

## CHAPTER IV

### FINDINGS AND DISCUSSION

The findings and discussion are the fourth chapter in this study. It consists two important parts, such as findings and discussion. The findings consists of the results of research obtained in the field with questionnaire and interview. The discussion consists of data analysis described in the findings by comparing it with the theories that had been collected in this study.

#### **A. Findings**

This data presentation described about the result of research on the questionnaire and interview result as the primary data for supporting the topic about need analysis on English for Specific Purposes for Mathematics Education Department. It was to know about to investigate the problems faced and to find out the needs of fifth semester students of Mathematics Education Department in English for Specific Purposes class.

In this research, the researcher conducted to collect questionnaire data on 17-20 December 2019 and the interview data collected on December, 23<sup>rd</sup> and 24<sup>th</sup>. There were four class (A, B, C, D), especially in fifth semester students. The findings of this research were the description of two research questions of this research.

- 1. What are the problems faced by the fifth semester students of Mathematics Education Department in English for Specific Purposes class?**

The problems faced by the fifth semester students of Mathematics Education Department in English for Specific Purposes class is described below:

a. The Design of the Course

The problem is about the design of the course. Based on the syllabus designed for the fifth semester students of Mathematics Education Department, the objective of the course “English for Mathematics” are the students could solve the problems related with the concept of Measurements and Estimation, Ratio and Proportion, Algebraic, Geometry and Trigonometry, Statistics and Probability, finished the questions about PISA dan TIMSS, and students could design learning Mathematics using English.

There are a lot of materials to be mastered in a little time. In addition, the students also intended could teach Mathematics with using English language. It became a problem because by the time that is relatively limited, students must be mastered the material also do teaching practice in the classroom. As stated by students (AA):

*“Sebenarnya kan tujuan Bahasa Inggris untuk Matematika itu ya dibagian micro teaching itu bagian poin utamanya. Dan kami terbatas waktu belajarnya. Dan yang jadi minus karena dikelas itu tidak full Bahasa Inggris. Seandainya full Bahasa Inggris mungkin lebih bagus dan terarah lagi”.*

As has been stated at the beginning that need analysis an important role in ESP. Therefore, the design of the course should be made in such a way to cover this problem.

Dudley-Evans and St. John cited in Andriani (2008, p. 37) offer comprehensive concept of needs analysis which include environmental situation, personal information about learners, language information about learners, learners' lacks, learners' needs from course, language learning needs, professional information about learners and how to communicate in the target situation.

b. Students' Ability

Based on the result of questionnaire and interview that the researcher have done in the fifth semester students of Mathematics Education Department, the researcher found the problem which is related to students' ability. The students ever studied English in the beginning of the semester at the time carry out UPB as known as learning English that are required to all of Department at UIN Antasari Banjarmasin, so they are still less mastering English. Moreover, the students learned English for Mathematics for the first time in five semester.

The students have problems in revealed the sentence into English because it has limited vocabulary. As stated by students (YR):

*“Kosakata sedikit, kan tidak terlalu belajar Bahasa Inggris ini jadi masih banyak yang tidak tahu, tiba-tiba diujiannya ada yang kita tidak tahu dipelajari sebelumnya”.*

The difficulty faced in understanding Mathematics materials is grammar. As stated by students (A):

*“Kalau di grammar itu kan ada rumus-rumus, bla bla bla. Kalau kita artikan hasilnya pakai google, itu kan bisa berbeda artinya. Yang sulitnya di grammar”.*

In addition, listening was most difficult of the fourth language skills for Mathematics Education Department. As stated by students (A):

*“Yang sulit itu mendengarkan, karena pendengaran kita kan berbeda-beda, terkadang kalau kita misalnya mendengarkan dosen berbicara Bahasa Inggris lain dari apa yang kita dengar, seperti itu. Mendengarkan kalau dosennya bilang KNOW, kita mendengarnya /noŃ/ tidak ada K”.*

c. Students' Needs

Based on the result of questionnaire and interview that the researcher have done in the fifth semester students of Mathematics Education Department, the researcher found the problem of students' needs. The learning English for Mathematics still not entirely appropriate with what needs of students. Students need an evaluation after finished learning, but the lecturer do not did it. As stated by students (YR):

