

Toward the Realization of ESP (English for Specific Purposes) for Students in the Agriculture Department

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ABSTRACT

The purpose of this study is to investigate the present state of English education for agriculture students in order to seek more effective ways to teach English specific to their major. A needs analysis was conducted by (a) examining the curriculum of the agriculture department, (b) interviewing teachers, and (c) giving questionnaires to the students. As a result, several causes were found out. One of them was that general English courses taken by 1st and 2nd year students were of little use when they started reading academic journals and books specific to their major. The students have a desire to learn English useful for reading books in their major field. Also, the majority of students desire to learn English conversation which is more practical than simply translating a text.

Introduction

This paper focuses on research into the English education curriculum in the agriculture department at a four-year university (hereafter K University) in Japan. The research into the English education of the agriculture department was triggered by one of the researchers in the agriculture department, who complained of students' inability to read academic journals. According to the researcher, their English level is declining year by year.

There are many international symposiums and academic associations on various fields of agriculture worldwide. Also, many overseas students, especially from Asian countries, come to this university. In view of this, people in agricultural fields should be able to communicate internationally to exchange technology and know-how with people from other countries. To fulfill this task, English is necessary as a tool for communication both

inside and, especially, outside Japan. However, the present English education system of K University seems to go against such internationalization. To investigate the cause of this tendency and find the real needs of the students, a needs analysis was conducted by the researchers concerned with the future of the agriculture students.

Needs Analysis

Conducting needs analysis (also called needs assessment) is prerequisite to find needs of a particular group of students and to develop a curriculum that will meet the learning needs of the students (e.g., Brown, 1995; White, 1988). Richards, Platt, and Weber (1985) defined needs assessment as:

the process of determining the needs for which a learner or group of learners requires a language and arranging the needs according to priorities. Needs assessment makes use of both subjective and objective information (e.g., data from questionnaires, tests, interviews, observation). (p. 189)

Referring to their definition, a needs analysis was conducted in the following order: (a) examining existing documents, (b) interviewing teachers, and (c) giving questionnaires to the students.

Existing Documents

The needs analysis started with collecting as many related documents as possible. These documents would help the researchers understand the present English language curriculum of the agriculture department. University handbooks and course syllabuses published in the past several years were helpful in finding out (a) how many and what kind of English courses students are required to take; (b) what the purposes of these courses are; and (c) whether there was any curriculum change recently.

According to the university handbooks, in addition to the Agriculture Department, there are four other departments at K University:

Engineering Department, Economic Department, Social Welfare Department, and General Life Science Department. In total, there are about 4,500 students in the university. Of these, about 800 are agriculture students. The course syllabuses in the agriculture department explain that students are required to take four general English courses: General English I and English LL in the first year and General English II-a and -b in the second year. All these general English courses are offered by the General Life Science department, and are taught by EFL teachers. In other words, freshmen and sophomores in the agriculture department go to the buildings of the General Life Science department to take these courses. This is common in many universities since it is financially impossible for a mid-sized university to employ teachers who teach liberal arts in each department. Thus, each department offers necessary liberal arts courses to other departments.

From the third year, students focus on one of the following majors: Plant Science (which used to be called Horticultural Science and Agronomy until 1993), Regional Environment Science (which used to be called Agricultural Engineering), Applied Biochemistry, and Veterinary Science. In each major, there is one English course called 'Reading Foreign Books' which requires students to read English books or academic journals specific to that major. According to the course syllabus in 1993, the Reading Foreign Books course of the Plant Science major states that students read English books related to their field of study, learn technical terms, and practice how to write a paper or a report in English. In the fourth year, students take a seminar in their major and have to read English academic research journals.

However, the collected documents provided us with only general information about the present English education system at the university; that is, formal information which is open to the public. The formal information usually sounds good but does not reveal real problems. Thus, more informal information is necessary to identify specific problems or real needs of the students at the university. The importance of collecting informal information is emphasized by many researchers (e.g., Brown, 1995;

Holliday, 1992; White 1988). White (1988) claims that an information-gathering stage is necessary before defining goals of curriculum renewal and that the most important source of information should be concerned with skills and expertise within the group. Therefore, to obtain informal information, interviewing inside people and surveying students would be necessary.

