

Investigating the English language needs of Statistical Department Students of IST AKPRIND Yogyakarta

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ABSTRACT

The objective of this study was to investigate the English language needs of Statistical Department of IST AKPRIND Yogyakarta. 50 fourth and sixth semester Statistical students, the head of the department, 2 subject specialists and 4 alumni took part in this study. Data collection tools were questionnaire and interviews guide. This study followed qualitative and quantitative method. The findings showed most students studied English for having basic communication skills needed in the workplace. The result also showed speaking and reading skills became the main focus on studying English. Those two skills had a significant effect on their academic performance in content subjects and future jobs. In addition, the most important English language sub skills were listening to lectures, performing academic presentations, reading journal articles, reading textbooks and writing summary. The problems in listening were speakers speak too fast, unfamiliar words and lack of activity using English. Problem with pronunciation was encountered in speaking. Understanding general information of the text and finding specific information were the main problems in reading. The main problems in writing were vocabulary and construct good sentences with correct grammar. The students liked discussion and presentation as teaching and evaluation method. It is hoped those findings would be the basis for designing a suitable course that meet students' needs.



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1. Introduction

English has an important role in education as a means of getting information (academic purposes) and as one requirement in job competition. It is said that eighty-five percent of all information in science and engineering in worldwide informational storage and retrieval networks is in English (Grabe & Kaplan, 1986; Zengin, Erdogan & Akalin, 2007 cited in [Chien et al., 2006](#)). Therefore, to face the job competition, English courses are offered in Statistical Department of Institut Sains & Teknologi AKPRIND Yogyakarta (IST AKPRIND Yogyakarta) with the consideration that students' proficiency in this skill will have a great effect on their academic and professional success.

English course for the students of Statistical Department is offered as compulsory subject with the total credit of three and is conducted in the first semester The teaching of English in this department is offered in the form of English for Special Purposes (ESP) because it is intended to prepare the students for English used in specific disciplines to accomplish specific purposes or to meet specific needs of the learners.

Since the teaching of English in this department is in the form of English for Specific Purpose (ESP), it must be designed based on the learners' needs who are involved in a specific area of subjects. Hutchinson (1987) stated that ESP is an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning.

To determine the real students' needs it is important to carry out Needs Analysis (NA). Furthermore, identifying students' needs should be the first step in designing an ESP syllabus (Hutchinson & Waters, 1987; Nunan, 1988; Robinson, 1991; Dudley-Evans & John, 1998; Richard, 2001; Jiajing, 2007; Pertiwi & Kusumaningrum, 2019).

The importance of needs analysis lies on the facts that it defines the aspects of language that are essential for a specific area of teaching. It also gives the students the chance to have a say in the courses they study. Dudley-Evans & St John (1998) state that "needs analysis is the process of establishing what and how of a course".

According to Hutchinson and Water (1987) there are two basic distinctions in need analysis, target need and learning need. The target need is what the learner needs to do in the target situation and learning need is what the learner needs to do in order to learn. There are three components in target need, those are: necessities, lacks, and wants. Necessities is what the learner has to know in order to function effectively in the target situation. Lacks are what the learners haven't known. Wants is the learner's view of the necessities of the target situation.

Based on the researcher's observation, the teaching of English course in Statistical Department was less effective. This was because the teaching of English was not developed based on the students' needs and had not been well organized. Consequently, the students did not get the benefits from the English course and had low motivation in learning English.

There were some problems dealing with the teaching of English course at Statistical Department. One of the problems was the English lecturer tended to use topics based on her own judgment or preference without considering students' needs and sometimes in the form of English for General Purposes (EGP).

Considering the importance of needs analysis in ESP course, this research then will investigate the English language needs of Statistical Department of IST AKPRIND Yogyakarta and try to answer research question: What are the English language needs of Statistical Department at IST AKPRIND Yogyakarta?

This study then is designed with the aim of investigating the English Language Needs of Statistical Department at IST AKPRIND Yogyakarta.

It is hoped that by showing the clear relevance of the English course to their discipline, students' motivation could be improved to make learning 'better and faster' (Hutchinson and Waters, 1987). The results of the research will allow the lecturers and curriculum developers to design an effective curriculum, syllabi and materials of Statistical Department of IST AKPRIND Yogyakarta.

2. Research Method

This study followed qualitative and quantitative methods. The information was obtained through a questionnaire distributed to the students because it was the most appropriate tool for gathering the views and demands of the students. An interview was also conducted to get information about the expectation in the teaching of English from Statistical Department.

