

NEED ANALYSIS ON ENGLISH FOR BIOLOGY EDUCATION DEPARTMENT STUDENTS AT UIN ALAUDDIN MAKASSAR

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ABSTRACT

This research is aimed to analyze the need of Biology Education Department Students at UIN Alauddin Makassar. Based on the preliminary study, the researcher found that English subject on Biology Education does not have a specific syllabus and also the material is not through the need analysis based on priorities needed by students of Biology Education Department. The research design used in this study was survey method. This need analysis divided into three phase that are: Target Situation Analysis, Present Situation Analysis, and Learning Needs. The procedures included analyzing need by spreading questionnaire and conduct an interview. The result of this research shows that students of Biology Education Department need more specific English material and need English reading skills more than other skills.

Keywords: Need Analysis, English Material

INTRODUCTION

English is presently recognized as the only foreign language included as a compulsory subject in schools which is taught for eight or nine years from primary schools (from grade 4 or 5) to universities (Kaharuddin 2018:3). At the university level, there are several departments directly related to English, for example English education majors and English literature majors. Lowenberg (1991: 127-138) in Kaharuddin (2018: 11) described some factors that might contribute to the problem of the low level of English proficiency faced by students learning English in Indonesia. The first factor is that the problem lies within the curriculum and syllabus. The second one is the Indonesian classroom situation which is still generally overcrowded and noisy. The third factor is that there are many teachers who are still lacking in proficiency in English or still need more training in language pedagogy. Due to the first factor, it is important to consider the material before the class starts base on their need, to realize the effectiveness between their need and skill. It is important to conduct research based on students need analysis in learning English, especially for Biology Education Department UIN Alauddin Makassar because of providing material based on need analysis explicitly helping them to improve their self in the future. Hence material that prepared and presented will be learned is in accordance with their interest. So that need analysis require to conduct.

METHOD

The method that used in this research was survey method. According to Gay and Mills (2016:209) survey research involves collecting data to test hypothesis or to answer the question about people's opinions on some problem or issue.

Research Subject

This research took place at Biology Education Department at UIN Alauddin Makassar. It involved several research participants. They were selected based on Purposive sampling in order to conduct data collection. To be more detail:

- a. Students (Target Group): Students in 4th semester of Biology Education Department will be the subject.
- b. Lecturers (Audience Group): 2 lecturers of Biology Education Department.
- c. Graduates

Instrument

The instruments that used by researchers are as follows:

- a. Questionnaires – an inexpensive way to gather from a potentially large number of respondents (they also allow for a statistical analysis of the result).
- b. Interviews guideline – allow to gather more in-depth information from a specific group of candidates. The researcher will use semi-structured interviews.

Procedure

In this research data took in two forms, the questionnaire that supported by interview data. In this research data collection used:

- a. Giving Questionnaire; Questionnaire in this study aims to get an overview of the needs of English biology education students.
- b. Giving Interview; According to Mulyadi (2019) interview is a question-and-answer process in research that takes place orally in which two or more people face to face listen directly to information or information with the aim of obtaining perceptions, attitudes and mindset of the interviewer. At this stage, interviews were conducted with English lecturers.
- c. Recording; from the interview, the researcher took the documentation in form of a recording the results of interview.
- d. Analyzing and describing the result of questionnaire and answer of the interview.
- e. Calculating percentage of answers in the questionnaire. It is purposed to know percentage of the students' answers in the questionnaire. The result of statistical analysis shows dominance answer the questionnaire.

Analysis Technique

Data analysis that used in this study were questionnaire data analysis and interview data analysis.

- a. Questionnaire Data Analysis. To find out the final value of various questions, it can be conducted by finding the average value of each question by calculating the total value of all aspects divided by the number of questions or indicators given to respondents.
- b. Interview Data Analysis. Researcher will use thematic analysis. According to Richard (1998) thematic analysis is a process to be used with qualitative data information. Thematic analysis is a process for encoding qualitative information.

