

English For Biology Education Department Students: A Need Analysis on ESP Learners

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ABSTRACT

This research aims to dig deeper into the analysis of Biology department students' needs in English learning. This research also analyzes the differences in English learning needs between female and male students. This research was conducted using the mixed method which involves the fourth semester of Biology Education Department Students as the participants. The analysis of this research is divided into three: Present Situation Analysis, Target Situation Analysis, and Learning Needs. The data for this research was collected using a questionnaire and an interview. The result shows that Biology Department Students need pronunciation as the most important language component and listening skills as the most important language skill. However, male students tend to listening, while female students prefer reading as their learning style.

Keywords: Need Analysis; ESP; English; Biology

INTRODUCTION

English is an essential language to learn currently. Despite not being the most widely spoken language in the world, English is the official language of 53 nations and is spoken by 400 million worldwide (Ilyosovna, 2020). According to Kachru (1985), English is categorized into three circles; the first is the inner circle which is English-speaking countries, the second is the outer circle: the countries where English is a second language, where English plays an important role in people's daily life and is generally considered the official language. The third is the expanding circle: countries where non-native speakers speak English as a foreign language/EFL (Al-Mutairi, 2019). In an EFL context. English is not only taught in English study programs but also in non-English course programs in non-English departments. English is required in non-English departments because it is an international language commonly used in all fields. Aziza (2020) states that English has become increasingly vital in various fields, including engineering, medicine, and education—the last of which is, the most significant area in which English is required. English specializations which are usually taken in certain fields in non-English Departments are referred to as English for Specific Purposes (ESP).

There are some differences between EGP and ESP teaching. EGP teachers find it easier to teach English because in EGP English is taught in general which includes writing, speaking, listening, and reading skills. In contrast, ESP teachers teach English according to the needs of certain fields of science and professions, usually, teachers who teach ESP students will be more extra in teaching because the English taught is usually more specific. The vocabulary used is not as common as English in biology students. Woodrow (2018) states that where EGP and ESP deviate most is in the students, the method they are taught, and the activities that happen in the classroom. So, a needs analysis is needed to find out the needs of participants in learning English in the context of ESP. In non-departmental English language learning, English language learning is different from English in general in that English is studied specifically. Because the goal of ESP learning is to fulfill learners' requirements, which are ever-changing or inconsistent, the need analysis of ESP learners must be conducted constantly (Adnan, 2012). In this case, students need English courses in the material required by English. The aspects of the need analysis in this research include the present situation, target situation, and learning needs. The stakeholders needed by researchers as participants are stated

in the book, among the stakeholders are lecturers, teachers, and students (Woodrow, 2018). In this research, we will examine the English language needs of biology students in non-department English.

There is several previous research on the Need Analysis of English in ESP students. The first research is written by Pranoto and Suprayogi (2020) entitled “A Need Analysis of ESP for Physical Education Students in Indonesia”. The purpose of this study is to create the best English course materials possible for university students studying physical education in Lampung. The results show that students in physical education require ESP across a wide range of subjects. English for professional athletes, referees, and coaches, as well as English for sports media, are the most sought-after topics. Moreover, instructors' viewpoint holds that proficient speaking and writing skills are essential for students to compete on a global scale as professional athletes, coaches, journalists, and other roles. The second research is written by Jubhari et al., (2022) entitled “Needs Analysis in English for Specific Purposes (ESP) for Nursing Students”. The aim of this research is for English course designers and teachers to get clear and comprehensive information about the learning materials required of nursing students, and for students to receive English learning materials that are pertinent to the academic field and careers. The results find that when creating English learning resources, several crucial guidelines should be followed as well as a crucial source of information. The sub-skills in speaking, hearing, reading, and writing that rate highest for each subskill are reading, understanding employment contracts in English at Politeknik Sandi Karsa Makassar Indonesia, and reading drawings and schedules. The third research is written by Hasriani and Nurpahmi (2021) entitled “Need Analysis on English for Biology Education Department Students at UIN Alauddin Makassar”. The purpose of this study is to evaluate the needs of UIN Alauddin Makassar students in the biology education department. According to the preliminary study, the researcher discovered that the Biology Education Department's English course lacks a set syllabus and that the information is not prioritized according to the needs of the students. The findings indicate that biology education department students require more specialized English content and reading comprehension in English than they do other subjects. Based on previous research, several similarities were found related to this research. The three studies that discuss needs analysis show that needs analysis is needed to design materials that are suitable for each field. However, this research delves deeper into the English needs analysis of biology students and the differences in needs between female and male students using mixed methods. To tackle the issues, the following research questions are addressed in this study:

