage agreed that learning activities were done using learning techniques such as songs, films, or games.

The lowest rate is in the role-playing learning method, only 60% of the total respondents agree with using this method. Based on the results of this percentage, it can be concluded that most students in the Electrical Engineering Department expect English learning activities to be carried out using learning media/methods in the form of songs, films, or games, and class assignments can be completed in pairs or groups. It aims to make it easier for students to understand the learning material and can easily carry out the tasks given by the lecturer. In addition, by carrying out group assignments, they can discuss things that are not understood with their friends (Iberahim et al., 2023; Kuśnierek, 2016).

Table 2 Results of Needs Analysis of Industrial Engineering Students

Language Skill	Language Components	Method/Strategy	Suggested Topic
Listening (100%)	Grammar (92%)	Lecture (66%)	Microprocessor
Speaking (100%)	Vocabulary related to majors (100%)	Giving Exercise (80%)	Come lab module
Reading (100%)		Class discussion (75%)	Electromagnetic Field
Writing (100%)			Control Power Electronics Linear system Numerical method

Based on Table 2, the results of the questionnaire analysis of student learning needs of the Industrial Engineering Department showed that in the aspect of language skills, 100% or all respondents agreed that English learning activities were emphasized on improving 4 (four) language skills, namely listening, speaking, reading, and writing, and supported by the improvement of the language component in the form of the introduction of vocabulary or terminology related to industrial engineering. It is suggested that introducing English grammar or grammar can be integrated into the four language skills learning activities. For this component (grammar), 85% of respondents agree to include it in learning activities.

The analysis of the need for learning methods/strategies showed that 90% respondents agreed to learn English using the lecture method and carry out tasks in groups/pairs. 95% of respondents want English learning to be emphasized by



carrying out tasks/exercises that can help improve their English competence and test their understanding of the material taught by the lecturer. 85% of respondents agreed to learn English through songs, movies, games, and role-playing methods. The use of these methods is beneficial for honing English language skills, as well as increasing students' interest and motivation in learning (Kaur & Aziz, 2020; Baranovskaya & Shaforostova, 2018).

One of the topics suggested in the syllabus is material about the introduction of the TOEFL test. Besides being able to be used for the world of work later, the TOEFL test results are also one of the requirements for students of the Industrial Engineering Department to take the thesis exam later. Thus, English courses are expected to be a means for students to recognize the TOEFL test and to know various techniques for answering questions on the TOEFL test.

Table 3 Results of the Analysis of Learning Needs for Informatics Engineering Students

Language Skills	Language Components	Method/Strategy	Suggested Topic
Listening (95%)	Grammar (85%)	Lecture (90%)	Manufacturing Database System
Speaking (90%)	Vocabulary related to majors (100%)	Giving Exercise (95%)	Web Programming
Reading (95%)		Class discussion (67%)	Public Speaking
Writing (90%)		Role play (87%)	Presentation
		Carry out group/pair tasks (90%)	
		Carry out individual tasks (80%)	Articles/Scientific Papers
		Song/movie/game (85%)	

Based on Table 3, the questionnaire on student learning needs at the Department of Informatics showed that 95% of respondents agreed to improve listening and reading skills in English learning activities. This gain is higher than the percentage in speaking and writing skills, with 90% of respondents agreeing. For students of Informatics Engineering, materials and exercises for reading

English texts are instrumental for them to understand the English references that they use in learning activities and in later preparation of their thesis. In addition, respondents in this department also want to improve their mastery of vocabulary related to their major. This is indicated by the percentage of 91% of respondents who agree with learning vocabulary in the syllabus of English courses.

For aspects of learning methods/strategies, 95% or all of the respondents agreed and wanted to learn English through songs, films, and games and carry out tasks individually or in groups/pairs. Other learning activities that are desired are in the form of class discussions, providing exercises that can improve students' English competence, and role-playing. The lowest percentage is in the use of the lecture method, with which only 75% of the total respondents agree. The percentage results indicate that students in the Department of Informatics want English learning to be more emphasized in giving exercises/tasks than lectures on courses (Menggo et al., 2022; Tran et al., 2019). Most of the respondents wanted presentation and public speaking exercises in English, as well as scientific writing exercises on the suggested topics. These materials are necessary because some students of the Informatics Engineering Department actively participate in various English competitions, such as debates, malware, scientific papers, and other competitions.

CONCLUSION

Based on the results of the research, it was found that students learning English need to focus on improving the four language skills, namely speaking, writing, listening, and reading. Students also hope to learn more English vocabulary related to their major as it is useful in the learning process of the subjects in their major. Therefore, needs analysis needs to be done continuously because it is adapted to the needs of learners' ESP.

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