2.1. Participants and Setting

The study was conducted in Statistical Department of IST AKPRIND Yogyakarta. The participants involved were 50 Statistical fourth and sixth students, the head of the department, 2 subject specialists and 4 alumni of Statistical department of IST AKPRIND Yogyakarta

2.2. Instruments

For the purposes of collecting data in the need analysis, questionnaire and interview were used. The questionnaires were distributed to the students; interviews were pointed out to the head of Statistical Department, 2 subject specialists and 4 alumni.

1) *Questionnaire for the students*

Questionnaires distributed to the fourth and sixth semester students of Statistical were intended to get information about their expectations toward the English course and about the materials or topics to learn so that this course will match with their needs.

2) *Interview guides*

Interview with the head of Statistical Department relates to the expectation/needs and the implementation of the English teaching at Statistical Department.

Interviews with two subject specialists who teach different subject matters was expected that by having an interview with them, the teaching and learning instruction will match with the subject specialists' expectations and students' needs.

The interview with alumni consisted of some questions concerning their needs of English in the workplace.

2.3. Data Collection Procedure

The questionnaires were distributed to 50 fourth and sixth semester students of Statistical Department. The interview with the head of the department, two subject specialists was held on date. The interview with 4 alumni were conducted via phone (WhatsApp)

2.4. Data Analysis Technique

Data were taken from the questionnaires of students and the interview with the head of department, 2 subject specialists, and 4 alumni. All the collected data in the need analysis were analyzed. The data gathered from students' questionnaires were classified based on each item and will be changed into the percentage. The highest percentage of the item showed the most respondents' preference. Meanwhile, the results of the interviews were analyzed descriptively

3. Findings and Discussion

The needs analysis was conducted at Statistical Department, IST AKPRIND Yogyakarta. All the questions were directed to find information about students' needs (necessity), expectations (want) and problems (lack) in learning English.

3.1. The Results of Questionnaires from the Students

Questionnaires were distributed to get information about (a) students' perception about the teaching of English (b) the expected language skills and components covered in the course (c) problems encountered in learning English (d) teaching methods and evaluation. The results of the questionnaires were as follows:

1) *The Students' Perception of the Teaching of English*

Majority of the respondents (78 %) stated that English was very important and very useful for them and only 22 % respondents felt that English was important and useful for them. Those results revealed that the students are aware of the importance of English for them. Hopefully, it motivates the students to study English.

2) *The Objective of Learning English*

The ability to express the ideas in spoken form became the students' main concern in studying English (54%). There were 42% respondents who wanted to be able to read English textbooks. Only 4% respondents wanted to express the ideas in written form and no respondents wanted to listen to the spoken language.

3) *Intensity of Using English*

The intensity of English usage among students was not very frequent. Most respondents stated they rarely used English. This might be due to the lack of media and lack of opportunity to practice their English.

4) *The Most Emphasized Language Skill*

Speaking skill was the highest favorable skill needed by the respondents (60%) in order to achieve the learning objective. 26 % respondents stated that reading skills should be emphasized. Writing and listening skills had been chosen only by 4 % and 10 % respondents respectively.

5) *The English Components*

There were 22 (44%) respondents who wanted to learn vocabulary. Respondents who chose pronunciation and grammar were 30 % and 26 %. The respondents' choices on vocabulary and grammar can be understood since a lot of English references they had to read contained a high percentage of some complex grammar and specialized vocabularies. 30% respondents wanted to learn pronunciation since 60% of respondents chose the learning objective was being able to express the ideas in spoken form.

6) *English Subskills*

Among the listening skills, it was found that listening to lectures was the most important skill to be given to the students since 35 (70%) respondents chose this option. While listening to seminar are chosen by 10 respondents (20%). 8 % respondents chose listening to news and 2 % chose others.

Dealing with speaking skills that support their study in Statistical Department, 29 (58%) respondents choose performing academic presentation, then followed by asking questions in group discussion 18(36%). Only 6 % respondents chose others.

For reading skills, the majority of the respondents chose journal articles (78%) and reading textbooks (14%). There are 6% respondents who chose reading articles from the internet. Only 2 % of the respondents chose a reading manual. It can be seen that most of the Statistical students read English journals as their references to support their study.

