

Needs Analysis of Agricultural English Teaching in an Indonesian Islamic Higher Education Context

Muhammad Yunus

muhammad.yunus@umi.ac.id

Universitas Muslim Indonesia

Sitti Halijah

sitti.halijahh@umi.ac.id

Universitas Muslim Indonesia

Abstract

The research is the development of Agricultural English teaching materials at Universitas Muslim Indonesia. The purposes of this research are to (1) produce a type of Agricultural English teaching material suitable to be used by the students of Faculty of Agriculture UMI and to (2) discover why the students are learning English. The method used is research and development. The research site was at the Faculty of Agriculture UMI with the number of 50 respondents. The results showed that based on the student responses, 12 out of 42 topics occupy the highest percentage needed for Agricultural English teaching materials. Those 12 topics are as follows: rice, tomatoes, chili, shallots, eggplant, papaya, rambutan, coconut, coffee, land, disease pest, and seeds. Then, the purposes of the students learning English can be categorized into two major groups, namely to anticipate competition in the workplace where the ability to communicate both oral and written is needed and to prepare themselves in the academic field both to complete S1 (undergraduate degree) and to continue their studies S2 (master degree).

Keywords: ESP, Agricultural English teaching materials, Material Development.

INTRODUCTION

Considering the importance of English as an international language, the government of the Republic of Indonesia nationally stipulates Law No. 20 concerning the National Education System Article 37 Paragraph 1 of 2003 concerning English which is the only foreign language that must be studied by students starting from junior high school. (Middle School), then High School (SMA), to Higher Education (Kesowo, 2003). Then in the last few years, English subjects have been introduced in Kindergarten (TK) and in Primary Schools (SD) through the local content curriculum.

RI Government Directives related to Higher Education Curriculum in Indonesia through the Decree of the Indonesian Ministry of National Education No: 232 / U / 2000 stipulates that the College Curriculum consists of a core curriculum and an institutional curriculum. The core curriculum is set nationally by the Indonesian Ministry of National

Education, while the institutional curriculum is determined by each university. In the institutional curriculum, there are several courses that must be studied by students. One such subject is English.

English courses generally aim to anticipate competition in the era of globalization. To be able to adapt and keep abreast of the increasingly advanced global flows, the use of international languages, especially languages Inggris become very important. By entering the free market today, everyone must prepare reliable resources, especially on the communication aspect. Language is very important for mastering communication. As we all know, English dominates all aspects of communication between nations. It cannot be denied that English is very much needed now because English has been recognized and agreed upon internationally as the official language that is used universally both in the fields of technology, education, economics, politics, culture, and various other fields.

In addition to this, English courses specifically play an important role in the academic aspects, for example, there are several courses requiring to use English-language literature, so mastering English is very important because it does not only translate but also understands the literature. Then if someone wants to get a Masters degree in a reputable Higher Education or even want to apply for a scholarship abroad, one of the requirements is good English language skills as evidenced by the TOEFL / IELTS score. The most important aspects of the TOEFL / IELTS are aspects of the ability to hear, speak, read, and write aspects. According to (Broughton, G., Brumfit, C., Flavell, R., Hill, P, and Pincas, 2003), the four skills are the features of language used in communication needs.

As an institutional course that must be programmed by every new student in all study programs at UMI as many as 55 study programs, in general the English material taught is general English whose content is not in accordance with the field of study but rather like stated by Netikšienė (2006) in her research on “Teaching English for Specific Purposes” i.e. leisure activities, more freedom in deviations from the plan, more time for games, more relaxed atmosphere. In addition, only a small portion of the Study Program teaches English based on English Specific Purposes (ESP) such as the Accounting Study Program, Management Study Program, and several other study programs. Therefore, ESP is also very important to be applied to other study programs that have not implemented it, including the Faculty of Agriculture.

