

DEVELOPING AN ESP SYLLABUS AND INSTRUCTIONAL MATERIALS FOR AGRIBUSINESS STUDENTS: AN R&D STUDY

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ABSTRACT

English instruction in many agricultural higher education programs continues to rely on general English courses that focus primarily on grammar and everyday communication. Such approaches often fail to address the discipline-specific communication needs required in agribusiness education. Although needs analysis has long been recognized as a fundamental component of English for Specific Purposes (ESP), relatively few studies have translated identified needs into systematically designed instructional materials tailored to agricultural contexts. This study aims to develop ESP instructional materials for agribusiness students based on a comprehensive needs analysis. The research employed a Research and Development (R&D) approach guided by the ADDIE model, focusing on the stages of analysis, design, and development. Data were collected through questionnaires administered to 31 seventh-semester agribusiness students and interviews with an English lecturer. The questionnaire used a five-point Likert scale and the data were analyzed using mean scores and percentages. The findings indicate that agribusiness students require English primarily for discipline-specific communication tasks, particularly presenting agricultural topics ($M = 4.30$), participating in discussions ($M = 4.25$), and reporting fieldwork activities ($M = 4.05$). Students also reported difficulties related to limited agricultural vocabulary and low confidence in speaking English. Based on these findings, an ESP syllabus, course plan, and instructional module consisting of fourteen units were developed, integrating agricultural content with communicative learning activities. The study contributes to ESP pedagogy by demonstrating how needs analysis can inform the systematic development of discipline-specific instructional materials in agricultural higher education.

Keywords: *agribusiness education, English for specific purposes, ESP materials design, Needs analysis, Speaking activities*

Introduction

In many higher education contexts, English courses are still commonly designed as general language instruction that emphasizes grammatical structures, general vocabulary, and everyday communication. While such approaches may support basic language proficiency, they often fail to address the discipline-specific communication demands that students encounter within their academic fields. Consequently, students frequently experience difficulties when using English for academic tasks such as presenting subject-specific knowledge, discussing technical issues, and communicating professional ideas related to their disciplines. English for Specific Purposes (ESP) has been widely recognized as an effective approach for addressing this mismatch between general English instruction and

discipline-specific communication needs. ESP focuses on designing language instruction that responds to the linguistic, communicative, and professional requirements of particular academic or occupational communities. Dudley-Evans and St John (1998) describe ESP courses as programs that emphasize specialized language, authentic communication tasks, and learning activities reflecting the contexts in which learners actually use English. Similarly, Hyland (2021) argues that ESP instruction should enable learners to participate effectively in disciplinary discourse communities by developing the communicative competence required in specific academic and professional contexts.

A fundamental principle of ESP course design is the use of needs analysis as the basis for developing instructional materials. Hutchinson and Waters (1987) emphasize that effective ESP

instruction should begin with identifying learners' target needs and learning needs to ensure that language learning is relevant to their academic and professional goals. Basturkmen (2010) further explains that ESP course development typically involves several stages, including needs analysis, syllabus design, materials development, and course evaluation. Through this process, instructional materials can be designed to reflect the communicative practices and discourse conventions of specific disciplinary fields.

Recent studies have highlighted the importance of needs-based ESP instruction in higher education. For example, Flowerdew and Peacock (2022) emphasize that ESP materials should incorporate authentic disciplinary content and communication tasks that mirror real academic and professional interactions. Similarly, Long (2015) argues that language instruction should be derived from learners' real communicative needs rather than predetermined grammatical structures. These perspectives suggest that effective ESP materials development requires not only linguistic considerations but also an understanding of disciplinary communication practices. Despite these theoretical developments, a significant gap remains between ESP theory and instructional practice in many higher education contexts. A large number of ESP studies have focused primarily on identifying students' language learning needs; however, fewer studies have translated these identified needs into systematically designed instructional materials that support discipline-specific communication. As a result, English courses in many academic programs continue to rely on general English textbooks that are not fully aligned with the communicative requirements of specific fields of study.

