

## DESIGNING ENGLISH SYLLABUS AND TEACHING MATERIALS FOR SPECIFIC PURPOSES IN BIOLOGY EDUCATION DEPARTMENT AT UMMI

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**Abstrak:** Penelitian ini dibuat berdasarkan masalah-masalah yang terjadi di lingkungan Program Studi Pendidikan Biologi Universitas Muhammadiyah Sukabumi yaitu pemberian bahan ajar yang sangat umum dan tidak sesuai dengan kebutuhan siswa. Tujuan dari penelitian ini adalah untuk (1) mengetahui kebutuhan siswa; (2) mengetahui apakah materi yang selama ini diberikan sudah sesuai dengan kebutuhan siswa; (3) mengetahui kegiatan yang sesuai dalam proses pembelajaran bahasa Inggris. Sampel dari penelitian ini yaitu mahasiswa semester empat dan enam, serta dosen Program Studi Pendidikan Biologi Universitas Muhammadiyah Sukabumi. Penelitian ini menggunakan metode kualitatif dengan pendekatan ESP dan menggunakan empat teknik pengumpulan data, yaitu: dokumen, kuesioner, wawancara, dan observasi. Hasil penelitian ini yaitu: (1) keahlian bahasa Inggris yang dibutuhkan yaitu membaca teks ilmiah yang berhubungan dengan bidang biologi dan pendidikan; (2) materi yang selama ini diberikan belum sepenuhnya berhubungan dengan kebutuhan siswa; dan (3) kegiatan pembelajaran bahasa Inggris harus diberikan dengan cara yang lebih menarik dengan banyak ragam sumber bahan ajar dan strategi pembelajaran yang disesuaikan dengan kebutuhan siswa. Penelitian ini terlaksana dengan baik dan dengan hasil yang baik pula, karena penelitian ini dipercaya sudah cukup menjawab permasalahan-permasalahan yang sering muncul di lingkungan Program Studi Pendidikan Biologi.

**Kata kunci:** kebutuhan siswa, materi bahasa Inggris, biologi

### INTRODUCTION

#### A. Background of the Study

There are so many problems that happen in English teaching and learning process some of them are related to the course materials. In this study, the research was done in Biology Education Department in Faculty of Education at Sukabumi Muhammadiyah University, West Java. The main problem of the course materials given in Biology Education Department Sukabumi Muhammadiyah University was about the content of the course materials itself which was presented in very general. The problem came also from the syllabus used that was not exactly relevance with the real condition that happen in the class.

Besides the course materials, other problems come also from the lecturers with the specific educational background related to Biology and Education sciences which were unavailable. In giving the teaching and learning activities, the lecturer gave a very limited sources and materials, and teaching strategies that used by the lecturer were monotonous.

The problem in the course materials given in English for Specific Purposes in Biology Education Department at Sukabumi Muhammadiyah University was important to be investigated because it was a real problem in a real situation which was happened in the researcher's environment and the researcher tried to solve it.

#### B. Research Problems

The process in designing syllabus and teaching materials for Specific Purposes in Biology Education Department at Sukabumi Muhammadiyah University faced so many problems inside, and it is summarized in three main problems, they are related to:

1. The students' needs;
2. The relation between the course materials and the students' needs; and
3. The activities in presenting the course materials.

#### C. Purposes of the Study

This study was focused on English course materials in Biology Education Department Sukabumi Muhammadiyah University.

Related to the research problems, the objectives in this study are:

1. To find out the students' needs related to English materials for Specific Purposes in Biology Education Department at Sukabumi Muhammadiyah University.
2. To find out whether the English materials given in teaching and learning English for Specific Purposes in Biology Education Department Sukabumi Muhammadiyah University have been relevant to the students' needs.
3. To find out what kind of activities that suitable for the process of teaching and learning English for Specific Purposes in Biology Education Department Sukabumi Muhammadiyah University based on the need analysis.

#### **D. Significances of the Study**

This study was intended to investigate the implementation of English syllabus and teaching materials in Biology Education Department at UMMI. The results of this study provided some information and the significances, they are:

##### **1. Theoretically**

In theoretical significances, the findings of this research were expected for supporting the existing theories, especially for the previous researches with the similar problems.