Learning English courses at the Faculty of Agriculture at the Indonesian Muslim University all this time, lecturers who teach English take material from overseas English textbooks. The main topic of discussion in the textbooks is mostly about things that are grammatical in nature, such as the use of time forms and examples related to the form of time. In addition, the themes contained in the book are not related to agriculture, so the use of these textbooks as guidebooks creates problems because some teaching materials or learning topics do not fit the needs of students at the Study Program level (the results of the conversation with one of the lecturers at the Faculty of Agriculture). According to (Yaumi, 2018), ESP must be centered on linguistic forms that are appropriate to specific activities and scientific fields and occupations, for example, the Management Study Program requires English language teaching materials related to management economics or English Specific Purposes for Management teaching materials. Likewise for other Study Programs such as Industrial Engineering, Mining, and other study programs that ideally are given English language teaching materials that are suitable for the needs of students

according to their fields and disciplines. This was stated by (Netikšienė, 2006; Liton, 2015) that ESP is a teaching approach to meet the needs of special learners.

It is assumed that the learning outcomes of English courses in each Study Program using textbooks that are adopted from foreign published textbooks that do not fit the needs and fields of study will not be effective. Therefore to obtain good English learning outcomes, namely the ability of students to communicate English both verbally and in writing, it is necessary to have teaching materials that are in accordance with the needs of the scientific field, a study program of which is English Agriculture. Looking at the description above, the researcher needs to conduct research and development of learning material for agricultural English language (English Specific Purposes for Agriculture) with the aim of producing agricultural English teaching materials suitable for use by UMI Faculty of Agriculture students and to find out why students study English.

English Specific Purposes (ESP)

With regard to ESP, a number of statements have been stated by various writers. Day, J. and Krzanowski, M. (2011), for example, explains that ESP involves teaching and learning the specific skills and language needed by particular learners for a particular purpose. Likewise, (Basturkmen, 2010) states that ESP is a tool for communication with an essential subcomponent of language teaching, with its own approaches to curriculum development, material design, pedagogy, testing, and research. Basturkmen goes on to say (as cited in Dudley-Evans and St John, 1998) that The ESP always retains its emphasis on practical outcomes with needs analysis, text analysis, and preparing learners to communicate effectively in the tasks prescribed by their study or work situation. In addition, he further explains (as cited in Holme, 1996) that The ESP process of specialization should not result in the complete separation of one part of the language from another.

There has been a plethora of research about ESP. According to Liton (2015), teaching English in context related to students' skill need for their job in real work situations, ESP has always been with needs analysis and preparing learners to communicate effectively in the tasks prescribed by their field of study or work situation. He further points out (as cited in Hutchinson and Waters, 1987) ESP as an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning. The first step according to Robertson, P. Cheng (as cited in At-Tamimi, 2010) in designing the ESP syllabus is students' need.

English Teaching Materials

To improve language knowledge and experience, teaching materials refer to everything that is used by lecturers or students to facilitate language learning. The teaching materials include all forms used to help lecturers in carrying out teaching and learning activities in the classroom. According to Tomlinson (2008), teaching material is a term used for everything that is used by teachers or students to facilitate language learning. Materials can be recorded tapes, videos, compact discs (CDs) - read-only memory (ROM), dictionaries, grammar books, readers, workbooks or exercise photocopies. It can also be in the form of newspapers, photos, direct conversations by inviting native speakers,

instructions given by lecturers, written assignments on cards or discussions between students. In addition, teaching materials can be in the form of linguistics, visuals, hearing aids or aesthetics which can then be displayed in printed form, through live performances or displays can also be on tape, digital video, and internet. The teaching material itself according to Dick, W., Carey, L., and Carey (2015) is a set of teaching materials that are arranged systematically, displaying a complete figure of competencies that will be mastered by students in learning activities.

Development of Teaching Materials.

Development of teaching materials based on Hutchinson and Water's concept. According to (Hutchinson and Waters (1991), ESP development consists of four steps, namely (1) ESP designs teaching materials based on learner's needs, (2) designs teaching materials based on how to describe language, learning models, and needs analysis, (3) adopts ESP based on syllabus design, material evaluation, design material, and methods, (4) the role of the teacher includes orientation and resources. Besides, Dick, W., Carey, L. and Carey (2015) provide a concept that needs to be considered in the development of the model, namely paying attention to the desired learning motivation, the suitability of the material provided, following a correct sequence, containing the information needed, and practice, can provide feedback, available tests in accordance with the material provided, available instructions for follow-up or general progress of learning, available instructions for students for the stages of activities carried out, and can be remembered and transferred. Then, Nunan (2001) specifically stated that there are several principles and criteria in developing teaching materials. These criteria are as follows: a. teaching material must have a clear relationship with the curriculum used, b. teaching material must be authentic in relation to the text, c. teaching material must encourage and foster interaction, d. the material must provide opportunities for learners to focus on the formal aspects of language, e. Teaching materials encourage learners to develop learning skills, and f. teaching material must encourage learners to apply their skills in the real world where they work.