This issue is particularly evident in agricultural higher education. Agribusiness students are required to engage with English through academic texts, presentations, fieldwork reports, and discussions related to agricultural production and agribusiness management. These activities require not only general English proficiency but also familiarity with discipline-specific vocabulary and communication practices associated with agricultural contexts. However, English instruction in many agricultural programs still relies largely on general English materials that provide limited opportunities for students to develop these specialized communication skills. Preliminary observations conducted at the Faculty of Agriculture at the Catholic University of St. Thomas Medan indicate that the English course currently implemented in the agribusiness

program still relies mainly on grammar-based instruction and general English materials. As a result, students have limited opportunities to practice English in authentic agribusiness communication contexts. Consequently, many students experience difficulties when presenting agricultural topics, participating in discussions related to agribusiness issues, and reporting field-based agricultural activities in English.

Given these challenges, the development of discipline-specific ESP instructional materials becomes essential for supporting agribusiness students' academic communication needs. Designing such materials requires a systematic understanding of students' language learning needs as well as instructional design that integrates disciplinary content with communicative language learning activities. Therefore, this study aims to develop ESP instructional materials for agribusiness students based on the results of a needs analysis conducted among students in the Faculty of Agriculture at the Catholic University of St. Thomas Medan. Specifically, this study addresses the following research question: How can ESP instructional materials be designed to address the English language learning needs of agribusiness students?

Method

This study employed a Research and Development (R&D) design to develop English for Specific Purposes (ESP) instructional materials for agribusiness students. R&D was selected because the purpose of the study was not only to identify students' English learning needs but also to design instructional materials that respond to those needs. Compared with descriptive research designs, which mainly examine existing phenomena, the R&D approach enables researchers to systematically design educational products based on empirical data obtained from learners and instructional contexts. The development procedure in this study followed the ADDIE instructional design model consisting of five stages: Analysis, Design, Development, Implementation, and Evaluation (Branch, 2009). Due to the scope of this study, the research focused on the first three stages of the ADDIE model: analysis, design, and development. These stages were considered sufficient for producing ESP instructional materials grounded in students' learning needs.

The participants of this study were 31 agribusiness students in their seventh semester from the Faculty of Agriculture at the Catholic University of St. Thomas Medan. Seventh-semester students were selected because they have already completed most of their disciplinary

coursework and have substantial exposure to agribusiness concepts, fieldwork activities, and academic presentations related to agriculture. Therefore, they are more capable of identifying the English language skills and communication tasks required in their academic and future professional contexts.

The participants consisted of 18 female students and 13 male students, with English proficiency levels ranging from elementary to intermediate based on their previous English course results. In addition to the student participants, one English lecturer participated in the study through an interview. The lecturer was included because he is the only English lecturer responsible for teaching English courses across the Faculty of Agriculture. Therefore, his insights were considered essential for understanding the existing English curriculum and the challenges encountered in teaching English to agribusiness students. Although the number of participants may limit the generalizability of the findings, the sample was considered appropriate for conducting a needs analysis within a specific educational context, which is consistent with ESP research that focuses on localized instructional design.

Two research instruments were used in this study: a needs analysis questionnaire and a semi-structured interview. The questionnaire was designed to identify students' target needs, learning needs, and present situation in learning English. The questionnaire items were adapted from ESP needs analysis frameworks proposed by Hutchinson and Waters (1987) and Dudley-Evans and St John (1998). To ensure content validity, the questionnaire items were reviewed by an English lecturer with experience in ESP teaching. The validity of the questionnaire was further examined using Pearson Product-Moment correlation, and all questionnaire items were found to be valid with correlation values exceeding the critical value of $r = 0.361$ at the 0.05 significance level. The reliability of the questionnaire was measured using Cronbach's alpha, which yielded a reliability coefficient of $\alpha = 0.87$, indicating high internal consistency.

A semi-structured interview was conducted with the English lecturer to obtain qualitative insights regarding the existing English course, instructional materials used in the program, and the challenges encountered in teaching English to agribusiness students. The interview protocol consisted of several guiding questions related to:

- a) the objectives of the existing English course
- b) teaching materials currently used
- c) students' learning difficulties in English

- d) the relevance of English instruction to agribusiness contexts

The interview was recorded and transcribed for analysis.