1. What are the English needs of Biology Education Department Students?
2. What are the challenges in English for Biology Education Department Students?

LITERATURE REVIEW

English for Specific Purpose

Woodrow (2018) defines ESP as “An approach to course design and instruction that targets groups of learners with a common goal or purpose in their learning of English”. There is another ESP definition by Hutchinson & Waters (1987, p.19) that ESP is an approach to teaching languages where all choices regarding content and technique are made with the purpose of the students in mind (as cited in Agustina, 2014). It can be concluded that ESP is studied for a person's particular interest in knowing more specific English than what is being studied. ESP is usually used in non-department English. Therefore, ESP is very important to study for an approach to certain goals.

Need Analysis

According to Nunan (1988), Need Analysis is “A set of procedures for specifying the parameters of course of study” (as cited in Agustina, 2014). Richards (1996) states that there are three primary uses for needs analysis. Firstly, it offers a way to get more feedback on the structure, content, and execution of language programs. Secondly, it can be applied to the development of contents, aims, and objectives. Thirdly, it functions as a tool for assessing an already-in-place program (as cited in Agustina, 2014). In conclusion, need analysis is a procedure that researchers need to determine

students' learning needs. This is done to determine abilities, goals, and materials that are appropriate to the learning being carried out.

Needs Analysis in the Biology Department

The Need Analysis in the Biology department is needed and has been widely studied in previous research. Research on students' needs analysis in English language learning is crucial, particularly for the Biology Education Department at UIN Alauddin Makassar, since it may provide them with specific, need-based materials that will help them become better versions of themselves in the future (Hasriani & Nurpahmi, 2021). Based on the theories of ESP and Need Analysis above, Analysis of English Needs in the Biology Department is a procedure for determining learning parameters for English language courses in the field of Biology to find out students' learning needs by analyzing the abilities, objectives, and learning systems needed to achieve the desired target situation. want to achieve in learning English in the Biology Department.

METHOD

Research Design

This research uses a mixed approach and survey method as the research design. This research design was adopted because it was per the research objective, namely to determine the English language needs of Biology students based on their opinions, habits, and styles in learning activities. According to Bhattacharjee (2012), survey research is a research method involving the use of standardized questionnaires or interviews to collect data about people and their preferences, thoughts, and behaviors systematically.

Research Participants

The participants of this research are students in the fourth semester of the Biology Education Department at a private university in Malang. The participants were selected using convenience sampling techniques. They were chosen because, in that semester, they had taken an English course in the second semester and all the material they wanted to study in the fourth semester. For the questionnaire, the total number of participants was 39 students 48 students in total, to be precise from class A (21 students) and class B (18 students). Their age is around 19-21 years, with 2 male students and 37 female students The remaining students could not be contacted for reasons of leave and other reasons. They were selected using a convenience sampling technique. Then, the interview involved 2 Biology students, 1 female (22 years) and 1 male (20 years). It took two days because each participant was interviewed on a different day.

Research Instrument

This research uses a closed-ended questionnaire and semi-structured interview as the research instruments. The students were requested to complete the Need Analysis on English for Biology Questionnaire adapted from Hasriani and Nurpahmi (2021). The total number of questions in the questionnaire is 13, with several points in each. There is a change in the order of questions that are adjusted based on aspects, namely present situation, target situation, and learning needs. The following are aspects of the question:

TABLE 3.3.1 Aspects of the Questions

No	Aspects	Item
1	Present Situation	2
2	Target Situation	9
3	Learning Needs	2
Total		13

The total questions are 13 items which are divided into three aspects, present situation (2 items), target situation (9 items), and learning needs (2 items).