In the context of learners according to McDonough, J., Shaw, C., and Masuhara (2013) things that must be considered include the following: age, interests and needs, level of English proficiency, aptitude, mother tongue, educational and academic background, learning attitudes and towards learning, motivation, reasons for learning, learning styles, and personality in learning. From the description above, there are several main principles that are indicators that must be considered in developing teaching materials. These indicators include: a) learners, b) learning process, c) language, d) layout and artist, e) type of material and f) activity or types of activities, g) feedback and evaluation, h) context social, i) and instructors. From the nine indicators, it can be further elaborated into more concrete and operational sub-indicators in implementing the development of teaching materials. For example, in the learner indicator, the instructional materials developer must pay attention to age, initial ability, according to the learner's needs. From the indicators of material for teaching materials, for example, includes authenticity, variety and material must provide reciprocal space.

METHOD

This study aims to determine the topics of agricultural English teaching materials needed by students of the Faculty of Agriculture's Agrotechnology Study Program and to discover what their goals are in learning English. Thus, the research addresses the following questions:

1. What are Agricultural English teaching materials needed by the students of Agrotechnology Study Program of the Faculty of Agriculture?
2. What are the purposes of students in learning English?

Sources of data from this study are students of the Agrotechnology Study Program, Faculty of Agriculture, 2017-2018 academic year consisting of 50 people. Agrotechnology Study Program provides four years of instruction that qualifies students to graduate with an S.P. Degree in Agriculture. Then the data collection technique uses a checklist to obtain the topics of teaching materials needed by students and the purpose of students in learning English.

This research is research and development, namely research and development based on the development of models where research findings are used to design new products and procedures, then systematically field-tested, evaluated, and refined to meet the specified criteria. According to Gall, Gall, & Borg (2003), research and development is an industry-based development model in which the findings of the research are used to design new products and procedures, which then are systematically field-tested, evaluated, and refined until they meet specified criteria of effectiveness, quality, or similar standards. This is in line with the development of a general model of solving education problems proposed by Akker, J., Branch, R., Gustafson, K., Nieveen, N., and Plomp (1999), which includes the following steps, namely: (1) initial investigation, (2) design, (3) realization / construction, (4) test, evaluation, and revision, and (5) implementation.

FINDINGS AND DISCUSSION

Students' need for the teaching materials on ESP for Agriculture

From the data collected through questionnaires obtained an overview of the English Agricultural teaching materials which are presented as follows:

Table 1 Students' need for the teaching materials of Agricultural English (N=50)

No	Topics	Very Needed	Needed	Less Needed	Not Needed	Classification
1	Rice	(50%)	(15%)	(10%)		
2	Tomato	(50%)	(25%)	(5%)		
3	Chili	(50%)	(30%)	-	-	
4	Red onion	(50%)	(20%)	-	(5%)	

5	eggplant	(50%)	(25%)	(15%)	(5%)
6	Papaya	(45%)	(25%)	(5%)	-
7	Rambutan	(45%)	(20%)	-	(10%)
8	Coconut	(45%)	(30%)	(10%)	(10%)
9	Coffee	(45%)	(20%)	(5%)	-
10	Soil	(45%)	(10%)	(15%)	-
11	Pests and Diseases	(45%)	(20%)	(15%)	-
12	Seed	(45%)	(25%)	(10%)	-

Based on the students' responses in the table above, 12 out of 42 topics are required for the design of the English Specific Purposes for Agriculture. The topics are: (1) Rice (50%) is very needed; (2) Tomato (50%) is very needed; (3) Chili (50%) is very needed; (4) Red onion (50%) is very needed; (5) eggplant (50%) is very needed; (6) Papaya (45%) is very needed; (7) Rambutan (45%) is very needed; (8) Coconut (45%) is very needed; (9) Coffee (45%) is very needed; (10) Soil (45%) is very needed; (11) Pests and Diseases (45%) is very needed; (12) Seed (45%) is very needed.