The quantitative data obtained from the questionnaire were analyzed using descriptive statistics, particularly mean scores and percentages, to identify the level of students' agreement with each questionnaire item. Although Likert-scale data are ordinal in nature, the use of mean scores for summarizing Likert responses is widely accepted in educational research for interpreting participants' perceptions and preferences. Meanwhile, the qualitative data obtained from the interview were analyzed using thematic analysis, in which key themes related to students' English learning needs and current instructional practices were identified and interpreted. To enhance the credibility of the findings, **data** triangulation was applied by comparing the results obtained from the questionnaire and the interview.

The analysis stage involved conducting a needs analysis using questionnaires and interviews to identify students' target needs, learning needs, and present situation in learning English. In addition, the existing English syllabus used in the agribusiness program was analyzed to identify gaps between the current instructional materials and students' discipline-specific communication needs. Based on the needs analysis results, an ESP syllabus was designed to reflect the communicative needs of agribusiness students. The syllabus included learning objectives, agribusiness-related topics, and communicative language activities designed to support students' academic communication. In the development stage, ESP instructional materials were produced, including lesson plans and learning modules that integrate agribusiness topics with communicative English activities such as discussions, presentations, vocabulary development tasks, and contextual speaking exercises.

Findings and Discussion

The needs analysis aimed to identify the English learning needs of agribusiness students and to examine the gap between students' communicative needs and the existing English teaching practices. The results of the questionnaire indicate that agribusiness students primarily need English for discipline-related communication tasks rather than for general language knowledge. Among the items analyzed, presenting agricultural topics obtained the highest mean score ($M = 4.30$), indicating that students perceive oral presentation skills as particularly important for their academic

development. Students reported that they need English to perform several academic communication tasks related to agribusiness, including: presenting agricultural topics, explaining agricultural production processes, discussing agricultural issues and problems, reporting fieldwork observations. These tasks reflect the communicative demands commonly encountered in agricultural education, where students are required to present field reports, discuss agricultural technologies, and explain farming practices. The needs analysis also revealed that students prefer interactive learning activities, particularly group discussions, presentations, and role-play tasks. These activities received the highest agreement levels among respondents. This finding suggests that students prefer learning environments that allow them to actively use English rather than passively learn grammatical rules. Interactive activities enable students to exchange ideas, practice discipline-specific vocabulary, and develop confidence in communicating about agricultural topics.

Despite recognizing the importance of English communication in agribusiness contexts, students reported several difficulties in learning English. The most frequently reported challenge is limited knowledge of agricultural terminology, which makes it difficult for students to understand agricultural texts and explain agricultural processes in English. Another challenge is low confidence in speaking English, particularly during presentations and discussions. Many students reported that they hesitate to speak because they are afraid of making grammatical mistakes. Interview data from the lecturer confirm these findings. According to the lecturer, students often rely on Indonesian when discussing agricultural topics because they lack appropriate English vocabulary related to agriculture and agribusiness.

One of the most significant findings of this study is the mismatch between students' communicative needs and the existing English teaching practices. Based on the lecturer interview, the English course in the agribusiness program has traditionally been taught using a general English approach, focusing mainly on grammar instruction such as the explanation of tenses and sentence structures. Classroom activities generally involve grammar exercises and written assignments rather than communicative tasks. Although grammatical competence is important, such an approach may not adequately support students in using English for discipline-specific communication. ESP scholars argue that language instruction should be

designed based on learners' target situations, meaning the contexts in which learners will actually use the language. The needs analysis results in this study indicate that agribusiness students require English primarily for communicating agricultural knowledge, including presenting field observations, explaining farming processes, and discussing agricultural problems. Therefore, a grammar-focused teaching approach may not fully address the communicative demands of agribusiness education. An interesting finding in this study is that students strongly prefer communicative learning activities even though their previous English learning experiences were largely grammar-oriented.

One possible explanation is that students are aware of the importance of communication skills in their academic field. Agribusiness education often involves fieldwork, project presentations, and discussions about agricultural issues. As a result, students may naturally expect language learning activities that simulate these real academic tasks. Another possible explanation relates to students' motivation. Communicative activities may be perceived as more meaningful because they allow students to connect English learning with their disciplinary knowledge. However, it is also possible that students' preference for interactive activities reflects a broader shift in language learning expectations among university students, who increasingly expect classroom activities to be collaborative and student-centered.

