

Assessing English Needs for Vocational Animal Feed Technology Students

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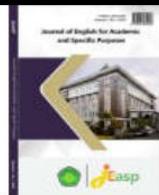
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Abstract

This study investigates the English language needs, perceptions, and learning preferences of students in the Animal Feed Technology program at Politeknik Pertanian Negeri Kupang, located in Eastern Indonesia. Recognizing the region's limited access to quality education and its impact on English proficiency, the research aims to answer three core questions: (1) What are the students' English language needs and wants? (2) How do they perceive their academic and professional English requirements? (3) What are their preferred learning methods, materials, and classroom environments? Further, mixed-methods approach was employed, involving 97 student respondents who completed a structured questionnaire and seven students who participated in a focus group discussion (FGD). The findings reveal that most students self-identify as beginners in English, rarely use the language in academic contexts, and lack confidence in their communicative abilities. Despite these challenges, they are highly motivated by future career aspirations, identifying speaking, technical writing, and vocabulary development as crucial language skills. Students prefer multimedia and contextualized materials and favor collaborative and hands-on learning environments. The results highlight a significant gap between students' current English proficiency and the demands of their academic and professional contexts. Based on these findings, the study recommends the development of an English for Specific Purposes (ESP) curriculum tailored to Animal Feed Technology, emphasizing functional communication, practical application, and learner-centered instruction. This research contributes to the literature on vocational ESP and provides actionable insights for educators and policymakers aiming to improve language education in underrepresented regions.

INTRODUCTION

Suryadarma (2006) segregates region of Indonesia into two types, which are Java and Bali, as opposed to outside Java and Bali, and Western Indonesia as opposed to Eastern Indonesia. Eastern Indonesia is comprised of Nusa Tenggara Archipelago, Maluku Archipelago, Sulawesi, and Papua Western Indonesia, while Westerns Indonesia is made up of Java, Sumatra, Bali, and Kalimantan. The study stresses disparities contribute to underdevelopment and poverty, affecting both western and eastern regions differently (Harahap et al., 2020; Sihombing, 2019; Zreik, 2023). Regarding education, based on Suryadarma (2006), Eastern Indonesia has lower



average education attainment and higher standard deviation than Western Indonesia. Azzizah (2015) also discusses the same matter on the inequality of education development in western and eastern Indonesia.

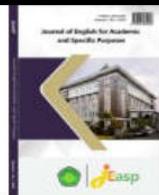
Therefore, Azizah (2015) suggests that the education gap between the Western and the Eastern part of Indonesia arises because of the linguistic diversity, and thus it may impact on their motivation and ability to study in schools. Hence, since using Indonesian language in school is already an exertion, it may also affect students' fluency in English as the foreign language. Nonetheless, urban areas, especially in Western Indonesia, have more international schools which use English as a Medium of Instruction (EMI) and Content and Language Integrated Learning (CLIL) programs, leading to higher fluency levels (Cleopatra & Rifai, 2023), while students in Eastern Indonesia attend schools with fewer resources and less emphasis on English, resulting in lower proficiency (Nawas et al., 2023).

In light of these facts, this study is conducted in State Agriculture Polytechnic of Kupang (henceforth: Politani Kupang), which located in East Nusa Tenggara (NTT). The province has the third lowest HDI (Human Development Index) and Net enrolment rate (NER) (Azzizah, 2015) among other Indonesian provinces. Low HDI and NER are the result of limited access to quality education, economic constraints, and cognitive and developmental impacts which leading to limited professional and global opportunities. Thus, based on these issues aforementioned, need analysis of English for Vocational purpose for students in Politani Kupang is required as students face those challenges and Eastern region has different industrial needs. The need analysis results will inform the lesson plan for Animal Feed Technology program study at Politani Kupang's Faculty of Animal Husbandry.