To expand the topics needed by the students, it was also asked for the students' advice about the topics they need to put forward in the design of the ESP. The suggestions are as follows: (1) Daily activities, (2) Past experience, (3) Culture, (4) Education, (5) Government, (6) Hometown, (7) Psychology, (8) Pet, and (9) Movie.

Based on the list of topics mentioned above, the topics presented and suggested by the students, for the design of the ESP with the following unit composition: (1) Rice (2) Tomato (3) Chili (4) Red onion (5) Eggplant (6) Papaya (7) Rambutan (8) Coconut (9) Coffee (10) Soil (11) Pests and Disease (12) Seed.

The purpose of students learning English

Based on the data obtained through questionnaires, the full objectives of students learning English are presented as follows:

Table 2 The purpose of students learning English (N=50)

Skills	Listening (%)	Writing (%)	Speaking (%)	Reading (%)
Learning objectives				
working world	4 (8%)	22 (44%)	45 (90%)	2 (4%)

academic field	5 (10%)	14 (28%)	7 (14%)	43 (86%)
----------------	------------	-------------	------------	-------------

The table above shows that the goal of learning English in anticipation of the world of work, 45 students or (90%) place the increase in communication skills as the first choice, then followed by an increase in writing skills by 22 students or (44%), then listening as many as 4 students or (8%), and the last 2 students or (4%) chose to improve reading and grammar.

Communication skills as the first most choice in learning English, and followed by the second most writing skills in learning English because of both language skills such as the recognition of students that when interviewing to get a job in large companies that communication skills are first used then followed by writing. Then the other two skills, listening and reading are not very important, this is indicated by a very small percentage of choices.

In the academic field, it can be seen that reading ability and writing ability are given top priority, each of 43 respondents (86%) and 14 respondents (28%). While the other two skills, listening and speaking were as many as 5 respondents or (10%) and 7 respondents or (14%). To prepare yourself in the academic field both for completing a bachelor's degree and for continuing your studies (S2), the design of English can be directed at the English Specific Purposes for Agriculture to equip students with English language skills in completing coursework.

From these priority scales, it can be concluded that their purpose in learning English is to (1) prepare themselves to enter the workforce (English for Occupational Purposes) which must be supported by adequate communication skills; and (2) prepare themselves in the academic field (English for Academic Purposes) which must be supported by Reading and Writing skills.

Discussion

Recommended English Learning

In designing English teaching with the English for Specific Purposes (ESP) approach all aspects of need must be considered carefully. However, in the design of learning programs, all aspects of these needs do not have to be forced to be fulfilled, especially if there are too many variations in the needs and desires of heterogeneous individuals. Meeting needs in conditions like this will produce learning designs that are unclear and difficult to apply in the teaching and learning process. In conditions like this, the learning designer must be able to formulate the dominant needs of a group of learners so that a design that can be accepted by all groups will be produced.

From the results of the analysis of English language needs of upper semester students (seniors), the Agrotechnology Study Program found a variety of needs between one student and another student who often encountered conflicts between needs. Based on the needs analysis above, in general, some conclusions can be drawn:

Student English Language Ability. From the results of the placement test, the English language proficiency of students of the Agrotechnology Study Program is the

average at the Pre-Intermediate level with an average value of 400 in the Placement Test using TOEFL prediction. This means that students have sufficient basic skills to enter the world of ESP according to their needs.

The Purpose of Learning English. The majority of the goals of students learning English can be categorized into two major groups, namely to anticipate competition in the workplace where the ability to communicate both oral and written is needed and to prepare themselves in the academic field both to complete S1 (undergraduate degree) and to continue their studies S2 (master degree).

Thus, the design of English can be directed at the English for Occupational Purposes (EOP) to prepare students to enter the workforce and English for Academic Purposes (EAP) to equip students with English language skills in completing coursework.

Important macro skills are developed. In line with their goal of learning English to enter the world of work, students place the importance of improving speaking skills as a top priority in learning English, which is followed by increasing other skills such as writing, reading, and listening.