*“Tidak sepenuhnya sesuai. Salah satunya dari dosennya, cara beliau mengajar itu. Mengajarkannya kan dari awal, benar-benar dari awal sedangkan kita mahasiswa, tetapi memang penting juga. Memang dari awal terus dibimbing dari ini lagi. Misalkan kami presentasi, sudah maju, ya sudah gitu aja. Seharusnya kalau memang ada kekurangan kami dikritik dari awal disitu, cara penyebutannya, kalau beliau kurang. Pernah sibuk dimana, jadi lewat video. Jadi kan kita tidak tahu dimana salahnya. Kecuali kalau beliau memang ada, memang ada, kalau waktunya sempat”.*

Therefore, the lecturer should pay attention about how to manage the class so that the students can learn excitedly. As stated by students (PA):

*“Kan kita Bahasa Inggris ini kuncinya satu kan, praktek intinya. Ini tidak, kami itu malah kaya Bapanya menjelaskan, kami itu ngantuk-ngantuk. Iya intinya seperti itu, dari dosennya ini harus bisa juga mengelola kelas supaya kita itu lebih excited belajar Bahasa Inggris, tidak bosan. Bahasa Inggris ini kan sudah kurang lebih seperti Matematika kan, ada grammarnya segala. Nah kalau ibaratnya dosennya seperti mengajar Matematika (biasa) bakalan bosen juga”.*

Speaking is one of the four language skills is more needed by students of Mathematics Education Department. The problem here is the students not required to use full English in the classroom. They used English when necessary, but rather than that they do not use it. There is no which requires that they should use English any time in the class of English for Mathematics, so that they use it when needed. As stated by students (PA):

*“Soalnya kan emang dari dosennya tidak mengharuskan full Bahasa Inggris, selebihnya ya kami ketika praktek ngajar aja yang Bahasa Inggris, selebihnya pakai Bahasa Indonesia”.*

The students in class of English for Mathematics have limited materials. It can be seen that the students do not have handbook for learning, but they are given an ebook. Usually, they learn through the media power point described by the lecturer. As stated by students (PA):

*“Bapanya aja yang menggunakan, kalau kami itu menerima materi dari beliau, dicatat dibuku, seperti itu. Tetapi ada kemaren itu waktu kami mau middle, dikasihkan (ebook)”.*

## **2. What are the needs of fifth semester students of Mathematics Education Department in English for Specific Purposes class ?**

There were some ways to identify the students' needs through analyzing the target needs and learning needs.

### **a. Target Needs**

There were four questions about target needs, the first was “What is the goal you studied English?”. The second was “Who is your interlocutor in speak English language?”. The third was “where do you

use English language?”. The fourth was “What the conditions do you use English language?”.

The result of questionnaire and interview for the first question showed in following statement:

“Students of Mathematics Education Department studied English for success in college and the other reason for improving public speaking, following the course, graduating from college, want to go abroad and because English is International language”. As stated by students (RIZ):

*“Untuk berhasil dalam kuliah. Untuk memenuhi SKS, untuk menyambung hidup. Pasti Bahasa Inggris itu kan terpakai, jadi dalam kuliah perbanyak kosakata”.*

Whereas students studied English for the other reason such as for improving public speaking. As stated by students (A):

*“Karena public speaking itu sangat diperlukan dalam dunia kerja. Misalnya nanti jadi pengusaha terus bekerja sama dengan orang luar, tetapi kalau kita tidak bagus dalam public speaking dalam Bahasa Inggris misalnya, ya tidak bisa. Sehingga memerlukan orang lagi, ribet lagi”.*

The result of questionnaire and interview for the second question showed in following statement:

”Students of Mathematics Education Department speak English with partner such as with their friends in college”. As stated by students (AA):

*“Seperti teman aja sih biasanya. Teman sesama mahasiswa dikampus ini, seperti bertemu teman UPB, sambil bertukar kabar”.*

The result of questionnaire and interview for the third question showed in following statement:

”Students of Mathematics Education Department use English in the classroom”. As stated by students (YR):

