

## WHAT MATH STUDENTS NEED TO LEARN ENGLISH?

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**Abstract:** *This research aimed to analyze the needs in the process of learning English and to know the specific information about content and material needed by math students. This research was descriptive qualitative and conducted in the third semester of the Mathematics Education Department of STKIP Muhammadiyah Pringsewu Lampung. It was a qualitative descriptive research by collecting data from interviews and documentation. The results showed that English is important for professional needs because it is needed in all fields. In addition, speaking and grammar were difficult aspects for students. The basic laws of mathematics as materials were needed the most.*

**Keywords:** *Target Needs, Descriptive Analysis*

### INTRODUCTION

In education nowadays, there is a demand of specific material for teaching that connects to real context and situation. Nevertheless, teaching English for Mathematic Education should be connected to their needs. It is in line with the purpose of English for Specific Purposes (ESP) goal. ESP refers to the teaching and learning of English as a second or foreign language where the goal of the learners is to use English in a particular domain. Moreover, Robinson (1991: 3), the main feature of ESP that distinguishes it from GE, is learning that is oriented towards specific goals, more specific in the field of academics and the

profession. Meanwhile, the substance of ESP is designed and developed based on the concept of needs analysis. This concept seeks to connect what is needed by learners in both the academic and professional fields. Because of this, ESP places more emphasis on learners at academic or higher education levels and at the professional or workplace level.

The importance of doing a need analysis in ESP aims that the language taught is really the language needed in the field to be occupied by learners. According to the results of the observation conducted to students of STKIP Muhammadiyah Pringsewu Lampung that have taken English as their

subjects, so far in teaching and learning process the material tends to lead more to the wisdom of English lecturers. So that not infrequently the selection of material for teaching materials is more general (General English), not in accordance with the field of science being studied. Consequently, the motivation to learn English math Education is reduced. They consider English courses as a complementary course because they do not support the development of their interests or scientific fields.

According to Seels and Glasgow (1990) cited by Sanjaya (2008), needs are a gap between what is available and what is expected and needs analysis is a process of gathering information about gaps and determining priorities of gaps to solve. There are several needs analysis models proposed by experts. One of them is the four philosophies stated in Brown (1995: 38-39). He divided information gathering in needs analysis into four philosophies: difference philosophy, philosophy of democracy, analytical philosophy, diagnostic philosophy. Hutchinson and Waters (1987: 54) divide needs into target needs and learning needs. Target needs are the needs of students in the target situation, while learning needs are what students need to learn. Analysis of target needs can see the needs, disadvantages, and desires of students. From the opinion stated above, the model proposed by

Hutchinson-Water is considered the right model to be applied in this study, because each model has many contributions to analyze the most effective learning that fits the needs of students.

## **METHODOLOGY OF STUDY**

This research method uses qualitative descriptive research. Lambert & Lambert (2012: 255) mentions that the goal of qualitative descriptive studies is a comprehensive summarization, in everyday terms, of specific events experienced by individuals or groups of individuals. Whereas according to Creswell (2009), descriptive qualitative research means to explore and understand the meanings that are described to individuals or groups for social or human problems. The purpose of target needs analysis is to gather information on students' needs and learning needs. Data were analyzed as a basis for developing English learning materials in the next term. The subjects of this study were Mathematics education department students from third semester who were taking an English course in STKIP Muhammadiyah Pringsewu Lampung. This study uses two types, namely instruments are:

1. The interview is used which contains several questions to know deeply about the problem of the person being interviewed.
2. Documentation is used which contains records of phenomena in the form of recordings, images or videos.

In this case, to avoid invalid data, it is important to check its validity using the triangulation technique.

## RESULT AND DISCUSSION

English for Mathematics Education Program is a compulsory subject that must be taught for students in semester three with the weight of subject is 2 credits which include in the subject the theory and practice. Before the research was conducted, the selection of the materials to teach English for Mathematics Education Program was more likely to focus on teaching basic reading skills, the discussion focused on the elements grammatical, while having small portion in teaching other language skills such as listening, speaking and writing skill.

### *Necessities and Lacks*

Basically students of Mathematic Education Program were expected to become the well qualified graduates who can compete in job market, continue the study, get the scholarship for graduate program also get scholarship abroad. To meet the target needs (necessities), STKIP Muhammadiyah equipped the students with English proficiency. Based on the result of interview, most of students stated that the purpose of learning English in mathematics was for personal needs such practicing English skill in front of the foreigners and also showing off to the colleagues. However, in real condition they used English as the language for communication which only depended on the occasion that is needed to use it.

To reach the objective, the material need to be reviewed, and should be considered to the graduates needs.