As it is designed to address the specific linguistic and professional needs of learners in particular fields, English for Specific Purposes (ESP) differs significantly from general English instruction. Furthermore, needs analysis is a foundational step in ESP course development, encompassing Present Situation Analysis (PSA), Target Situation Analysis (TSA), Means Analysis (MA), Learning Situation Analysis (LSA), and Language Audit (Rahman, 2015). These components guide ESP practitioners in designing appropriate syllabi, teaching materials, instructional methods, and learning resources (Octaberlina & Muthmainnah, 2021a; Rahman, 2015). When conducted in vocational education contexts, needs analysis offers several advantages—not only in enhancing curriculum design and improving student outcomes but also in supporting the professional development of educators.

One of the main positive impacts of needs analysis lies in its role in aligning ESP curricula with the language competencies required by specific vocational sectors such as mechanical engineering, informatics, and business (Nguyen & Ho, 2024; Ningsih & Sulaiman, 2023). This alignment ensures that students acquire field-relevant communication skills, thus improving their job readiness and competitiveness in the labor market (Aimoldina & Smagulova, 2024). Moreover, needs analysis enables the identification of students' language proficiency levels and preferred learning styles, which supports the development of tailored instructional strategies that enhance engagement and comprehension (C. Wang, 2024). Empirical findings reveal that students engaged in needs-based instruction report higher satisfaction and perceive their ESP courses as more meaningful and relevant (Lasekan et al., 2023). Furthermore, the use of updated needs analysis techniques allows instructors to better respond to the linguistic and cultural diversity present in modern classrooms, leading to improved learning outcomes (Mansor et al., 2023).

Beyond its pedagogical value, needs analysis contributes to the continuous improvement of teaching practices. It fosters adaptive teaching through regular incorporation



of student feedback and alignment with evolving industry demands (C. Wang, 2024). This iterative process nurtures a responsive and innovative academic environment, particularly in vocational institutions where real-world applicability is essential (Nguyen & Ho, 2024).

Recent studies have widened the scope of ESP by showcasing how needs analysis can reconcile traditional curricula with modern workplace requirements. For instance, Aimoldina & Smagulova (2024) identified a mismatch between existing materials and students' communication needs, advocating for context-specific ESP courses to boost employability. Likewise, Bian & Ibrahim (2024) emphasized the importance of integrating critical thinking and problem-solving into ESP instruction, reflecting interdisciplinary demands. Chusna et al. (2023) and Nur et al., (2024) introduced a flipped-TPACK model in animal husbandry, which successfully enhanced students' digital and subject-specific language skills. In the business domain, Nguyen & Ho (2024) found that most curricula lacked practical relevance, suggesting the inclusion of real-world case studies. For informatics students, Kurniawan & Fitriani (2023) recommended scenario-based instruction to improve communication and technical writing skills.

In addition, efforts to integrate ESP with sustainability and vocational relevance have gained momentum. Lasekan et al. (2023), in a case study from Chile, emphasized embedding green practices into business English curricula and incorporating feedback loops with industry stakeholders. Ningsih & Sulaiman (2023) showed that technical documentation skills were particularly beneficial for engineering students, while Hudia et al. (2023) proposed project-based learning tasks tailored to agricultural settings to increase practical relevance.

Further, earlier studies further underscore the diversity of ESP needs across fields. Damanik et al. (2021) and Farah (2021) stressed the importance of practical language skills such as report writing and workplace communication, supported by collaborative classroom strategies. In physical education, Pranoto & Suprayogi (2020) identified instructional gaps in communication skills, advocating field-based learning. Similarly, Kaharuddin et al. (2019) emphasized cultural and conversational fluency for hospitality students, while Waloyo (2019) proposed the development of industry-aligned ESP textbooks enriched with audio-visual aids.