For the interview, the total number of questions is 3 questions. It is self-constructed interview and has three aspects, present situation, skills, and components. Both questionnaire and interview questions use Indonesian and have been validated by the expert at ELT.

Data Collection

At the data collection stage, participants were willing to fill out a research questionnaire and answer the interview questions. For the questionnaire, the first step in collecting data was to ask participants for permission by coming directly to the class. Afterwards, to introduce ourselves and the purpose of the research. Then ask participants to fill out a willingness to fill out a questionnaire. The next step is to distribute the questionnaire link for participants to fill in. The time to complete the questionnaire is around 15 minutes. The total data that was collected took approximately two days because not all participants could fill in on the spot. The interview was conducted via the Zoom application and was recorded. The first step is the same way, we introduce ourselves and the purpose. Then ask for participants' willingness to answer the questions. The last step is the questions and answers process and closing the interview.

Data Analysis

Analysis of the questionnaire data was carried out using the SPSS application statistically. It uses the descriptive analysis method to find the mean score from the data. To find out the final score for all the questions, you need to find the average score for each question. This is done by calculating the total score for all aspects divided by the number of questions or indicators given to the respondent. Then, for the interview data, it was using thematic analysis from Braun and Clarke (2014) that has six steps. The first is to listen to the recording repeatedly until it gets used to the participant's perception about studying English for biology. The second is converting interview recordings into written transcripts. Then read the transcripts several times to achieve an understanding of the data to interpret the participants' experiences in more depth. After that is the coding stage, which is done to identify relevant patterns to emerge themes by classifying similar expressions. The final step was to categorize the themes into certain aspects of participants' use of Grammarly in writing.

FINDING AND DISCUSSION

Quantitative Data

Present Situation Analysis: Level Proficiency

The analysis of the present situation shows the level of English proficiency of the respondents. The findings identified that the lowest average score of students on speaking skills was included in "fair" category. Meanwhile, the highest average score for language skills, namely reading, is in the "good" category. Other students' English skills are in the "fair" categories are vocabulary, listening and, writing. The data can be seen in the following table:

TABLE 2. Level Proficiency

No	Level Proficiency	Average
1	Listening ability level	3.10
2	Speaking ability level	2.97
3	Writing ability level	3.33
4	Reading ability level	3.41
5	Vocabulary ability level	3.08
1 – 1.75 = Poor; 1.76 – 2.50 = Fair; 2.51 – 3.50 = Good; 3.51 – 4.00 = Excellent;		

Learning Problem

Based on the survey, the second question about present situation asked about the problem of Biology Education students in learning English. The following is a table of the data results:

TABLE 3. Learning Problem

No	Learning Problem	Average
1	Lack of motivation	2.74
2	Lack of learning English strategies	2.82
3	Commit spelling errors	3.05
4	Inadequate mastery of grammar	3.03
5	Rely much on L1 structure	3.03
1 – 1.75 = Hardly ever; 1.76 – 2.50 = Seldom; 2.51 – 3.50 = Often; 3.51 – 4.00 = Always;		

From the data above, it shows that all learning problems are in the “often” category. Specifically, the problem that is the biggest obstacle for students in learning English is spelling errors. Then followed by inadequate mastery of grammar, rely a lot on L1 (first language) structure, and finally the lowest score is lack of motivation.

Target Situation Analysis: *Purpose*

The following table shows the findings of the questions about the participants’ purpose in learning English.

TABLE 3. Purpose

No	Purpose	Average
1	To succeed in studying	3.72
2	To succeed in career	3.59
3	For personal needs	3.49
4	To visit other countries	3.54
5	To get a scholarship	3.62
1 – 1.75 = Not Important; 1.76 – 2.50 = Less Important; 2.51 – 3.50 = Important; 3.51 – 4.00 = Very Important;		

The table shows that almost all answers are considered “very important” in the table. More specifically, the highest score is succeeded in studying, then sequentially followed by getting a scholarship, success in career, and visiting other countries. Except “for personal needs” is included in the “important” category which is the lowest score.