*“Misalnya dikelas pada waktu mata kuliah saja. Karena pada waktu mata kuliah (English for Mathematics) itu dituntut harus memakai Bahasa Inggris. Jadi menggunakan Bahasa Inggris hanya dikelas pada waktu mata kuliah”.*

The result of questionnaire and interview for the fourth question showed in following statement:

”Students of Mathematics Education Department use English depend on conditions such as in class discussion and the other reason when English was needed, asked by the lecturer, in the classroom at the time English course, etc”. As stated by students (MDL):

*“Pada saat diskusi kelas. Kalau ada yang bertanya, kan diskusi kelasnya itukan mengajar, jadi dari pengajarnya itu bertanya kepada siswanya, seperti itu”.*

Whereas students use English depend on conditions such as when English was needed. As stated by students (A):

*“Hanya jika perlu saja. Intinya jika perlu baru digunakan”.*

#### b. Learning Needs

There were eight questions about learning needs, the first was “What the skills do you use frequently when learning English?. The second was “Which one the most difficult for you of the four English language skills?. The third was “In your learning preference, what the learning methods were important for you?. The fourth was “What the

aspects that made you difficult in English?. The fifth was “What the difficulties do you face in understanding Mathematics materials in English language?. The sixth was “What the activity or learning style are more effective can help you learn English?. The seventh was “Which the aspects do you think are more needed by students of Mathematics Education Department?. The eighth was “How often do you use English?.

The result of questionnaire and interview for the first question showed in following statement:

“Language skills used frequently by students of Mathematics Education Department was speaking”. As stated by students (AA):

*“Soalnya yang namanya pembelajaran otomatis harus menjelaskan, jadi speaking yang paling sering terpakai”.*

The result of questionnaire and interview for the second question showed in following statement:

“Listening was difficult language skills for Mathematics Education Department because it different written and pronunciation”. As stated by students (A):

*“Yang sulit itu mendengarkan, karena pendengaran kita kan berbeda-beda, terkadang kalau kita misalnya mendengarkan dosen berbicara Bahasa Inggris lain dari apa yang kita dengar, seperti itu. Mendengarkan kalau dosennya bilang KNOW, kita mendengarnya /noŃ/ tidak ada K”.*

The result of questionnaire and interview for the third question showed in following statement:



“Learning methods were important as learning preference for Mathematics Education Department were learn by itself. When learning by itself, the students feel more focused in learning”. As stated by students (NL):

*“Lebih nyaman belajar sendiri, soalnya kalau misalnya, pernah kan belajar kelompok lebih banyak bercerita, berbicara apa, segala macam. Kalau misalnya belajar sendiri itu kita fokus sendiri maunya belajar sampai apa”*.

The result of questionnaire and interview for the fourth question showed in following statement:

“Vocabulary was the aspect were difficult in learning English for Mathematics Education Department because the students do not know how to answer the question, describe their answer. It is caused they have a lack of vocabulary”. As stated by students (NL):

*“Karena kan seperti yang saya bilang, seperti final itu kosakatanya tidak tahu. Sebenarnya tahu jawabannya, tapi apa kosakatanya itu”*.

The result of questionnaire and interview for the fifth question showed in following statement:

“Grammar was the difficulties of the students of Mathematics Education Department in understanding Mathematics materials. As stated by students (A):

*“Kalau di grammar itu kan ada rumus-rumus, bla bla bla. Kalau kita artikan hasilnya pakai google, itu kan bisa berbeda artinya. Yang sulitnya di grammar”*.

The result of questionnaire and interview for the sixth question showed in following statement:

“Learning style which helped students of Mathematics Education Department in learning English was conversation because it would be easier to learn. As stated by students by (NL):

*“Percakapan lebih mudah dipahami. Kalau misalnya disuruh menulis cerita mungkin saya tidak terlalu bisa, tetapi kalau disuruh membaca yang ada dipercakapan itu lebih mudah, lebih mudah paham dengan apa yang dibahas”.*

The result of questionnaire and interview for the seventh question showed in following statement:

“Speaking was the aspect of language skills are needed by students of Mathematics Education Department”. As stated by students (NL):