Thematic analysis is a method by identifying, analyzing and reporting themes or patterns contained in the data. There are two main steps that must be done in thematic analysis.

1. Reading and Giving Meanings from Interview Transcript Data

In understanding the contents of the transcript, researchers need to pay attention to patterns or ideas that are repeatedly conveyed by informants. In this paper, researchers focus on interview data that has been obtained through interviews (interviews). The initial step in this process is the researcher conducting interview transcriptions.

2. Coding

Coding is the process of reviewing and testing existing raw data by labeling (giving labels) in the form of words, phrases or sentences. There are two stages in this coding step, namely:

- a. Initial coding (initial coding) or open coding (open coding).
 Initial coding is defined as giving meaning or labels in the form of words or phrases in accordance with existing data (for example in transcription data).
- b. Axial coding (axial coding).
 Axial coding is defined as a step or a continuation stage of open coding by creating themes or categories based on words or phrases that result from open coding.

FINDINGS AND DISCUSSION

Target Situation Analysis

Purpose

Based on the survey conducted, the first question asked about the purpose of Biology Education students learning English. The following is a data table showing the results of the survey data:

Table 1. Purpose

No.	Purpose	Students	Graduate	Lecturer	Average
1.	Complete the study	3.40	3.1	4	3.5
2.	Future career	3.77	3.3	4	3.69
3.	Develop self-quality	3.34	3	3.5	3.59
4.	Visit other countries	3.63	3.2	4	3.61
5.	To get a scholarship	3.79	3.3	4	3.69

1 – 1.75 = not important; 1.76 – 2.50 = less important;
2.51 – 3.50 = important; 3.51 – 4.00 = very important;

From the students' response about the purposes of learning English, the highest score was getting a scholarship with a very important category, then with the same category, namely the future career, while from the average overall respondent the highest answers were for future careers and to get a scholarship with the same position in the "very important" category. The second highest answer is to visit other countries include in important category. The lowest answer is to develop self-quality in important category.

Language Component

The table below explains the results of the questions regarding what language components are important according to respondents.

Table 2. Language Component

No.	Language Component	Students	Graduate	Lecturer	Average
1.	Listening	3.65	3	4	3.55
2.	Reading	3.71	4	4	3.90
3.	Vocabulary	3.61	3.3	4	3.63
4.	Pronunciation	3.67	3.3	4	3.65
5.	Grammar	3.38	3.1	4	3.49
6.	Spelling	3.46	3	4	3.48

**1 – 1.75 = not important; 1.76 – 2.50 = less important;
2.51 – 3.50 = important; 3.51 – 4.00 = very important;**

In connection with the table above, most answers from students' perception to questions about language components that are considered very important in learning English was reading. This shows that the language component that is needed by biology education students was reading. In the second place was listening in the same category namely very important, then the language component with the lowest score was grammar with the Important category. This result in line with all response of respondents reading got the highest score.

Topics

The next question is about any topic or material that is important in learning English for Biology Education Department students.

Table 3. Topics

No.	Topics	Students	Graduate	Lecturer	Average
1.	Cells	3.63	3.3	4	3.64
2.	Plant cells	3.51	3.3	4	3.60
3.	Animal cells	3.55	3.3	4	3.61
4.	Structure of a Cell	3.59	3.2	4	3.59
5.	Evolution	3.30	3.2	4	3.5
6.	Circulation of Blood	3.44	3.3	4	3.58
7.	Molecular	3.32	3.2	4	3.50

8.	Microorganism	3.61	3.3	4	3.63
9.	Genetics	3.46	3.3	4	3.58
10.	Ecology	3.40	3.3	4	3.56
1 – 1.75 = not important; 1.76 – 2.50 = less important; 2.51 – 3.50 = important; 3.51 – 4.00 = very important;					

Cells is considered as the very important topics to be learn it can be seen from the category which in very important. Then in the same category there are animal cells, plant cells, structure of cells, microorganism, circulation of blood. In the important category there are evolution and molecular.