Language Component

TABLE 4. Language Component

No	Language Component	Average
1	Vocabulary	3.54
2	Pronunciation	3.59
3	Grammar	3.49
4	Spelling	3.56
1 – 1.75 = Not Important; 1.76 – 2.50 = Less Important; 2.51 – 3.50 = Important; 3.51 – 4.00 = Very Important;		

Table 4. shows the results of the language component that is considered important by students. From the participants’ responses about the language component, the lowest score is grammar included in the “important” category. Then, the highest score is pronunciation which includes in the “very important” category. The second and third highest scores are spelling and vocabulary.

Topics

The next question is about topics that considered important in learning English by students.

TABLE 5. Topics

No	Topics	Average
1	The Chemistry of Life	3.31
2	An Introduction to Metabolism	3.51
3	Biotechnology	3.59
4	Mechanisms of Evolution	3.38
5	Classification of Living things	3.51
6	Reproduction in Plants	3.46
7	Thermoregulation	3.46
8	Ecology	3.56
1 – 1.75 = Not Important; 1.76 – 2.50 = Less Important; 2.51 – 3.50 = Important; 3.51 – 4.00 = Very Important;		

Biotechnology is considered a very important topic to be learned in English. Then, in the same category are Ecology, Classification of Living Things, and An Introduction to Metabolism. The lowest score is the topic of The Chemistry of Life which is included in the “important” category. Other topics in the same category are Reproduction in Plants, Thermoregulation, and Mechanisms of Evolution.

Language Skills That Are Often Used**TABLE 6. Language Skills That Are Often Used**

No	Skill	Average
1	Speaking	2.97
2	Listening	3.23
3	Writing	2.95
4	Reading	3.05
1 – 1.75 = Hardly ever; 1.76 – 2.50 = Seldom; 2.51 – 3.50 = Often; 3.51 – 4.00 = Always;		

Table 6. describes the results of the question about language skills that are often used by students in learning English. All the answers are included in the “often” category. With the highest to lowest scores in succession are listening, reading, speaking, then writing.

Writing Aspects**TABLE 7. Writing Aspects**

No	Writing Aspects	Average
1	Write grammatically	3.33
2	Organize paragraphs well	3.38
3	Write cohesively and coherently	3.46
4	Free writing	3.23
1 – 1.75 = Not Important; 1.76 – 2.50 = Less Important; 2.51 – 3.50 = Important; 3.51 – 4.00 = Very Important;		

From the table, it can be concluded that all of the answer is included in the “important” category. The data elucidates that the most important writing aspect by the students in learning English is write cohesively and coherently. Then, respectively, organize paragraphs well, write grammatically, and free writing.

Speaking Aspects

The table below explains about the speaking aspects that considered important by students in learning English.

TABLE 8. Speaking Aspects

No	Speaking Aspects	Average
1	Speak according to correct grammar	3.54
2	Speak fluently	3.59
3	Speak according to context	3.69
4	Speak with correct pronunciation	3.62
5	Speak according to context fluently and with correct pronunciation	3.54
1 – 1.75 = Not Important; 1.76 – 2.50 = Less Important; 2.51 – 3.50 = Important; 3.51 – 4.00 = Very Important;		

It can be seen in the table that all answers are included in the “very important” category. The highest score is speaking according to context and the lowest score is speak according to context fluently and with correct pronunciation. Another answer with the same category is speak fluently, speak according to correct grammar, and speak according to context fluently and with correct pronunciation.