### *Necessities and Wants*

Regarding skills speaking, obtained data stated that learning more English skills was required by Mathematic Education students, based on the top sequence obtained data that in language learning English, speaking

skills (Speaking) was more desirable or needed, then followed by writing skills and listening skill. Meanwhile, the students' interest for reading skill becomes an option.

This proves that all this time learning English has big portion in reading skills, by providing reading text on students then they must read and answer questions based on the reading text while other skills are very much needed in the world of work not accommodated properly. The desire of the student (wants) leads to increased ability speaking (Speaking) this is very according to the needs of the job market which requires skills communicate in English.

Therefore for fulfillment target needs (necessities), English learning on Mathematics Education program not only in reading skills (Reading), as has been done during this, but also prioritizes speaking skills and writing. In other words, more target needs (necessities) focusing on speaking skills (Speaking) and writing (Writing). Thing this is in accordance with the needs of the job market, where almost all companies place language skills English both verbally

and in writing as the main requirements in employee acceptance.

To support the achievement, it is required some supporting facilities. From the obtained information that average Mathematics Education students complaining about learning facilities inadequate English or incomplete, among others lack of laboratory use language, video, and so on.

This can be overcome by building the good coordination to the language laborer for facility use above so the activity English learning can be maximally applied. Apart from that, it is also known one factor that becomes less maximum language learning English in the class is related to "class management". It is because during this activity English learning still less maximal and less effective where in one learning class English, the number of students ranging from 30-40 students. If more English learning was focused on improvement speaking skills, then the process of learning English ineffective and the results are not maximum. Because of mastery this communication skill is very requires the intensity of the exercise high. For this reason, activity is needed English

learning with smaller classes or groups small.

Based on the data finding, the implementation language learning activities also contributed to the effectiveness of teaching English for Mathematics education for examples, conversation activity and group discussion. If both are well accommodated in the class, they will motivate students to be more active learning.

Moreover, based on the data obtained, the suitability of material with the main subject namely Mathematics Education study fields; 13% matches, 30% is enough accordingly and 57% did not match the field of study underwent. Giving English learning material in accordance with the main field of study students will be very useful to prepare students in facing job competition. This can increase student motivation to learn English because the material provided is in accordance with what they want.

## CONCLUSION

The purpose of this study was to analyze student learning needs on the contents of English material for

Mathematics from the Mathematics Education Department at STKIP Muhammadiyah Pringsewu Lampung. Therefore, students can learn mathematical material in English as a science that is learned and applied to work after graduation.

Based on the analysis, results can be concluded that;

1. Student's English ability was still relatively low. This was based on the results of the final examination of 35 respondents with ratings based valuation standards that apply at, which was at a good level of ability 13 %, enough ability level 37% while at the level of less than 50%. This data reinforces the finding that the average.
2. According to the needs of students (wants) will learn English, 50% students increased in oral communication or speaking skills, 15% listening and 15% writing was a priority main in learning English in preparation for entering the world of work. Meanwhile, all this time learning English in the mathematics education program focuses more on reading skills.
3. To meet the needs of the labor market and the desires of students

are necessary direction of learning objectives is made English in the class by prioritizing improvement ability to communicate well in a manner oral (Speaking) and writing (Writing) accompanied by increased the ability understanding of the textbook that matches their scientific field.

Meanwhile, suggestions for improvement English learning in class are;

1. Teaching English in mathematics education program needs to be obtained more serious handling with pay attention to various aspects determine the success of mastery English. English Language training will help students complete assignments lectures and more importantly is helping them inside competition in the world of work.
2. To achieve the expected goals namely creating well qualified graduates of Mathematics education program of STKIP Muhammadiyah Pringsewu Lampung that has the proficiency and English language skills as well as to meet the objectives the target of job market, it is needed practical lectures field, where students can train skills English directly in the field.
3. Building good coordination and cooperation with language laborer in terms of usage English learning facilities, especially laboratory use, language, use of media (videos, tapes) and in material selection. All of it (language laboratory, material selection or SAC) can support implementation of language learning England is more adequate and can be controlled well.
4. There is cooperation between lecturers with lecturers English about teaching English programs especially related to terms in the field of mathematics. For this reason, recommendations for English language material for mathematics students is material English learning for speaking ability, Whereas for specifically in mathematics, based on the finding is the students wants to learn about Mathematics Education students choose introductory material (statements in logic) as needed material the reason, the material statement in

logic needs to be mastered before learning the next material because the material is the basis of English for Mathematics (Introduction (statement in logic) as a respondent once said that “Because of our compilation we understand the material in advance to prepare further material must be mastered by the beginning.”

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