Interviewing Teachers

The most useful information source is teachers working in the agriculture department and teachers teaching general English courses, because they are insiders and know a great deal about actual situation of the students and the university. Two of the researchers, teachers in the agriculture department of this university, provided a lot of useful information. Also, two other teachers were interviewed in a very informal manner by the researchers. Those two teachers also complained about students' inadequate reading skills in spite of the fact that they had taken general English courses twice a week for the past two years. According to the teachers, most of the students can read academic journals only by translating them into Japanese. Thus, in Reading Foreign Books or in their seminar, they require students to read a book or a research journal and report with a Japanese translation of the content to the class members. Referring to other teachers, one of the teachers reported that some teachers require each student to submit an exact translation of a research article assigned. Thus, the students must spend a great amount of time and energy in translating a several-page research article word by word.

Three years ago, the curriculum of the university was revised. One of the revisions related to the English curriculum is that the number of credits necessary for graduation was reduced, so that present third year students take only one English course called Reading Foreign Books. Before the revision, third-year students had to take two English courses such as Reading Foreign Books and a seminar-type course. The teachers feel that students should have more opportunities to read articles from English journals and discuss them, but considering the present curriculum and the

students' reading ability, the teachers cannot expect more than translating a several-page English article.

Unfortunately, the authors could not interview any English teachers who are in charge of General English courses; thus, whether they have understood the real needs of the agriculture students is not known. Finally, what do students think about the present English education at this university? To find out the students' opinion on a large scale, a questionnaire would be a good tool. The following sections will discuss the questionnaire given to students.

Method of the Questionnaire

The usefulness of questionnaires was discussed by Brown (1995) as follows:

Sometimes interviews and meetings reveal issues and questions that need to be pursued on a broader scale. Written questionnaires can prove helpful in this type of situation because questionnaires are more efficient for gathering information on a large scale than are many of the other procedures I have discussed. (p. 50)

Thus, a questionnaire is very efficient in gathering information about students' needs on a large scale. Also, if the questions of the questionnaire are carefully designed, it is easy to code, analyze, and interpret the results.

Since the problem of the English education was gradually becoming clearer, the focus of the questions for the questionnaire was tighter. The questionnaire (See Appendix) consisted of, first, bio-data surveys for individual background information; next, a closed-response opinion survey (Q1 to 7, and Q10); self-ratings (Q8 and 9) requiring individuals to rate their own abilities; and lastly, an open-response opinion survey (Q11) designed to uncover students' honest opinions and attitudes.

The questionnaire was given to 58 students of different classes by three teachers at the end of the first semester in 1996. Since students had

already started summer vacation, we could not get as many students as we had originally planned. The students who answered the questionnaire were divided into two groups: one is second-year students who have taken only general English courses ($n=44$); the other group is third-year students or above who had already started learning English specific to their majors ($n=14$) (see Table 1). Since all the students we could survey were majoring in either Horticultural Science and Agronomy or Agricultural Engineering, we were obliged to focus on students in these two majors.

Table 1. Bio-data of the agriculture students

		Group 1	Group 2
Grade	2nd year	44	
	3rd year		1
	4th year		5
	Graduate		7
	Other (an alumna)		1
Total		44	14
Gender	Male	22 (50%)	11 (78.6 %)
	Female	22 (50%)	3 (21.4 %)
Academic major	Horticultural Science and	38 (86.4 %)	6 (42.9 %)
	Agronomy	5 (13.6 %)	8 (57.1 %)
	Agricultural Engineering		

Results of the Questionnaire

All 44 second-year students in Group 1 had completed required general English courses, but only two students had taken English Conversation, which is an elective subject (Table 2). According to the university handbooks, any student from freshmen to seniors can take an English Conversation course. However, responses to Q11 (Table 6) revealed that not all the students can take this course. Six students (13.6%) hope that anybody can take the English Conversation course. However, in reality, though they may want to learn English conversation, they cannot because the scheduling of a required subject overlaps with the English Conversation

course. Closer investigation by interviews and existing documents revealed that there were only two English conversation classes available for agriculture students. Thus, some students who registered late for this course could not take it since the capacity of the two conversation classes was quite limited. In Group 2, no student took English Conversation. It may be because the elective conversation course is for beginners; in other words, the course aims at the first-year students only, though technically third- and fourth-year students can take it. One student in Group 2 mentions that he wanted to learn English conversation more in order to be able to talk with foreign students. Perhaps, he could not take it because of the limited capacity of the courses, and the general English courses provided little opportunity to speak.