The topics mentioned above were chosen based on the suitability of the English skills that will be used by students of the Biology Education Department, this is as said by the following respondents:

The exercises given are oriented towards biological materials including: Cell and Molecular Biology, Physiology, Genetics, Structure and Development, Biosystematics and Evolution and Ecology. So reading, structure, speaking, listening are all based on these biology topics. (Respondent 2: 30/12/2020).

Language Skills That Are Most Often Used

Table 4. Language skills that are most often used

No.	Language Skill	Students	Graduate	Lecturer	Average
1.	Speaking	2.77	3	3.5	3.09
2.	Listening	3.26	2.8	3.5	3.09
3.	Writing	2.69	3.3	3.5	3.16
4.	Reading	3.26	3.5	4	3.58
1 – 1.75 = Hardly ever; 1.76 – 2.50 = Seldom; 2.51 – 3.50 = Often; 3.51 – 4.00 = Always;					

Table 6. describes shows the language skills most often used by students, namely reading and listening in often category, then the students chose speaking in the third position and writing with the lowest score of 2.69. The table shows that generally, respondents used skill reading more often in learning English as evidenced by a score of 3.81, that score include in “always” category.

Learning in the Biology Education Department is based on scientific literacy, hence reading skills are a skill that is needed by students in this department, this reason is strengthened by the statement of one of the respondents, mentioned that:

Yes, very important. These lectures are mostly readings from literature or information sources in English. Lecture material includes increasing literacy in understanding English scientific texts. (Respondent 2: 30/12/2020).

Writing Aspect

Table 5. Writing Aspect

No.	Writing Aspect	Students	Graduate	Lecturer	Average
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1.	Can write with the correct grammar structure	3.36	3.7	4	3.68
2.	Can organize paragraph appropriately	3.34	3.6	4	3.64
3.	Can write with cohesive and coherent paragraphs	3.34	3	4	3.44
4.	Free writing	3.18	3.1	3.5	3.26
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 above the question regarding important aspects of writing, according to all the respondents can write with the correct grammar structure was in very important category. Likewise with the choice of students who chose reading skills as the most frequently used skill in learning English. This shows that both students and lecturers and experts consider that the aspect of can write with the correct grammar structure is a very important aspect.

Speaking Aspect

Table 6. Speaking Aspect

No.	Speaking Aspect	Students	Graduate	Lecturer	Average
1.	Able to speak English with the correct grammar structure	3.53	3.4	3.5	3.47
2.	Able to speak fluently	3.36	3.3	3.5	3.38
3.	Able to speak according to context	3.36	3.5	4	3.62
4.	Able to speak with the correct pronunciation	3.71	3.7	4	3.80
5.	Able to speak fluently with the correct pronunciation	3.63	3.7	3.5	3.61
1 – 1.75 = not important; 1.76 – 2.50 = less important; 2.51 – 3.50 = important; 3.51 – 4.00 = very important;					

To answer the question regarding the important speaking aspect in learning English for Biology students, the table above shows that overall, the respondents answered that the speaking aspect which is considered the most important aspect was able to speak with the correct pronunciation. However, all the aspects remain in the "important" category. From the student's response, the aspect of speaking skill that has the highest score is able to speak with the correct pronunciation and is included in the very important category, with the same category there were able to speak according to the context, and able to speak fluently with the correct pronunciation. Last able to speak English with the correct grammar structure and able to speak fluently was in important category.