Based on the results of the needs analysis, this study developed an ESP-based syllabus, course plan (RPS), and instructional module specifically designed for agribusiness students. The developed ESP course focuses on integrating agricultural content with communicative language learning activities. The instructional materials are organized into 14 units, each designed to reflect real communication situations in agribusiness contexts. The units include topics such as: Self-Introduction in Agribusiness Context, Agribusiness Vocabulary, Reading Agricultural Texts, Translating Agricultural Texts, Understanding Agricultural Videos, Listening to Agribusiness Audio, Writing Professional Emails, Agricultural Products, Agricultural Processes, Fieldwork Reporting, Agribusiness Problems and Solutions, Job Interview Simulation, Agribusiness Presentation, Sustainable Agriculture. Each unit integrates discipline-specific vocabulary, speaking activities, and communicative tasks. For example, students practice describing agricultural commodities, explaining farming processes, discussing agricultural

sustainability, reporting fieldwork observations, and presenting agribusiness ideas. The module also includes reading texts related to agricultural production and sustainability issues, allowing students to develop both language skills and disciplinary knowledge simultaneously.

The findings of this study contribute to ongoing discussions in ESP research regarding the relationship between general English instruction and discipline-specific language education. Some scholars argue that students must first develop strong grammatical competence before engaging in specialized communication tasks. However, other ESP researchers emphasize that language learning becomes more meaningful when it is integrated with disciplinary knowledge. The results of this study support the latter perspective. Agribusiness students demonstrate a clear need for English learning activities that are directly related to their field of study. Integrating agricultural content into English instruction can therefore enhance both students' engagement and their ability to communicate disciplinary knowledge. By developing ESP instructional materials based on needs analysis, this study attempts to bridge the gap between general English instruction and the communicative demands of agribusiness education.

Table 1
Students' Target Needs in Using English for Agribusiness Communication

No	Target Communication Task	Mean Score	Percentage	Interpretation
1	Presenting agricultural topics	4.30	86%	Very High
2	Explaining agricultural processes	4.15	83%	Very High
3	Participating in discussions about agriculture	4.10	82%	Very High
4	Reporting fieldwork observations	4.05	81%	Very High

The table shows that agribusiness students prioritize speaking-related academic tasks, particularly presenting agricultural topics and explaining agricultural processes.

Table 2
Students' Preferred Learning Activities in ESP Classes

No	Learning Activity	Mean Score	Percentage	Interpretation
1	Group discussion	4.30	86%	Very High
2	Oral presentation	4.25	85%	Very High
3	Role play	4.05	81%	Very High
4	Listening to agricultural videos	3.90	78%	High

Students show strong preference for interactive and communicative learning activities rather than traditional lecture-based instruction.

Table 3
Students' Learning Difficulties in Learning English

No	Learning Difficulty	Mean Score	Percentage	Interpretation
1	Limited agricultural vocabulary	4.20	84%	Very High
2	Lack of confidence in speaking English	4.10	82%	Very High
3	Difficulty understanding agricultural texts	3.95	79%	High
4	Difficulty explaining agricultural processes	3.90	78%	High

Vocabulary limitations and lack of confidence in speaking English are the main barriers faced by agribusiness students.

Table 4
Structure of the Developed ESP Agribusiness Module

Unit	Topic	Communication Focus
1	Self-Introduction	Introducing academic background
2	Agribusiness Vocabulary	Learning agricultural terminology
3	Reading Agricultural Texts	Understanding agricultural texts
4	Translating Agricultural Texts	Translating agribusiness texts
5	Watching Agricultural Videos	Identifying key information from videos
6	Listening to Agribusiness Audio	Listening comprehension
7	Writing Professional Emails	Writing formal communication
8	Agricultural Products	Describing agricultural commodities
9	Agricultural Processes	Explaining farming processes

Unit	Topic	Communication Focus
10	Fieldwork Reporting	Reporting field observations
11	Agribusiness Problems	Discussing agricultural issues
12	Job Interview Simulation	Professional communication practice
13	Agribusiness Presentation	Presenting agribusiness ideas
14	Sustainable Agriculture	Discussing sustainability issues