Table 2. English courses taken

		Group 1	Group 2
1st year	General English I	44 (100 %)	14 (100 %)
	English 1 - LL	44 (100 %)	14 (100 %)
	English Conversation	2 (4.5%)	0 (0 %)
2nd year	General English IIa	44 (100 %)	14 (100 %)
	General English IIb	44 (100 %)	14 (100 %)
3rd year	Reading Foreign Books		14 (100 %)
4th year	Seminar		14 (100 %)

Responses to Q1 reveal that general English courses do not relate to subjects of their major (Table 3). If we consider General English I and General English IIa as examples, 16 students (36.4%) out of 44 claimed that General English I does not relate to their majors, 6 students (13.6%) answered that the course is slightly related, and no student believed that it is closely related. As for General English IIa, 11 students (25.0%) claimed that the course is not related to their major at all, 7 students (15.9%) answered that it is slightly related, only 1 student answered that it relates to some extent, and no student believed that it is closely related.

Answers from students of Group 2 are similar to students of Group

1. Six students (42.9%) claimed that General English I does not relate at all, 4 (28.6%) answered that it is slightly related, and only 3 (21.4%) answered that it is related to some extent, and no student believed it is closely related. As for General English IIa, 3 students (21.4%) claimed it is not related at all, 6 (42.9%) answered it is slightly related, 3 (21.4%) answered it is related to some extent, and no student believed that it is closely related. Thus, generally speaking, it can be concluded that general English courses are not related to students' specific agriculture fields. The major reason is that these subjects are taught by teachers of English and they may not realize the needs of agriculture students. This tendency is typical of Japanese universities and often pointed out by many ESP (English for Specific Purposes) teachers. Robinson (1980) points out that one of the problems of EST (English for Science and Technology) teaching is that teachers of English do not know or understand the concepts of science, and they may not be familiar with the special lexical and structural features of scientific English. With these problems, it would be very difficult to teach something related to agriculture and its technical terms unless they have an appropriate textbook to teach with.

Q2 through Q7 as shown in Table 4 were only answered by students in Group 2 since they relate to "Reading Foreign Books" and similar courses which are taken from the third year. Q2 is about how much these general English courses contribute to students' ability to read English books or journals specific to their majors. Nine out of 14 students (64.3%) think that these courses either do not help at all or help little. Only 5 (35.7%) feel they help to some extent. Thus, even though the students learned English in General English courses twice a week for two years, these subjects do not seem to help much when they have to read academic journals in the area of their studies. Almost all the students feel reading English books specific to their majors is difficult as indicated by responses to Q4. The major reasons for this difficulty are shown in responses to Q5 as follows: (a) their lack of English vocabulary (71.4%); (b) their lack of knowledge of technical terms (42.9%); (c) their lack of knowledge of their major (28.6%); (d) their unfamiliarity with English (21.4%); and (e)

Table 3. Q1. To what extent did the general English courses you took relate to the subject of your major?