Listening Aspects

TABLE 9. Listening Aspects

No	Listening Aspects	Average
1	Can understand listening material	3.44
2	Can identify specific, detailed main ideas of information from various types of listening material correctly.	3.59
3	Can understand listening material from easy material	3.54
4	Can understand listening material from easy to difficult material	3.46
1 – 1.75 = Not Important; 1.76 – 2.50 = Less Important; 2.51 – 3.50 = Important; 3.51 – 4.00 = Very Important;		

The table above describes the listening aspects that are considered important by students in learning English. It shows that the highest score answer is can identify specific, detailed main ideas of information from various types of listening material correctly which is included in the “very important” category. In the same category, can understand listening material from easy material is the second highest score answer. The lowest score answer is can understand listening material which is included in the “important” category. Then, another answer in the same category is can understand listening material from easy to difficult material.

Reading Aspects

TABLE 10. Reading Aspects

No	Reading Aspects	Average
1	Can understand reading material well	3.67
2	Can understand specific reading material	3.51
3	Can understand reading material in detail	3.51
4	Can understand reading material well, specifically, in detail, and understand the main ideas of any reading material	3.54
1 – 1.75 = Not Important; 1.76 – 2.50 = Less Important;		

2.51 – 3.50 = Important; 3.51 – 4.00 = Very Important;

Table 10. shows the results of the question about reading aspects that considered important by students in learning English. All the aspects are included in the “very important category. Can understand reading material well is the most important aspect by students which is included in the “very important category”. Then, respectively, can understand reading material well, specifically, in detail, and understand the main ideas of any reading material, then can understand specific reading materials, and can understand reading material in detail is in the same score.

Language skills

TABLE 11. Language skills

No	Skill	level
1	Listening	3.46
2	Speaking	3.56
3	Writing	3.33
4	Reading	3.51
5	Vocabulary	3.28
1 – 1.75 = Not Important; 1.76 – 2.50 = Less Important; 2.51 – 3.50 = Important; 3.51 – 4.00 = Very Important;		

The table above shows the results to answer the question about the language skills that are considered important by students in learning English. The most important skill in students’ perception in learning English is speaking that included in the “very important category. Another skill in the same category is reading the second highest score answer. The lowest score skill is writing included in the “important category”. Then, listening was getting in the same category.

Leaning Needs: Learning Preferences

TABLE 12. Learning Preferences

No	Learning preferences	Average
1	Learning independently	3.44
2	Learn in Pairs	3.31
3	Study in Small Groups	3.28
4	Study in Large Groups	3.15
5	Learning Through Reading While Taking Notes	3.41
6	Learning through role playing	3.03
1 – 1.75 = Not Important; 1.76 – 2.50 = Less Important; 2.51 – 3.50 = Important; 3.51 – 4.00 = Very Important;		

Analysis of the learning needs shows the learning preferences of the Biology Education Department students in learning English. From the table above, it can be concluded that all of the answers are included in the “important” category. In order from highest to lowest answer scores are: learning independently, learning through reading while taking notes, learning in pairs, study in small groups, study in large groups, and the last is learning through role playing.

Learning Style

TABLE 13. Learning Style

No	Learning Style	Average
1	Conversation	3.44
2	Reading	3.44
3	Writing	3.44
4	Listening	3.49
5	Presentation	3.28

1 – 1.75 = Not Important; 1.76 – 2.50 = Less Important;
2.51 – 3.50 = Important; 3.51 – 4.00 = Very Important;

The last question is about the learning style that is considered important by the participants in learning English. From the table above, it can be concluded that all of the answers are included in the “important” category. The most important learning style of participants is listening. Then, there are conversation, reading, and writing in the same score. Furthermore, the lowest score answer is presentation.

Qualitative Data

Present Situation

Several themes emerged after data analysis regarding the present situation of the participants, including level of proficiency of the participants. It is shared in the interview with the participants:

“I think my English skill it's still lacking because there are words that can already be understood. There are words that are still unfamiliar and cannot be translated by myself like they are still very foreign. I'm so lacking in vocabulary. I'm also lacking in listening skill because it is difficult to understanding the pronunciation like it's not clear enough. And about writing, in the past I used to write like English short stories like that, but the vocabulary is just unfamiliar, not to the point of being complicated. I think I'm less in writing, but not too much less. For reading, I personally still lack because the minimum vocabulary. (P1, male)