##### **2. Practically**

The findings of this research are valuable for:

- a. English lecturers, especially who teach in non-English department to find out their students' needs as the basic of the materials given, to check their own materials: is it already relevant or not with the students' needs?, to prepare and improve their self to give the best activities in presenting the course

materials based on the students' needs.

- b. Non-English Department for example Biology Education Department which prepare the materials to be used as an advice to give the best materials based on the students' needs, to check the materials given: are they already appropriate and relevant with the students' needs or not, because people inside the department are people who know better about their own students' needs, and as advices of what activities that they needs to improve and prepare in the future.

These findings of this research are also valuable for the future researches to give an imagination how to make a similar research with the similar or different problems, and for everyone who read this study to keep and improve the good things, realize the problems or the bad things and try to solve the problems.

#### **E. Review of Related Literature**

There were many literatures used in this study related to the course materials for Specific Purposes in Biology Education Department at Sukabumi Muhammadiyah University. In this part, the researcher focused on four main subjects, they were: course materials, needs analysis, English for Specific Purposes, and Biology Education Department.

The course materials consist of lecture notes, supplementary reading or exercises, and links to other sites or software or all of the sources that are used in teaching and learning activity. Davis and Krajcik (2005) stated that "materials should help teachers in increasing their knowledge in specific field and in developing more general knowledge that can be applied in every situation". From that statement, it could be seen that the materials must be present the specific field which is related to the purposes of the study and it has to be flexible to make the teachers could easily use it. Course material is important to be

investigated since it becomes the main source used by the teacher in the teaching and learning process.

The process of implementing English course materials in Biology Education Department at Sukabumi Muhammadiyah University must be related to the students' needs as the main background, not only in designing the course materials, but also the whole process of the teaching and learning process. Nation and Macalister (2009:24) stated that "need analysis is directed mainly at the goals and content of a course. It makes sure that the course will contain relevant and useful things to learn". The need analysis was important to be investigated because it was believed that the need analysis is the basic of an appropriate teaching and learning process.

In this study, the researcher's focus was in English subject which is taught as one of general course which is taken in Biology Education Department at Sukabumi Muhammadiyah. In Indonesia, English is known as a foreign language, Ellis, Gass and Selinker stated that "the term of a foreign language refers to a non-native language which is learned and used by non-native speakers in the environment of non-native language," this statement was quoted in Djonhar (2012:2). In other book, Harmer (2007:11) stated that: "Students reasons for wanting to study English can differ greatly, some people need English for a Specific Purposes (ESP), and many other learn English because they think it will be useful in some way for international communication or travel". In this study, ESP is an approach to language teaching which aims to meet the needs of particular learners.

This research was done in Biology Education Department in Faculty of Education at Sukabumi Muhammadiyah University. Biology Education Department is a department that prepares their students to be the biology teachers, that was why the information that was needed for the students not only came from biology field, but also from educational field. Those theories were

used as the basic knowledge for the study which concern in English course materials for Specific Purposes in Biology Education Department Sukabumi Muhammadiyah University.

## **RESEARCH METHODOLOGY**

### **Research Design**

This study used qualitative research design with ESP approach. The qualitative used in finding the needs analysis and in designing the English syllabus and teaching materials in Biology Education Department at Sukabumi Muhammadiyah University.

Since this study was done in Non-English Department, English for Specific Purposes or ESP approach was the most appropriate one in conducting this study related to designing syllabus and teaching materials in Biology Education Department at Sukabumi Muhammadiyah University. ESP approach was believed as the most suitable one to find the best syllabus and teaching materials based on the students' needs.

In order to create an effective teaching materials, it needs some sequence steps. They are: doing need analysis, designing syllabus, and then implementing the materials.