Course	Option	Group 1	Group 2
General English 1	1. not at all	16 (36.4 %)	6 (42.9 %)
	2. slightly	6 (13.6 %)	4 (28.6 %)
	3. to some extent	0 (0 %)	3 (21.4 %)
	4. closely	0 (0 %)	0 (0 %)
	Undeclared	22 (50%)	1 (7.1 %)
	Mean (SD)	1.3 (.45)	1.8 (.83)
English I-LL	1. not at all	16 (36.4 %)	8 (57 %)
	2. slightly	6 (13.6 %)	5 (35.7 %)
	3. to some extent	0 (0 %)	1 (7.1 %)
	4. closely	0 (0 %)	0 (0 %)
	Undeclared	22 (50 %)	0 (0 %)
	Mean (SD)	1.3 (.45)	1.5 (.65)
English Conversation	1. not at all	2 (100 %)	
	2. slightly	0 (0 %)	
	3. to some extent	0 (0 %)	
	4. closely	0 (0 %)	
	Undeclared	0 (0 %)	
	Mean (SD)	1.5 (.61)	2.0 (.74)
General English IIa	1. not at all	11 (25.0 %)	3 (21.4 %)
	2. slightly	7 (15.9 %)	6 (42.9 %)
	3. to some extent	1 (2.3 %)	3 (21.4 %)
	4. closely	0 (0 %)	0 (0 %)
	Undeclared	25 (56.8 %)	2 (14.3 %)
	Mean (SD)	1.5 (.61)	2.0 (.74)
General English IIb	1. not at all	10 (22.7 %)	4 (28.6 %)
	2. slightly	5 (11.4 %)	6 (42.9 %)
	3. to some extent	3 (6.8 %)	2 (14.3 %)
	4. closely	0 (0 %)	0 (0 %)
	Undeclared	26 (59.1 %)	2 (14.3 %)
	Mean (SD)	1.6 (.78)	1.7 (.67)

difficult English structures (21.4%). From these results, it is found that the majority of the students think that the major causes of their inability to read English journals is their inadequate vocabulary knowledge including technical terms. Among the major reasons, reasons 2, 3, and, perhaps, 5 are not addressed by the present general English courses since these courses do not relate to their majors as indicated in Q1 and Q2.

Then, how much do they read English books or journals specific to their majors? Responses to Q3 and Q7 revealed that, on the average, the students read 1.6 pages in a lesson in a "Reading Foreign Books" course, and in their English seminars, they read 3.3 research articles in a year (or 2.1 articles in the first semester). Thus, most students read just three or four several-page-length articles in a year. Each student takes turns to report on the content of the article assigned in class in Japanese. So, while one student is assigned to report on an article, the rest of the class members do not read the article beforehand but just listen to his/her report. Each student only reads articles that he/she is assigned to report on in the class. Another reason why they read so little is that some teachers believe that students could understand English texts only by translating it into Japanese, so those teachers require a complete Japanese version of an English article from students.

Thus, the students spend much time and energy in translating an English article into Japanese, which seems to be an inefficient approach. In view of this problematic situation, direct understanding of English text, not via translation, seems to be an urgent necessity for students in order to increase the amount of reading. Also, the strong tradition of Grammar-Translation Method should be abolished by professors. Noguchi (1993) also points out the same problem in the language teaching conducted in a science and engineering faculty. However, by citing Day (1992), Noguchi (1993) states that the case is not as hopeless as it may seem:

... as expressions and language use common to various scientific disciplines can be identified. For example, the research paper published in

Table 4. Questions only for Group 2

Q2. How much do you think the general English courses you have taken in the 1st and 2nd year contribute to reading English books or research articles specific to your major?	1. not at all	2 (14.3 %)
	2. little	7 (50 %)
	3. to some extent	5 (35.7%)
	4. very much	0 (0 %)
	Mean (SD)	2.2 (.70)
Q3. How many pages in a lesson did/do you read in an English book on your major?	Pages	0.5 to 3.5
	Undeclared	3 (21.4 %)
	Mean (SD)	1.6 (1.05)
Q4. How difficult do you find reading English books?	1. easy	0 (0 %)
	2. moderate	2 (14.3 %)
	3. difficult	10 (71.4 %)
	4. very difficult	2 (14.3 %)
	Mean (SD)	3 (.55)
Q5. If you answer 3 or 4 in Q4, choose the reasons below (you may choose more than one).	Because of:	
	1. my lack of English vocabulary	10 (71.4 %)
	2. my lack of knowledge of technical terms	6 (42.9 %)
	3. my lack of knowledge of the field	4 (28.6 %)
	4. my unfamiliarity with English	3 (21.4 %)
	5. difficult English structures	3 (21.4 %)
	6. other reasons	0 (0 %)
Q6. In the seminar you were /are attending, were /are you supposed to summarize English research articles to the class?	Yes	14 (100 %)
	No	0 (0 %)
Q7. To those who answer Yes in Q6, how many English articles did you read a year(or did you read from this April)?	In a year (n=9)	2 to 5.5 articles
	Mean (SD)	3.3 (.97)
	From April to July (First semester) (n=9)	2 to 3 articles
	Mean (SD)	2.1 (.33)