“It's pretty good in my opinion. Maybe there is one skill whose level is quite better than the others, for example speaking writing reading is one of them. I think there is one, everything is just normal.” (P2, female)

Besides the level proficiency, there is also the obstacle of the participants in learning English. They said that:

“I get learning problem sometimes when I get a task but wrong in the task of the relationship words, the grammar errors and something like that.” (P1, male)

“It's more common to misspell the grammar. It's like there's something wrong and I'm afraid to say so wrong too.” (P2, female)

On the present situation analysis, male students have a low level of English proficiency, this is due to a lack of vocabulary which influences their lack of listening, speaking, reading and writing skills. Meanwhile, the proficiency level of female students is quite good and normal. Regarding obstacles in learning English, male students tend to experience problems with grammatical errors such as mistakes in relationship words. It's not much different for female students, the learning problem lies in grammar errors too.

Skills

In the skill analysis, data analysis shows the skills that are most often used by participants in learning English. The participants depict it:

“I use some of the skill in the class rarely, but the most is writing skill and then there are also lecturers who explain using English but interspersed with Indonesian too. So everything is rarely used except in the tok class. If outside the class it is never used. Outside of class, I usually just listen to songs.” (P1, male)

“I used to read, maybe it's because I like to read. It's because I really like to read or like to read in English or something.” (P2, female)

Besides, the data analysis also shows the purpose of the participants. Both participants narrated that:

"The presents goal is to succed in studying, of course English is also important, so like it or not, sometimes I have to have the awareness to learn. Demands too but there is a willingness too." (P1, male)

"It's fifty-fifty, because on average, the lectures use English when giving material, so whether you want it or not, you have to learn it. Maybe there is also a purpose like going abroad or something." (P2, female)

On the skills analysis, male students more often use listening skills in daily life, and rarely use other skills both in class and outside class. Meanwhile, female students use reading skills more often, because they prefer reading activities. For the purpose of learning English, male and female students have the same goals, namely for study reasons and also their own willingness.

Components

The last question is about components, data analysis describes the most important English skills by the participants' perception. They shared that:

"In my opinion, speaking is the most important thing. Same with the vocabulary too the same pronunciation is more about the pronunciation." (P1, male)

"If my vocabulary is correct, then it's fluent, the problem is if, for example, it's fluent but not correct, it's a shame if people know that it doesn't mean that. So, vocabulary is very important." (P2, female)

Besides, data analysis also shows the topics in the Biology Department that are considered most important in learning English by the participants' perception. They depict it:

"If I look from the past, there was an English course in biology from the lecturer told to look for journals and then we English journals, and then we were told what yes understand the contents of the journal were about like plant reproduction yes. As far as I know, it's more about plant diversity." (P1, male)

"If in my area everyone uses English, yes, maybe the most important thing is that it is cultivated of the plants because the sources are usually from outside and there are many Latin names like that." (P2, female)

The participants also shared their learning preferences and styles when learning English. They narrated that:

"For me, I usually write down by myself while listening to the song usually. It is calmer, more focused, because sometimes in class, there is sometimes an atmosphere that is not conducive that makes it difficult to focus. So it's more on my own and I just keep writing and maybe reading too." (P1, male)

"For me, I prefer to be alone and keep reading. The thing is, I don't like crowds, bro. First of all, it's better to be alone when studying. If it's crowded, it's easy to get distracted, you know, with other things. So, you don't focus so much if the person reading prefers to read." (P2, female)

In the components analysis, data analysis shows that male students tend to think that speaking skill is the most important skill in learning English. Meanwhile, female students think that vocabulary skills are the most important English language skills. The topic in the Biology Department that is most important to study in English according to both male and female students is about the plants. Then, for the learning preferences and style, male students tend to study independently by listening to music and writing. Meanwhile, female students prefer independent study by reading.

There are three similarities in findings after quantitative and qualitative data analysis. The first. Both quantitative and qualitative data show that the most important goal of Biology students in studying English is to succeed in their studies. The second similarity, namely the findings, both show that the component that participants think is important in learning English is pronunciation. Thirdly, participants' learning preferences tend to be more towards learning independently.