Speaking with the correct pronunciation is one of the obstacles that students experience in English, the data above proves that speaking with correct pronunciation is a necessity for Biology Education Department students. Through interviews that have been conducted by researchers with questions about what skills do you want to learn more about, the respondent's answers obtained are related to the results of the data above, the respondents answered:

Speaking, because in my opinion the pronunciation of words in English is very difficult and I have bad pronunciation

Listening Aspects

Table 7. Listening Aspect

No.	Listening Aspect	Students	Graduate	Lecturer	Average
1.	Able to understand listening material based on any context	3.71	3.5	4	3.76
2.	Able to identify correctly and specific main ideas of information from various types of listening material.	3.57	3.6	4	3.72
3.	Able to understand listening from easy material	3.59	3.7	4	3.73
4.	Able to understand listening material from easy or difficult material.	3.55	3.5	4	3.68
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 explains the important aspects of listening. From the students' point of view, the aspect that in very important category was able to understand listening material based on any context, while according to lecturer and expert all the aspects are in very important category. From the calculation of all the respondents', the aspect with the highest position was able to understand listening from easy material.

Reading Aspect

Table 8. Reading Aspect

No.	Reading Aspect	Students	Graduate	Lecturer	Average
1.	Able to understand reading material	3.75	3.6	4	3.78
2.	Able to understand specific reading material	3.48	3.7	4	3.72
3.	Able to understand reading material in detail	3.55	3.5	3.5	3.51
4.	Able to understand reading material, specifically, in detail, and understand the main ideas of any reading material.	3.63	3.8	4	3.81
1 – 1.75 = not important; 1.76 – 2.50 = less important; 2.51 – 3.50 = important; 3.51 – 4.00 = very important;					

The data elucidates that from students' perception able to understand reading material was the most important of reading aspect with very important aspect while the in the second place was able to understand reading material, specifically, in detail, and understand the main ideas of any reading material in the very important category. Whereas for the overall choice of respondents, both students, graduates and lecturers, the most choices were able to understand reading material, specifically, in

detail, and understand the main ideas of any reading material in very important category and the least choice was able to understand reading material in detail which in important category.

Language Skills

Table 9. Language Skill

No.	Language Skill	Students	Graduate	Lecturer	Average
1.	Listening	3.73	3.7	4	3.81
2.	Speaking	3.71	4	4	3.90
3.	Writing	3.46	3.6	4	3.68
4.	Reading	3.63	3.8	4	3.81
5.	Vocabulary	3.55	3.9	4	3.81
6.	Translation	3.51	3.7	3.5	3.57
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 above, it can be seen that the most answers to the question about skills that are considered important in learning English in all the respondents' response were listening skills which is in a very important category, the second order was speaking and then reading with the same category. The importance of speaking skills is also supported by a statement from one of the respondents who was interviewed by the researcher, who said:

I think all skills are important because the source of information for learning Biology Education students comes from international journals, but if I have to choose from the four skills I choose reading and speaking (Respondent 1: 30/11/2020).

Present Situation Analysis

Level Proficiency

Analysis of the present situation that identifies the respondent's level of English proficiency. The results of the identification were the students' average score on listening skills which was included in the fair category. The highest average score for language skills, namely reading is in the good category and the lowest average score is speaking. The rest of the students' English skills are in the fair category, namely vocabulary and writing. This data can be seen from the following table:

Table 10. Level Ability

No.	Level Ability	Average
1.	Listening	2.22
2.	Speaking	2.16
3.	Writing	2.38
4.	Reading	2.53
5.	Vocabulary	2.30
1 – 1.75 = Poor; 1.76 – 2.50 = Fair;		

2.51 – 3.50 = Good; 3.51 – 4.00 = Excellent;

From the data above, four of the five skills are in the fair category, this shows that the basic English language skills in the Biology Education Department are lacking. All these reasons were proved by statement:

During the pandemic the problem with students is the same. The learning method is limited. Most of students' difficulty was on basic English.