an academic journal assumes a similar format and uses similar conventions whether it be in medicine or plant physiology or chemical engineering. The technical terms specific to each field differ but the aim of the research paper is common to all and thus the language features can be identified for teaching.

Therefore, it is not impossible even for general English teachers as well as faculty in each major to instruct students on how to read academic journals without translating word-by-word.

Q8 and Q9 as shown in Table 5 elicit students' self-ratings. Q8 asks about their reading skills, and 38 students (86.4%) in Group 1 rate themselves as low-intermediate, 4 (9.1 %) rate themselves as intermediate, and

Table 5. Questions for students' self-assessment

		Group 1	Group 2
Q8. What do you think of your reading skills in English?	1. Low-intermediate	38 (86.4 %)	9 (64.3 %)
	2. Intermediate	4 (9.1 %)	5 (35.7 %)
	3. High	0 (0 %)	0 (0 %)
	Undeclared	2 (4.5 %)	0 (0 %)
	5. STEP pre-1st level	1 (2.3 %)	0 (0 %)
Q9. How would you rate your English ability?	4. STEP 2nd (junior college) level	14 (31.8 %)	5 (35.7 %)
	3. STEP pre-2nd (high school) level	20 (45.5 %)	6 (42.9 %)
	2. STEP 3rd (junior high school) level	7 (15.9 %)	2 (14.3 %)
	1. less than STEP 3rd level	0 (0 %)	1 (7.1 %)
	Undeclared	2 (4.5 %)	0 (0 %)
	Mean (SD)	3.2 (.74)	3.1 (.92)
Q10. Do you go to a private English language school?	Yes	1 (2.3 %)	0 (0 %)
	No	41 (93.2 %)	14 (100%)
	Undeclared	2 (4.5 %)	0 (0 %)

none rate their reading skills highly. As for Group 2, 9 students (64.3%) rate themselves as low-intermediate, 5 (35.7%) rate themselves as intermediate, and none of them rate themselves highly, either. In terms of overall English ability as covered by Q9, students rate their ability according to STEP's (the Society for Testing English Proficiency, Inc.) test which measures English proficiency, since the test is well known and taken by many students. Nearly half of the students (45.5%) in Group 1 rate themselves at the STEP pre-2nd (high school) level and 14 (31.8%) rate themselves at the STEP 2nd (junior college) level. Students in Group 2 also evaluated themselves to be almost at the same level as the second-year students. Thus, the majority of the students think their English level is not so high in spite of taking general English courses for two years.

Q11, the last question as shown in Table 6, is an open question asking if students have any request or desire with regard to English courses. There is one similarity and one distinct difference between Groups 1 and 2. The similarity is that students in both groups (stating the opinions 1, 2, 3, and 4 in Group 1 and opinions 3 and 4 in Group 2) hope to learn English conversation, but the courses do not seem to emphasize speaking much. In other words, most English courses they have taken were conducted by the Grammar-Translation Method and the students seem to be dissatisfied. This is clearly indicated by statements 3 and 4 in Group 1; that is, three students mention that they do not want to have read-and-translate lessons any more and one states that teachers should explain the text rather than have them translate it. However, their desire to learn English conversation does not seem to be very strong because only one student among Groups 1 and 2 is learning English conversation at a private language school. The distinct difference in opinions between the two groups is that 80% of the students (stating opinions 1, 2, and 3) in group 2 wish to learn English specific to their majors in general English courses. Perhaps when they took a "Reading Foreign Books" course, they realized that they should have studied to prepare for reading journals and books related to their fields in their first or second year.