*“Karena kalau melihat dari English for Mathematics lumayan banyak yang, ada sebagian yang bahkan satu, dua, tiga, pengucapan angka pun kurang tahu sampai salah-salah juga. 22 misalnya tidak tahu. Sering ada pertanyaan seperti tuliskan misalnya angka dibawah ini: 1.273 Bahasa Inggrisnya apa? Biasanya Bapanya mencontohkan dahulu setelah itu baru bertanya. Tetapi ada yang membantu memberikan jawaban semisal ada yang tidak bisa”.*

The result of questionnaire and interview for the eighth question showed in following statement:

“The students of Mathematics Education Department occasionally used English”. As stated by students (PA):

*“Kadang-kadang kalau ada lawannya untuk berbahasa Inggris bisa menggunakan Bahasa Inggris, tetapi misalkan di kehidupan sehari-hari kadang-kadang saja”.*

## **B. Discussion**

The discussion is the explanation of data analysis based on the research problem of the study. Based on the research findings, the researcher finds subdisions, those are: the problems facedand the needs of fifth semester

students of Mathematics Education Department in English for Specific Purposes class. In this session, the results of the research is discussed related to the theories collected in Chapter II.

In the findings of the research, the researcher found the problems faced by the fifth semester students of Mathematics Education Department in English for Specific Purposes class. As mentioned from the various experts cited in Andriani (2014. p.p 33 – 38). The problems are the *first*, that was about the design of the course. There are a lot of materials to be mastered by students, meanwhile the students also asked did the teaching practice in the classroom. So, the problem is the time which is relatively limited.

The *second* problem, that was students' ability. The problem related to how the students in learning English. The students still less mastering English because they learned English for Mathematics for the first time in five semester. So the students have some problems, there are in revealed the sentence into English because they has lack of vocabulary, grammar, and listening.

The last problem was students' needs. From the results found, the learning English for Mathematics Education Department still not entirely appropriate, one of them is from the way of the lecturer teaches who do not evaluate after do the learning. The students less excited and using English when needed. The other problem are the students have limited materials for learning. It can be seen that they do not have handbook for learning, but they

are given an ebook. Usually, they learn through the media power point described by the lecturer.

Meanwhile, the researcher found about students' needs in English for Specific Purposes. As mentioned by Hutchinson and Waters (2010, p. 55 - 63) need analysis was required that was included target needs and learning needs. Target needs were what the learner needs to do in the target situation. Students of Mathematics Education Department had said that English was very important for success in college. Which is for following the course, it can be useful in the future such as in the world of work as stated by students (YR) "*Misalkan seperti jadi guru di SD, guru Matematika kan, SD itu tidak mesti biasanya cuma Matematika, bisa kemana saja, jadi penting*". In addition, English was used by students with their friends in the classroom at the time English course and depend on conditions when English was needed such as in the class discussion.

Learning needs was the need that related with their learning in the situation. Based on the results of questionnaire and interview, Mathematics Education Department students never learnt English in the previous semester, because the course is only available in the fifth semester. The students were not required to communicate using full English in the class but many students chose speaking as a language skills that was frequently used. Speaking also was the aspects is needed by students. It is stated by students (AA) "*Kadang-kadang, karena memang tidak ada yang mengharuskan full Bahasa Inggris itu. Jadi paling iseng-iseng saja dengan teman ngobrol*".

*Bahasa Inggris itu. Paling waktu teachingnya saja pakai Bahasa Inggris (waktu ngajar)”. However listening was students’ difficult in the English language, the pronunciation was different depending written. In addition, vocabulary was also difficult aspect in learning English. Thus, the lecturer needed to use methods with a good learning strategy for the success in teaching and learning process.*

Grammar was also one of the causes of difficulties in understanding Mathematics materials. In addition, lack of vocabulary was also an obstacle in understanding the material. Therefore, the students of Mathematics Education Department learning English by itself because when they learnt by itself, they feel more focused in learning as stated by students (NL) “*Lebih nyaman belajar sendiri, soalnya kalau misalnya, pernah kan belajar kelompok lebih banyak bercerita, berbicara apa, segala macam. Kalau misalnya belajar sendiri itu kita fokus sendiri maunya belajar sampai apa*”. Learning style which helped students in learning was conversation because it would be easier to learn.