### **Data Collecting Techniques**

For gathering data in this study, the researcher used four kinds of data collecting techniques, that is:

1. Document. The documents in this study came from many sources; they were from the books, articles, journals and syllabus.
2. Open-Ended Questionnaire. This questionnaire was administered at the beginning and the end of the semester when the English subject was taken by the Biology Department's students.
3. Interview. In this study, interview was done to gain the data from the lecturer. The lecturer in this study came from Biology Education Department at Sukabumi Muhammadiyah University. This interview activity done in two

settings, the first one was an interview with the purposes to gain the data about the students and stakeholders' needs, and the second interview done in consultation activities.

4. Observation. It has been done in the teaching and learning process in English Course in Biology Education Department classroom. In this setting, the researcher had a role as a lecturer who taught this class and the observation happened in the real teaching and learning situation.

### **Research Participants**

The participants of the study came from Sukabumi Muhammadiyah University environment. Those participants consisted of the chairperson and lecturer from Biology Education Department, and also fourth and sixth semester of Biology Education Department's students at Sukabumi Muhammadiyah University in 2013/2014 academic year. For the students, the classes consist of 20 students for the 4th semester, and 27 students for the 6th semester with the mix of English ability, gender, and English learning experience.

## **RESULTS AND DISCUSSION**

The results and discussion were classified based on the objectives of the study that were related to the students' needs, the relevance of the English materials given to the students' needs, and the kinds of activities in presenting English materials that are considered to be used in Biology Education Department at Sukabumi Muhammadiyah University. Those data influenced the whole process of presenting English course materials in Biology Education Department at Sukabumi Muhammadiyah University.

### **Students' Needs of English**

The researcher used questionnaire and interview for gathering this data. The questionnaire were answered the questions about the giving of syllabus, the comprehensible of the materials given, and the

materials that students think were really needed. Based on the answers, it could be interpreted that since the lecturer did not give the syllabus at the beginning of the lecture, the students did not have an idea about the materials achievement because it usually could be seen from the syllabus. Based on the comprehensible of the materials given, most students answered that the materials given were difficult to be understood, and they really need materials about speaking, grammar, vocabulary, Biology materials, reading, conversation, journal analysis, writing, translating, and teaching in English activities.

Interview was done to gain the data from Biology Education Department's lecturer. The results of the interview were answered the questions about the department's expectations from the students related to English mastery after joining the course, and the use of ESP and General English. It could be interpreted that the department's expectations were that their students could understand English scientific text related to Biology and Educational fields rather than grammatical mastery, and they could use English in teaching activity. Talked about the kind of English materials given, the department preferred to use ESP than General English because based on the scientific context, students will be more interest in a course when it is directly related with the specific field that they need than with something's general.

### **The relevance of the English materials given to the students' needs**

To see the relevance of the English materials given to the students' needs, the researcher used two kinds of data collecting techniques, that is: document, and questionnaire. Based on this syllabus, it could be seen that the content of the course was mostly related to general English rather than Biology field. Based on the questionnaire, the results were answered the questions about the relevance of the materials given with the syllabus, the relation of students' expectation with their impression after joining this course.

It could be interpreted that since the lecturer did not give the syllabus at the beginning of the lecture, the students did not have an idea about the materials achievement

and its relevance to the syllabus. For the relation of students' expectation with their impression after joining this course, it can be seen in the table below:

Students' Expectation versus Students' Impression

Students' Expectation	Students' Impression
Students can understand the materials given in the course	The course are difficult to understand
Students can translate the journals and articles	Lecturer did not give analysis journals activity
Students can have a variety of activity and course materials in this course	The course are bored, not interesting
Students can mastery the English vocabulary in Biology field	The materials given were not related to Biology field

Based on the table above, it could be interpreted that the students' impressions were not relevance with their expectations which would be much better if those two elements were relevant, so the purposes of the course could be achieved well.

**The activities in presenting the course materials**

To see the kinds of course materials that are suitable to be presenting for Biology Education Department students, the researcher used two kinds of research instruments, that is: questionnaire, and interview. Based on the questionnaire, the lecturer used the handbook in the process of teaching in the classroom, but students stated that the lecturer was not always give other materials sources beside the handbook, for example articles or other sources because even the lecturer gave them the copied of materials, those materials were come from the same handbook with which the lecturer had and the lecturer are rarely also to asked the students to find their own materials sources. For the materials given, mostly students answered that the materials given were difficult to be understood. For the students' materials needed, it could be interpreted that there were so many kinds of

course materials that were still needed by the students but not fully given yet by the lecturer.