Table 6. Q11. State your opinion if you have any request or desire regarding English courses?

Group 1	Group 2
1. I wish anybody could take the English Conversation course. -- 6 (13.6%)	1. I would like to learn English related or useful to my major in the general English courses. -- 7 (50%)
2. The goal of the general English courses should be to enable students to speak English. -- 1 (2.3%)	2. I would like to be able to read more English research articles and journals related to my major and discuss them since I am a university student. -- 1 (7.1%)
3. I do not like read-and-translate lessons any more. -- 3 (6.8%)	3. The purpose of general English courses should be to enable students either to communicate in English or to prepare themselves for their specific majors such as learning technical terms. -- 2 (14.3%)
4. Teachers should explain the text besides translating it. -- 1(2.3%)	4. I wanted to learn English conversation more in order to be able to talk with foreign students. -- 1 (7.1%)
5. Teachers should be more motivated and generous. -- 1 (2.3%)	Undeclared -- 3 (21.4%)
6. English lessons should be more fun. -- 3 (6.8%)	
7. Textbooks are boring. -- 2 (4.5%)	
8. I do not want to take general English courses. -- 2 (4.5%)	
9. One story or one chapter should be covered in a lesson. I do not like to finish a story halfway. -- 1 (2.3%)	
10. The English courses should be directly related to our majors.-- 1 (2.3%)	
Undeclared -- 23 (52.3%)	

Summary of the Questionnaire

One of the advantages of an open-response question (i.e., Q11) is that we sometimes can get a wide range of possible answers, so that we may get unexpected information from the subjects, which would not be obtained from closed-response questions. In our case, until we read their opinions, we could not understand why so few students take the elective English Conversation course though the curriculum handbooks sound as though any student, from freshmen to seniors, can take it if they want. If this open-typed question had not been included in the questionnaire, we might have falsely understood that the students are not interested in English conversation. However, in fact, many students are interested and do have the desire to practice speaking. Another finding is that students expect something other than the Grammar-Translation Method from English teachers. The most important finding from Q11 is that students need to prepare themselves to be able to read English journals in their field without recourse to translating word by word from first or second year. Otherwise, when they become third-year students, they have substantial difficulty reading those materials.

Possible solutions and Conclusion

The questionnaire revealed that current general English courses do not satisfy students' two needs: a desire to learn English conversation and a need to improve reading skills to be able to read academic journals without translating into Japanese. Considering the students' needs and thinking about what level the teacher wants them to achieve by the end of the 2nd year, teachers should set clear goals. The clearer goals enable the teacher to make it easy to have clearer lesson plans in a general English course.

In terms of the second needs, as mentioned earlier, because of curriculum change implemented three years ago, one English seminar-type course for third-year students was eliminated. Thus, it is now more difficult for students to receive training in reading academic journals since they have only the "Reading Foreign Books" course once a week. Since the curriculum cannot be easily changed, general English teachers are obliged to deal

with this problem. However, it would be difficult for general English teachers to teach something related to agriculture and its technical terms. By citing Robinson (1980), Noguchi (1993) points out problems that EST (English for science and technology) teaching is facing today as follows:

1. Teachers who have been trained in general English courses have a negative attitude toward teaching EST -- 'a crisis of confidence' and tend to treat a scientific text like a literary one.
2. Teachers of English do not know or understand the concepts of science.
3. Teachers may not be familiar with the special lexical and structural features of scientific English. . . (p. 85)

Perhaps because of these problems, relatively few ESP classes are offered to 1st and 2nd year students. However, these ESP courses could be provided for freshmen and sophomores with the co-operation of English and agriculture teachers. This idea has already been adopted in other fields at some universities. For example, according to Tanaka (1994), Tottori University has introduced ESP (English for Specific Purposes) courses mainly to second-year students with the co-operation of English and specific major teachers. Also, students of Kobe University must take two English credits out of six from English courses related to their specific fields during their first and second years.