Dealing with writing activities, writing summary after reading text was the most preference writing material (64 %). This answer was not surprising because writing a summary after reading was the real task given to them by the subject specialists. Writing paper/ journal articles became the second preference of writing material (22%). Writing lecture notes was preferred by 14 % of respondents.

7) *Problems in Studying English*

Some problems encountered by the students in listening were unfamiliar words used in a conversation, a talk, a speech or a film made them difficult to understand those kinds of activities (40%), the speaker spoke too fast for them (38%) and understanding context (22 %).

Lack of activities using English was the most problem encountered by the respondents (48%) in speaking. Mispronunciation became the second problem (40%) and no partner to practice English (10%). Lack of facility/ media did not become the students' problem in speaking since it was only chosen by 2% respondents.

The students' main problem in reading was understanding general information of text (40%). The complexity of the sentences and complicated vocabularies used in text lead to this problem. Finding specific information was the second problem in reading (28%). Problems of finding the main idea were chosen by 10 (20 %) respondents. 5 (10%) respondents chose understanding graphs, tables, and charts. 2% chose the others

The high percentage of the students' problems in writing dealt with constructing good sentences with correct grammar (56%), followed by lack of grammar and limited vocabulary (34%). The third writing problem was organizing ideas (10%). Most of the respondents did not have problems with content. Most of the respondents did not have problems with content.

8) *Teaching Method*

For the teaching methods, all students did not like lecturing. The students enjoyed interactive learning through discussion (54%), group work (20%) and presentations (18%) as methods of teaching. Only 3 students (6%) liked individual work.

9) *Evaluation*

Respondents' answers related to learning evaluation showed that the highest choice was in the evaluation model of presentation, participation in discussions (40%), followed by essay tests (30%), assignment (20%) and multiple choice (10%).

3.2. The Results of Interview Analysis

1) *The Head of Statistical Department*

The interview with the Head of Statistical Department was conducted to know 1) the expectation of teaching English in Statistical Department, 2) the language skills needed for the Statistical students, 3) the material/topics given in the English course 4) suggestions to improve the English teaching learning activities. The results of the interview with the head of Statistical department can be concluded as follows:

- a) According to the Head of Statistical Department, the objective of learning English was to make students able to communicate in English because it was required in the job market. To achieve the learning objectives, English language skills should be focused on speaking skill. However, reading skill should also be given because students had to read many English references and journals. Therefore, the teaching of English should be more emphasized on speaking and reading skills rather than the other skills, listening and writing.
- b) In line with the students, the head of the department suggested to use materials/topics relevant to students' area of specializations because these relevant topics were able to arouse the students' interest and motivation. The head of Statistical Department also suggested to make collaboration between English lecturer and subject specialists to provide appropriate materials/topics.
- c) The teaching methods should make the students more active. Assignments and study clubs outside of the class needed to be developed to improve students' English proficiency because the time allocation for English class in Statistical Department was limited.
- d) Related to the evaluation, instead of assignments, mid-semester exams and final semester exams that had been scheduled, the Head of Statistical Department proposed to conduct TOEFL test for new students as pretest and a post-test for last semester students as an evaluation of students' language skills.

2) *The Interview with the Subject Specialists*

The interviews were conducted to two subject specialists to get the information about (1) the expectation of the teaching ESP course in Statistical Department, (2) the language skills given to the students, (3) the appropriate topics or materials that were relevant with students' needs, (4) the English textbooks recommended as references.

Two subject specialists were in line with the head of the department. They agreed that the teaching of English should be able to make the students communicate in English to face the job market and to read various texts and journal articles related to the field of study. Therefore according to them speaking and reading skills should be given priority. Speaking skill should be given to the students with the consideration that the students need to be able to communicate in English especially in their future. The students often had to do presentations and faced job market competition. One of the subject specialists emphasized that English communication skill was very important since today's job vacancies required applicants who had English communication skills. Therefore they used English communication skills as their basic and first requirements in selecting the candidate of the employee. Furthermore, the 2 subject specialists stated that the ability to read and understand technical terms was also very important because the students had to read and understand a lot of English references containing technical terms often used in their subject specialization. One of the subject specialists also stated that writing skill also should be given to write journal.

The subject specialists suggested to use topics relevant to students' area of specializations and authentic textbooks/ references used in their real subject matter class and to introduce specialized terms often used in their field study to familiarize the students with the real academic tasks.