Based on interview, the language skill preferred to be gained by the students was reading, so the materials given also preferred in the form of scientific texts, such as books and international journals about biology and education, and also other materials related to students' Biology vocabulary mastery. It influences the activity in the class that preferred to learn about text comprehensive (especially: books, article, and international journal), writing, and teaching biology activities.

Based on English ability that was expected more in this course, that is reading; it was better if the materials were given more in a written form with some suggested methodologies, they are group and class discussion, journal analysis, and homework (translating and vocabulary mastery). This data influenced the activities in presenting the course materials in Biology Education Department at Sukabumi Muhammadiyah University.

Based on the data above related to the English course materials, It was important to use an appropriate syllabus based on the

students and stakeholder's needs to be used in Biology Education Department at Sukabumi Muhammadiyah University to answer the

students and stakeholder's needs, and here was the proposed syllabus:

### Proposed Syllabus

Subject : English  
 Department : Biology Education  
 Semester : 4<sup>th</sup>  
 Credit : 2  
 Time : 16 meetings X 80 minutes

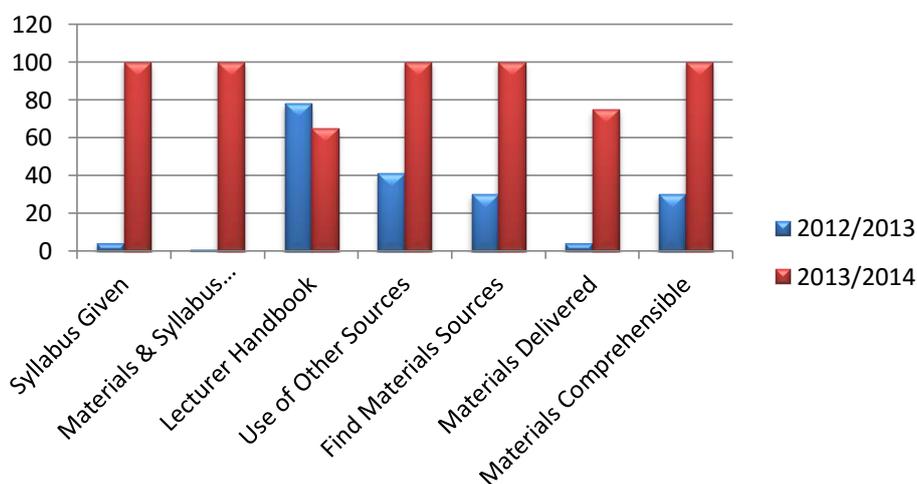
Short Description	
Students can read and comprehend the scientist texts in English that can support them in learning Biology and improve their writing and speaking ability with a better structure.	
Objectives	
1	Students can read and understand some Biology terms and the use of grammar in the scientist texts in English.
2	Students can find out the main idea of paragraph, article and journal by reading and interpreting activities.
3	Students can use an appropriate English in written and spoken language in teaching and learning activities inside and outside the classroom.
Materials	
Meeting	Explanation
1	General Introduction of English subject in Biology Education Department and basic English ability measurement for the students.
2	Grammar and structure. Grammar and structure is given for refreshing the students' memories about the use of English structure that they already got at schools and then implement it in Biology Education context.
3	General Reading. Read aloud, find the main idea, and answer some questions related to scientific text given.
4	Listening & Writing. Find out and explain the main idea from video in group discussion activity.
5	Reading comprehensive. Reading and interpreting the article or journal about Biology. (text given)
6	Reading comprehensive. Reading and interpreting the article or journal about Biology. (students find their own text)
7	Speaking. Group presentation use Biology's terms.
8	Midterm
9	Reading comprehensive. Find out and explain the main idea of article or journal about Education in written language. (text given)
10	Speaking. Group discussion about Educational Problems in Indonesia today.
11	Reading comprehensive. Find out and explain the main idea of article or journal about Biology and Education in spoken language. (text given)
12	Reading comprehensive. Find out and explain the main idea of article or journal about Biology and Education in spoken language. (students find their own text)