Another way to cope with this situation is to use ESP textbooks for agriculture students. However, so far there are no such appropriate textbooks that general English teachers or teachers in agriculture departments can use, though the number of ESP textbooks for such subjects as economics, engineering, chemistry, medicine, and science has been gradually increasing. Perhaps this is because the number of agriculture students is far smaller than the number of students specializing in those majors in Japan. Since there is no appropriate textbook available for agriculture students, according to a teacher at Y University, first-year agriculture students at the university learn English related to their field by using one bilingual

guidebook of course descriptions of the university as a whole and one English handbook compiled by the agriculture department. By reading each course explanation in the handbooks, the students learn basic vocabulary and content of each course. Using these brochures as textbooks, freshmen may gain many benefits: (a) they can grasp the whole system of the university; (b) they can learn basic vocabulary related to agriculture; and (c) by reading the content of each course and chair, they can decide their future course of study. Thus, using bilingual guidebooks is a good idea as a first step to learn English related to agriculture.

Toward the current trend of internationalization, many universities as well as the Ministry of Education have realized the importance of ESP. In order to meet the specific language needs and fill a void not adequately covered by any current published textbook, a well-organized textbook for agriculture students must be developed urgently. Also, further curriculum development would be desirable in the future because not only the improvement of the quality of English courses but also the quantity of English study hours greatly influence students' English ability.

Note: This is a full version of the needs analysis. A part of the needs analysis was reported in Hirai, A., Hirai, H., and Mori, G. (1998). Investigation of English Education in an Agriculture Department. *Agriculture Education*, 29 (2), 51-60.

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Appendix

Questionnaire on English Education
for Students in the Agriculture Department

The purpose of this questionnaire is to investigate English education in agriculture departments in Japan. Your honest opinion will contribute to the improvement of English education in the department. Please circle your answer to the following questions.

1. Gender (A. male B. female)
2. Age (A. 18 B. 19 C. 20 D. 21 E. 22 F. 23 G. 24 or more)
3. Grade (A. first year B. second year C. third year D. fourth year
E. graduate F. other)
4. Name of your university ()
5. Your major ()
6. State English courses you have taken so far (and/or are taking).

1st year	1	2
2nd year	3	4
3rd year	5	6
4th year and graduate	7	8

- Q1. To what extent did/do courses above relate to the subject of your study?
- A. closely B. to some extent C. slightly D. not at all
1. (A. closely B. to some extent C. slightly D. not at all)
 2. (A. closely B. to some extent C. slightly D. not at all)
 3. (A. closely B. to some extent C. slightly D. not at all)
 4. (A. closely B. to some extent C. slightly D. not at all)
 5. (A. closely B. to some extent C. slightly D. not at all)
 6. (A. closely B. to some extent C. slightly D. not at all)

To those who have taken (or are taking) an English course specific to your major, please answer Q2 to Q7.

- Q2. How much do you think the English courses you have taken in the 1st and 2nd year contribute to reading books on your major?
(A. very much B. so-so C. little D. not at all)
- Q3. How many pages did (do) you read an English book on your major?
About () pages in a lesson.
- Q4. How difficult do you find reading English books?
(A. very difficult B. difficult C. not so difficult D. easy)
- Q5. To those who answered A or B in Q4, choose the reasons below (you may choose more than one).
A. because of my lack of English vocabulary.
B. because of my lack of knowledge of technical terms
C. because of my lack of knowledge of the field.
D. because of my unfamiliarity with English.
E. because of difficult English structures.
F. because of other reasons ()
- Q6. In the seminar you were (are) attending, were (are) you supposed to summarize English articles to the class?
(A. Yes B. No)
- Q7. To those who answer A in Q6, how many English articles did you read a year
(or did you read from this April)?
About () articles a year
() articles from this April to present
- Q8. What do you think of your reading skill in English?
(A. high B. intermediate C. low-intermediate)
- Q9. How would you rate your English ability?
A. STEP pre-1st level
B. STEP 2nd (junior college) level
C. STEP pre-2nd (high school) level
D. STEP 3rd (junior high school) level
E. less than STEP 3rd level

Q10. Do you go to a private language school?

(A. Yes B. No)

Q11. State your opinion if you have any request or desire regarding English courses at your university.

Thank you for your co-operation.