Learning Problem

Table 11. Learning Problem

No.	Learning Problems	Students	Graduate	Lecturer	Average
1.	Lack of motivation	3.77	4	3.5	3.75
2.	Lack of learning English strategies	3.53	3.4	3	3.31
3.	Commit spelling errors	3.51	3.4	4	3.63
4.	Inadequate mastery of grammar	3.48	3.4	4	3.62
5.	Rely much on L1 structure	3.71	3.1	4	3.60

1 – 1.75 = Hardly ever; 1.76 – 2.50 = Seldom;
2.51 – 3.50 = Often; 3.51 – 4.00 = Always;

In the analysis of present situation, identification of students 'language needs involves students' learning problems, table 13. shows the responses of students, graduates, lecturers, and experts about this. Learning problems included in the category always were lack of motivation, much rely on L1 structure, then inadequate mastery of grammar and commit spelling errors inadequate mastery of grammar. From the student's point of view, learning problems included in the category always were lack of motivation, rely on L1 structure, lack of learning English strategies, commit spelling errors. While inadequate mastery of grammar was in the category often.

From the data above, it can be seen that the lack of motivation has the highest score with the category often, this is supported by the following statement:

In particular during a pandemic where online learning, interaction with lecturers based on their individual needs is very limited. They need to be motivated one by one, seen by their work, directly assessed. In a face-to-face situation maybe it can be done. But online, there isn't enough time. In some meetings they were divided into small groups. But still, we have to take time outside of college. Generally, their difficulty was on an English basic. (Respondent 2: 30/12/2020).

This is also supported by another statement.

Good enough. They are basically enthusiastic if they are noticed / evaluated one by one. But it will take time. Meanwhile, the meeting time is very limited.

Learning Needs

Learning Preferences

Table 12. Learning Preference

No.	Learning Preferences	Students	Graduate	Lecturer	Average
1.	Learning individually	3.18	3.3	4	3.54
2.	Learning in pairs	3.30	3.2	3.5	3.57
3.	Learning in a small group	3.34	3.3	4	3.83
4.	Learning in a big group	3.18	3.2	3.5	3.54
5.	Learning through reading while taking notes	3.36	3.3	3.5	3.59
6.	Learning through role play	3.30	3.1	4	3.82

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 seen the majority of respondents chose the learning preferences that is learning in a small group as one of the learning preferences are included in the category that is very important with the highest score. Then other learning preferences such as learning individually, learning in pairs, learning in a big group, and learning through reading while taking notes are also in the very important category. Students chose learning through reading while taking notes as their learning preference with the highest score in the important category.

Learning Style

Table 13. Learning Style

No.	Learning Style	Students	Graduate	Lecturer	Average
1.	Learning through picture	3.61	3.5	4	3.70
2.	Learning through video	3.40	3.8	4	3.73
3.	Learning through audio	3.65	3.9	3.5	3.68

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 what learning styles help students learn English more? Students answered learning through audio in a very important category, then afterwards learning through picture and learning through video. Overall respondent answered that learning through picture is very important for them, the second is learning through video with a number and the last is learning through audio which is in very important category.

CONCLUSION

The analysis of student targets and needs shows that the need in learning English for Biology Education students is academic necessity which will later support their future, namely to get a

scholarship and get a better job. In learning component students need Reading as a language skill component. Then the topics that needed the most by students of Biology Education is cells. While language skills that are the most often used in learning process is reading. In language skill aspect, in writing aspect students' needs skills in can write with the correct grammar structure, then in speaking aspect students' needs able to speak with the correct pronunciation, in listening aspect students need able to understand listening in any context, and the last aspect, in reading students' needs able to understand reading material specifically, in detail, and understand the main ideas of any reading material. In addition, Biology education students need reading skills because their material is based on scientific literacy.

Present Situation Analysis identified current students' proficiency and shows that students are weak in speaking, besides that in learning English students experience problems in the lack of motivation.

In learning needs learn by reading while writing as a learning proficiency and learning through video as their learning style. Through appropriate teaching methods and media that are integrated in the classroom, lecturers can provide an appropriate learning atmosphere for students in the classroom based on the needs of students, the objectives and learning objectives set.

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