Based on the purpose of learning English, the type of ESP that can be developed is to increase the ability of English to enter the workforce or English for Occupational Purposes (EOP) and increase English language skills to prepare themselves to enter the academic world, such as to help complete coursework. For EOP, the teaching program is more geared towards preparing for a job (English for Jobs), which is about ways to make a job application and curriculum vitae in English, interview techniques, and other aspects of the language related to applying for a job. As for EAP, it is more directed at mastering in the field of reading and writing related to agriculture.

CONCLUSION

Regarding the students' responses, 12 out of 42 topics are required for the design of the English Specific Purposes for Agriculture. The topics are: (1) Rice (50%) is very needed; (2) Tomato (50%) is very needed; (3) Chili (50%) is very needed; (4) Red onion (50%) is very needed; (5) eggplant (50%) is very needed; (6) Papaya (45%) is very needed; (7) Rambutan (45%) is very needed; (8) Coconut (45%) is very needed; (9) Coffee (45%) is very needed; (10) Soil (45%) is very needed; (11) Pests and Diseases (45%) is very needed; (12) Seed (45%) is very needed.

The goals of students learning English can be categorized into two major groups, namely to anticipate competition in the workplace where the ability to communicate both oral and written is needed and to prepare themselves in the academic field both to complete S1 and to continue their studies (S2). Thus, the design of English can be directed at the English for Occupational Purposes (EOP) to prepare students to enter the workforce and English for Academic Purposes (EAP) to equip students with English language skills in completing coursework. In line with their goal of learning English to enter the world of work, students place the importance of improving speaking skills as a top priority in learning English, which is followed by increasing other skills such as writing, reading, and listening.

REFERENCES

- Akker, J., Branch, R., Gustafson, K., Nieveen, N., and Plomp, T. (1999). *Design Approaches and Tools in Educational and Training*. Michigan: Springer. <https://doi.org/10.1007/s00477-014-0937-9>
- Basturkmen, H. (2010). *Developing Courses in English for Specific Purposes*. New York: Palgrave Macmillan.
- Broughton, G., Brumfit, C., Flavell, R., Hill, P, and Pincas, A. (2003). *Teaching English as a Foreign Language*. London: Routledge.
- Day, J. and Krzanowski, M. (2011). *Teaching English for Specific Purposes : An Introduction*. Cambridge University Press.
- Dick, W., Carey, L. and Carey, J. O. (2015). *The Systematic Design of Instruction* (Vol. 91). New York: Pearson.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2003). *Educational Research: An introduction*. New York: Pearson Education. Retrieved from <http://psycnet.apa.org/psycinfo/1996-97171-000>
- Hutchinson, T. and Waters, A. (1991). *English for Specific Purposes: A learnig-centred approach*. New Jersey: Cambridge University Press. [https://doi.org/10.1016/0346-251X\(87\)90056-X](https://doi.org/10.1016/0346-251X(87)90056-X)
- Kesowo, B. (2003). Undang-Undang RI No 20 Tahun 2003 Tentang Sistem Pendidikan Nasional. Jakarta: Sekretaris Negara Republik Indonesia.
- Liton, H. A. (2015). ESP Learners ' Needs Related Learning for the Workplace : A Pragmatic Study for Business School, 8(2).
- McDonough, J., Shaw, C., and Masuhara, H. (2013). *Materials and Methods in ELT*. Malden: John Wiley & Sons, Inc.
- Netikšienė, N. (2006). Teaching english for specific purposes, (4), 80–82.
- Nunan, D. (2001). *Designing Tasks for the Communicative Classroom*. Cambridge: The University Press.
- Robertson, P. Cheng, W. (2010). *The Asian ESP Journal* (Vol. 6).
- Tomlinson, B. (2008). *English Language Learning Materials*. (Brian Tomlison, Ed.) (Vol. 28). New York. <https://doi.org/10.16136/j.joel.2017.11.0033>
- Yaumi, M. (2018). Pengembangan Bahan Ajar English for Specific Purpose Berbasis TIK, (ESP), 1–17. <https://doi.org/10.24252/lp.2012v15n2a2>