13	Writing. Lesson Plan's writing.
14	Oral presentation. Personal Biology Micro Teaching.
15	Oral presentation. Personal Biology Micro Teaching.
16	Final Exam
<b>Teaching Strategies</b>	
Autonomous Learning with some activities:	
1	Presentation
2	Discussion
3	Outdoor activity
<b>Evaluation</b>	
1	Attendance
2	Homework
3	Products
4	Presentation
5	Midterm and Final Test.

To see the impact of the implementation of English materials for specific purposes in Biology Education Department at Sukabumi Muhammadiyah University, the researcher gave questionnaire that administered to the 4th semester students in Biology Education Department at Sukabumi Muhammadiyah University 2013/2014 year academic who directly involve in teaching and learning process as the implementation of English course materials for Specific Purposes in Biology Education Department at Sukabumi Muhammadiyah University.

The questionnaire given were same with the one which already given to 6th semester students in Biology Education Department at Sukabumi Muhammadiyah University that already took English course a year ago. The result of the questionnaires would be presented side by side to see its comparison which could give a clearly picture of the implementation of English materials for specific purposes in Biology Education Department at Sukabumi Muhammadiyah University a year ago in 2012/2013 academic year (A) and today in 2013/2014 year academic (B), and here is the results:

To make it easier to see the effectiveness, the researcher made the diagram based on this data:  
Results of Questionnaires



For the relation of students' expectation with impressions after joining the course, and here are the results:

Results of Questionnaires

Factors	A (2012/2013)	B (2013/2014)
Contents of Materials	😊 😊	😊 😊 😊 😊
Students Comprehensibility	😊	😊 😊 😊 😊
Teaching Strategy and Media	😊 😊	😊 😊 😊
Students' Interesting	😊	😊 😊 😊 😊
Students Motivation	😊 😊	😊 😊 😊 😊
Expectation Achievements	😊	😊 😊 😊

\* Smile emoticons in the second and third columns represented students' appreciation of the supporting factors in the first column.

Based on the table above, it could be seen that the contents of materials presenting in column B was appreciated better than in column A, this is also happen in the students comprehensibility of the materials presenting, teaching strategy and media, and students' interesting and motivation. This data gave a big influence on the expectation achievement of teaching and learning process that already done in Biology Education Department at Sukabumi Muhammadiyah University. Based on the whole findings and discussion in this research, it could be summarized that the implementation of English materials for specific purposes in Biology Education Department at Sukabumi Muhammadiyah University in was better than the previous materials.

## CONCLUSION AND SUGGESTIONS

### Conclusions

Based on the results of the data analysis and discussion of this research, it has been found that:

1. For the students' needs, the most needed English materials is reading

related to Biology and education fields.

2. For the relevance of English materials given in teaching and learning English to the students' needs, it could be concluded that the English materials given was not fully relevant to the students' needs.
3. For the activities that suitable for the process of teaching and learning English, the activities in presenting materials should be more interesting with many varieties of materials sources and strategies based on the students' needs.

The implementation designing English syllabus and teaching material for Specific Purposes in Biology Education Department in this research has been done well with a good result, and it is believed that this research has been answered the problems that commonly happen in Biology Education Department environment.

### Suggestions

Based on the conclusions above, the researcher had some suggestions as follow:

1. The lecturer or teacher should do need analysis before teaching and learning activity done as a basic of materials selection.

2. The lecturer or teacher should make an appropriate syllabus based on the students' needs as a basic data to make a better teaching and learning process.
3. The lecturer or teacher should use many varieties of materials sources and strategies in presenting materials based on the students' needs.
4. It is proposed for next researchers to design how to evaluate the reading ability for the English subject in non-English Department.
5. It is proposed for next researchers to design how to make a better syllabus and lesson plan based on the students' needs.

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