Nevertheless, despite this growing body of research, significant gaps remain. For example, Mansor et al. (2023) noted the increasing need for ESP programs tailored to learners' specific backgrounds, shaped by global mobility, technological advances, and multicultural learning environments. However, limited research has explored needs analysis in the context of the Animal Feed Technology program, particularly in universities located in Indonesia's eastern regions. Current materials often fail to address the specialized communication needs of students in this field. To address these gaps, the present study seeks to: (1) what are the English language needs and wants of students in the Animal Feed Technology study program at Politani Kupang?, (2) how do students perceive their academic and professional English language requirements in the context of Animal Feed Technology?, and (3) what are students' preferences regarding English learning methods, materials, and classroom environments, and how do these influence their motivation and engagement?. To answer these questions, this research examines the existing situation and forecasts solutions through a mixed-methods approach that considers both measurable trends and qualitative insights. It is hypothesized that students will express a high degree of motivation driven by career needs, but show limited language proficiency and confidence due to lack of exposure and support. This study aims to validate those assumptions by collecting empirical evidence from the target population.

The study is theoretically grounded in the ESP instructional design model, incorporating the frameworks of PSA, TSA, MA, LSA, and Language Audit as developed by Rahman (2015). These interrelated elements provide a comprehensive lens to examine learners' linguistic



competencies, contextual factors, and learning preferences. Within this framework, variables such as self-perceived proficiency, motivational factors, instructional needs, and preferred media are analyzed to generate targeted recommendations. The investigation draws on indicators like perceived importance of English, frequency of use, confidence in communication, and readiness to apply English in academic and professional contexts. Together, these variables form a cohesive conceptualization of the specific needs of Animal Feed Technology students.

In summary, this study establishes its theoretical foundation in contemporary ESP and needs analysis scholarship. It responds to current limitations in educational practice by offering a localized, data-driven perspective on curriculum development in vocational English education. Through its focus on Eastern Indonesia and the under-researched Animal Feed Technology field, this study contributes novel insights with practical, theoretical, and policy implications for ESP pedagogy.

METHOD

This research applied quantitative and qualitative method to discover the answers on the questions of what are the needs and wants of future students of Politani Kupang toward English course. By employing quantitative techniques such as surveys and statistical analyses, researchers can objectively measure and analyse the needs and wants of future students regarding English courses. This data-driven approach facilitates informed decision-making and the development of tailored educational programs. It involved 97 students of Animal Feed Technology study program academic year 2024/2025 who experienced in ESP learning and teaching directly in class. As shown in Figure 1, the gender distribution of respondents is nearly equal, with 49.5% female and 50.5% male.

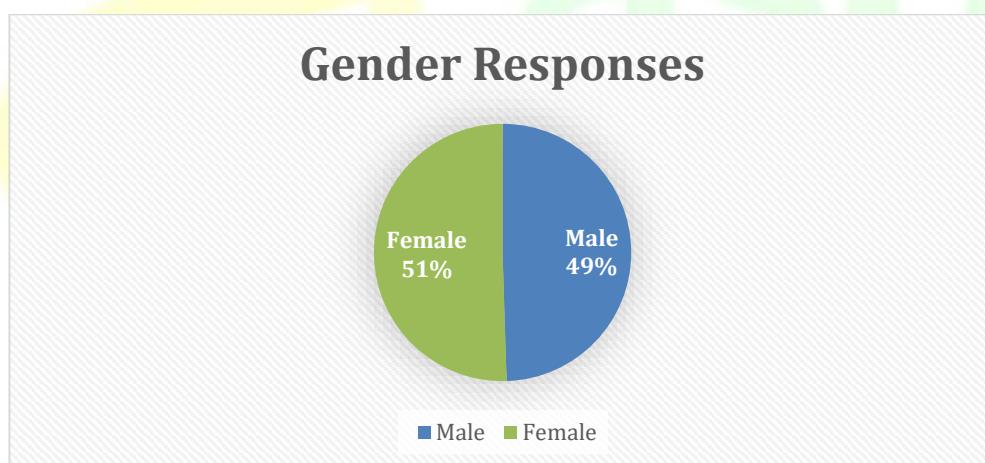


Figure 1. Respondents' gender distribution

Technique of data collection was conducted by distributing questionnaire, in google form, that makes up of 27 questions. It was designed to understand the specific English language needs of Animal Feed Technology students and divided into five topics: (1) general background information, (2) language proficiency and academic needs, (3) professional or occupational needs, (4) preferred learning methods and materials, and (5) attitudes towards learning English.