Following are the differences in results found after data analysis between quantitative and qualitative data. Firstly, the quantitative data shows that the average proficiency level of biology students has a high level of reading skills. Meanwhile, in qualitative data, it only applies more to female students. Second, in quantitative data, the learning problem that is most often experienced is spelling errors. Meanwhile, qualitative data shows that the obstacles that participants often experience in learning are grammar errors. Thirdly, in quantitative data, the topic in the Biology Department that they consider important in learning English is biotechnology, while qualitative data shows cultivation of plants as the most important topic. Then, another difference is in the language skill that is considered important, namely speaking in the quantitative data, whereas this is only stated by male participants in the qualitative data. Lastly, the learning style of quantitative participants tends to be more listening, while the qualitative data shows that only male participants are like that.

CONCLUSION

In short, present situation analysis shows that the level of participants' English proficiency is weak in speaking. Then, the obstacles that faced by students in learning English is spelling errors. The analysis of the target situation shows that the participants purpose in learning English is to succeed in studying. In learning component, participants need pronunciation as the most important language component. Then, the topic that considers as the most necessary topic in learning English is Biotechnology. Besides, the most language skill often used in learning process is listening skill. In writing aspects, the aspect that students' need is write cohesively and coherently, in speaking aspects students' need able to speak according to context, then in listening aspects students need able to can identify specific, detailed main ideas of information from various types of listening material correctly, and the last aspects, in reading students' need able to can understand reading material well. While, the students need speaking as the most important skill in learning English. For the learning needs, the analysis shows that students need learning independently as learning preferences and learning while listening as learning style.

The data also shows several similarities and differences between male and female Biology Department Students in learning English. The similarity is that their goal in learning English is to be successful in studying, their obstacle is grammar errors, and their learning preference is to study alone. The difference is that the learning style of male students tends to be listening, while female students tend to be reading.

REFERENCES

- Adnan, S. (2012). *Needs Analysis: A Process to Improve the Learning of ESP* at the College of Administration-The Department of Administration and Economy-University of Basra.
- Al-Mutairi, M. (2019). Kachru's Three Concentric Circles Model of English Language: An Overview of Criticism & the Place of Kuwait in it. *English Language Teaching*, 13(1), 85. <https://doi.org/10.5539/elt.v13n1p85>
- Aziza, N. (2020). *The Importance of English Language*. www.researchparks.org
- Braun, V., & Clarke, V. (2014). What can "thematic analysis" offer health and wellbeing researchers? In *International Journal of Qualitative Studies on Health and Well-being* (Vol. 9). Co-Action Publishing. <https://doi.org/10.3402/qhw.v9.26152>
- Florida, S., & Bhattacharjee, A. (n.d.). *Social Science Research: Principles, Methods, and Practices*. https://digitalcommons.usf.edu/oa_textbooks/3
- Jubhari, Y. (2022). *Needs Analysis in English for Specific Purposes (ESP) for Nursing Students*. 2(1), 80–86. <https://jurnal-eureka.com/index.php/edulecj>

- Nurpahmi, S. (2021). *NEED ANALYSIS ON ENGLISH FOR BIOLOGY EDUCATION DEPARTMENT STUDENTS AT UIN ALAUDDIN MAKASSAR*. 1(2).
- Pranoto, B. E., & Suprayogi, S. (2020). A Need Analysis of ESP for Physical Education Students in Indonesia. *Premise: Journal of English Education*, 9(1), 94. <https://doi.org/10.24127/pj.v9i1.2274>
- Titik Agustina. (2014). ENGLISH FOR SPECIFIC PURPOSES (ESP): AN APPROACH OF ENGLISH TEACHING FOR NON-ENGLISH DEPARTMENT STUDENTS. *Beta Journal*, 7(2), 37–63. <https://doi.org/10.20414/betajtm.v9i2.7>
- Woodrow (2017). *Introducing Course Design in English for Specific Purposes*. Routledge: Taylor & Francis Group. <https://doi.org/10.4324/9781315143279>