The subject specialists stated that students needed a lot of practice, and English clubs needed to be made as a medium for practice. Meanwhile, to motivate the students to use English, one of the subject specialists had delivered the materials and given tests in English. She also suggested to apply TOEFL score 450 as a requirement to graduate. Related to assignments given to students, the subject specialists asked them to read an English textbook and answer questions, gave assignments in English, read journals, did presentations in English and wrote summary after reading.

3) *The Interview with Alumni*

Information related to the use of English at the workplace was obtained from 4 alumni of Statistical students who had worked in different institutions such as BRI Bank, PPIC Kokola, Jackpat Data Analyst and Matahari Management Training. The following answers were given by the alumni of Statistical students in terms of English usage in their institutions.

The first alumni worked at BRI Bank who stated that English was often used and had a very important role in his institution, especially speaking skill. Having English competency was one of the qualifications that BRI employees must possess. The English language was used when dealing with investors. The alumni suggested to give students more speaking practice than any other skills.

The same answers were given by other alumni who worked at PPIC Kokola, Jackpat Data Analyst and Matahari Management Training. Having English competence was also one of the qualifications that employees should have. At PPIC Kokola, English was often used to interact with vendors, to make report, to write and answer email. As a consultant at Jackpat Data Analyst, the alumni often gave advice to clients in English. Another alumni working in the Matahari Management Training often used English when he had meetings with the manager or when he did negotiation. All the alumni agreed that the ability to communicate in English was very important so that the teaching of English in Statistical Department should be focused on speaking skill.

3.3. Discussion

Based on the interview with the Head of the Statistics Department, the outcomes/target expected by the Statistics Department are students who were able to compete in the job market. The result of questionnaire and interviews showed they studied English for their academic purpose and success for future career. Therefore to reach the objectives, it is necessary to equip the student with English language skills. The priority on language skills should be given were speaking and reading skills. The ability to express the ideas in spoken form became the students' main concern in studying English because it was very important for their future career. Reading skill also became the students' second main concern because most of the literature given by their subject lecturers were written in English. The students' ability in these two skills will have a great effect on their academic and professional success. Students' desire to focus on speaking was supported by 4 alumni. All the alumni from different institutions agreed that the ability to communicate in English was very important so that the teaching of English in Statistical Department should be focused on speaking skills. Writing and listening skills did not receive much attention from students. However, these skills were still needed in a little portion based on needs. Since many English references and journals contained special vocabulary and used complex grammar, the students wanted to learn vocabulary and grammar. Meanwhile the students' mastery in vocabulary and grammar were still weak. Pronunciation was also mentioned by the students to be learnt because speaking skill became the main focus in Statistical Department.

Listening to lectures, delivering academic presentations and question and answer in scientific activities, reading English journals or scientific magazines and English-language textbooks and writing summaries were types of English subskills that needed to be given.

The main obstacle (lack) often encountered by students in speaking (speaking) was mispronunciation of English words. The result of the questionnaire revealed the students rarely used English due to lack of activities using English so they didn't have the opportunity to practice. Therefore, the teaching of English in this department should be able to make students active to practice their English either in the classroom or outside of the classroom. In listening, unfamiliar words and the speaker speak too fast make them difficult to understand English talks.

Understanding general information of the text was the students' main problem in reading and followed by finding specific information. The students' problems in writing were dealing with constructing good sentences due to lack of grammar and limited vocabulary.

The result showed that all students did not like the lecturing method. The students enjoyed interactive learning through discussion, group work and presentations as methods of teaching. For evaluation the highest choice lies in presentation, participation in discussions (40%), followed by essay tests (30%), assignment (20%) and multiple choice (10%).

To achieve the target of increasing students' TOEFL scores, Statistical Department needs to facilitate the students with "TOEFL Preparation Course". The course is focused on preparing the student to get TOEFL scores above 450. The plan to use the TOEFL score as a requirement for graduate is very effective to increase student motivation to learn English.

4. Conclusion

The teaching of English in Statistical Department of Statistics still needs some improvement to achieve the learning objective. Conducting needs analysis involving students, the Head of Statistical Department, subject specialists and alumni help the English lecturer to prepare the appropriate English language teaching for Statistical Students. Based on the findings of the investigation, it is seen that the following recommendations are suggested:

- 1) When designing the English language course, ESP lecturers should be based on students' needs.
- 2) Selection of materials and activities should be based on the students' needs in relation to their future or present study because it would not only encourage, but also motivate the students to learn the English effectively.
- 3) Collaboration between subject specialists and English teachers are needed to get appropriate materials that can motivate the students to learn English.

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