Moreover, in this study, seven students participated in a Focus Group Discussion



(FGD) using a semi-structured interview technique to get qualitative data. Through guided group interactions, a well-known qualitative research technique known as FGDs helps to enable in-depth investigation of participants' viewpoints. By allowing flexibility in the questions, the semi-structured interview technique lets the researcher probe more into developing subjects while keeping a constant framework across conversations (Knott et al., 2022).

The seven participants who randomly volunteered follow accepted norms for the size of a FGD group. Hennink (2007) asserts that focus groups usually consist of 6 to 10 people, according to research, which strikes a mix between manageability of debate and variety of viewpoints. For sensitive or complicated subjects, smaller groups—such as those with seven members—are especially successful since they provide a safe space for participants to share particular insights (Hennink, 2007). Smaller group numbers also help to improve the depth of data gathered since every participant has more chance to participate in the conversation (Hennink, 2007).

The data collecting process was enhanced even more by the use of semi-structured interviews inside the FGD framework. According to Knott et al. (2022), this approach allows participants' experiences and viewpoints be fully understood by combining pre-selected questions with the freedom to investigate fresh subjects that surface during the conversation. In educational research especially, where participants' observations can guide the creation of courses and teaching strategies, this kind of approach is especially helpful. Combining a seven-member FGD with semi-structured interviews offered a strong qualitative data gathering tool that helped to enable in-depth investigation of student needs and circumstances. This method guarantees the gathering of rich, thorough data to guide the goals of the research since it conforms with best standards in qualitative research.

RESULT AND DISCUSSION

Here are the findings and discussion of the research, presented based on the following aspects: students' general background information, students' English language needs and wants, students' perception on their academic and professional English language requirements in the context of Animal Feed Technology, and students' preferences regarding English learning methods, materials, and classroom Environments.

General background information

Based on the student background data gathered through a questionnaire, the following elaboration offers a detailed interpretation of the four figures related to students' English language proficiency, usage, confidence, and motivation in the context of the Animal Feed Technology study program.

As it can be seen in Figure 2, out of 97 student respondents, 86.6% identified themselves as Beginners, indicating that the majority of students perceive their English proficiency as limited to understanding simple sentences and commonly used expressions in daily life. Only 13.4% considered themselves to have Intermediate proficiency, able to understand main ideas in complex texts and respond with some degree of fluency. No students reported themselves as Advanced, which suggests a critical need for structured English language support. The overwhelming percentage of beginner-level students signals a strong necessity for foundational English instruction tailored to vocational contexts, particularly relevant terms and functions in Animal Feed Technology.