Table 5
Comparison between Existing English Teaching and Developed ESP Course

Aspect	Existing English Course	Developed ESP Course
Teaching focus	General English grammar	Agribusiness communication
Learning activities	Grammar exercises	Discussion, presentation, role play
Vocabulary	General English vocabulary	Agricultural terminology
Learning materials	General English textbook	ESP Agribusiness Module
Communication context	Everyday communication	Agribusiness academic communication

Figure 1
Research Procedure for ESP Course Development

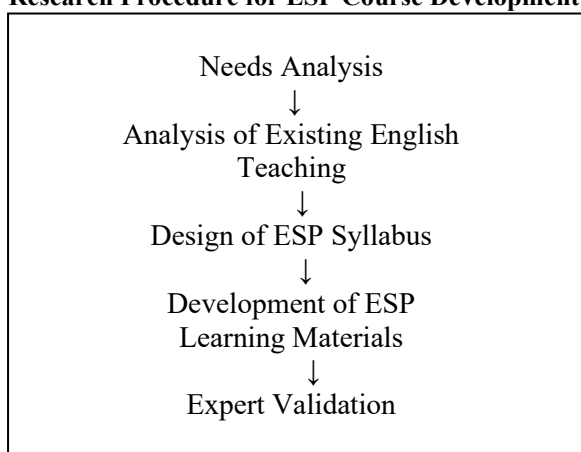
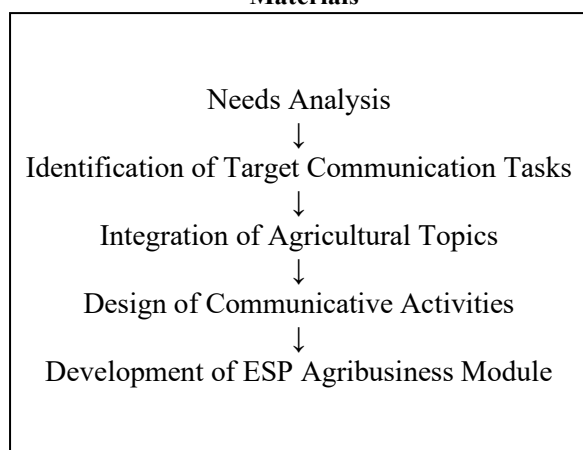


Figure 2
Framework for Developing ESP Agribusiness Materials



Conclusion

This study explored the English learning needs of agribusiness students and developed ESP instructional materials designed to address those needs. The findings of the needs analysis reveal a clear mismatch between students' communicative requirements in agribusiness

contexts and the grammar-oriented English instruction they previously experienced. While existing teaching practices focused mainly on grammatical structures and general English exercises, the results indicate that students require opportunities to use English for discipline-specific communication tasks, particularly presenting agricultural topics, explaining agricultural processes, and reporting fieldwork activities.

Based on these findings, the study developed an ESP-based syllabus, course plan, and instructional module consisting of fourteen units that integrate agricultural content with communicative language learning activities. The developed materials emphasize discipline-specific vocabulary, contextualized communication tasks, and interactive learning activities that reflect the academic practices of agribusiness education. In this regard, the study contributes to ESP course design by demonstrating how needs analysis can be translated into structured instructional materials for a specific disciplinary context.

From a theoretical perspective, the findings support the view that language instruction becomes more meaningful when it is aligned with learners' disciplinary communication needs. The study also highlights the importance of integrating subject-specific content and communicative tasks in ESP instruction, particularly in fields such as agriculture where students frequently engage in fieldwork, project presentations, and problem-solving discussions. In practical terms, the study suggests that English instruction in non-English study programs should move beyond general grammar-based teaching and adopt needs-based ESP approaches. Integrating agricultural topics

and authentic communication tasks into English learning activities can help students develop the language skills required in their academic and professional contexts.

However, this study has several limitations. First, the needs analysis involved a relatively small number of participants from a single study program, which limits the generalizability of the findings. Second, the research focused on the design and development of instructional materials and did not include classroom implementation or evaluation of the materials' effectiveness in improving students' language skills. Future research may address these limitations by implementing the developed ESP materials in classroom settings and examining their impact on students' communicative competence. Further studies may also explore ESP course development in other agricultural disciplines or compare the effectiveness of ESP instruction with traditional English teaching approaches. Overall, the study demonstrates that needs-based ESP materials development can provide a more relevant framework for designing English instruction that supports the academic communication needs of agribusiness students.

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