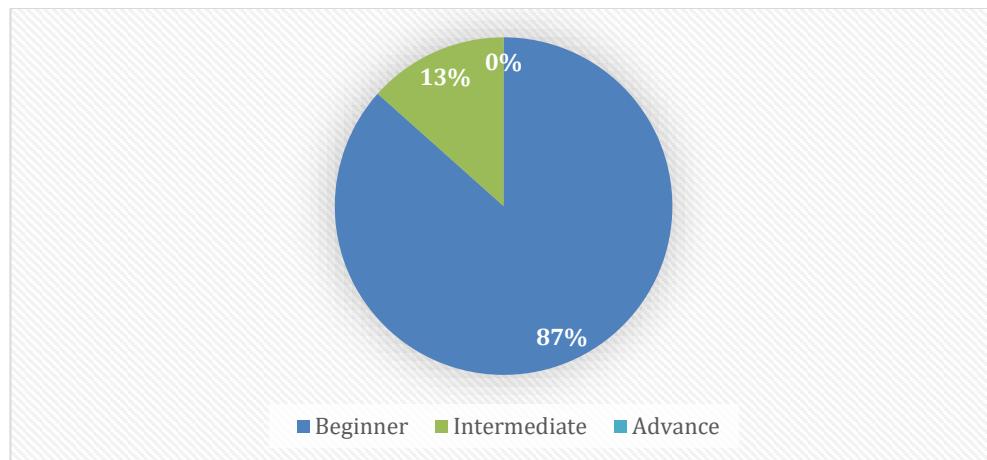


Figure 2. Students' belief on their language proficiency

As reflected in Figure 3, while 28 students (28.9%) said they hardly used English, 20 students (20.6%) acknowledged to using it extremely seldom, 35 students (36.1%) reported utilizing English at a moderate level in their academic tasks. Just 14 pupils (14.4%), said they used English frequently to very frequently (Levels 4 and 5 as in often and very often). More than 49% of students thus interact with English just occasionally or not at all in their academic work. Such low rates of English use imply that for most students English is not yet a necessary component of daily academic activities. This could be a reflection of a curriculum or classroom setting lacking enough consistent or pragmatic English inclusion. Therefore, the limited usage of English in academic settings could impede the development of English for Specific Purposes (ESP), which is necessary for vocational learners getting ready for professional positions in their field.

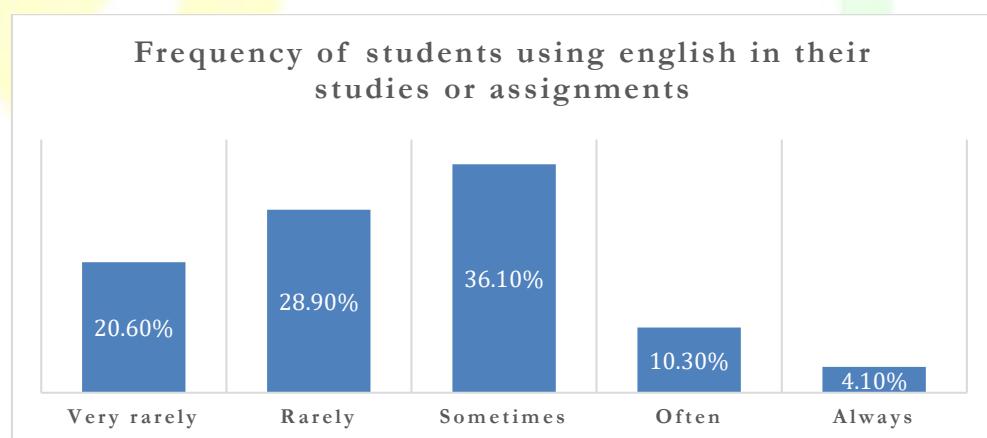
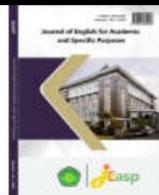


Figure 3. Frequency of students using English in their studies or assignments

The bar chart on students' confidence in using English for academic communication, Figure 4, reveals that 37 students (38.1%) reported a neutral or moderate level of confidence. Meanwhile, 24 students (24.7%) indicated low confidence (Level 2), and 17 students (17.5%) expressed very low confidence. Only 19 students (19.5%) described themselves as confident or



very confident (Levels 4 and 5) in using English for reading, writing, and discussing academic content. These findings indicate that a significant majority of students do not feel confident in their English communication skills within academic contexts. This lack of confidence likely stems from their limited English proficiency and infrequent use of the language in their studies. To address this issue, course design should prioritize confidence-building activities, particularly through scaffolded speaking and writing tasks that gradually increase in complexity and provide consistent opportunities for practice and feedback. These findings suggest that while most students possess a functional level of English suitable for basic academic and communicative tasks, there is still a significant gap in higher-order English language skills. This has implications for English for Specific Purposes (ESP) course design, particularly in vocational contexts like Animal Feed Technology, where students may need to comprehend technical documentation or engage in professional communication. Therefore, ESP curriculum development should aim not only to reinforce foundational skills but also to scaffold students toward advanced language competencies required in the professional field (Y. Wang, 2024). Moreover, the dominance of the intermediate level highlights the necessity for differentiated instruction strategies to accommodate varying proficiency levels within the classroom. The importance of emphasizing responsive teaching practices in ESP settings to enhance learner motivation and engagement (Deyuan, 2016).

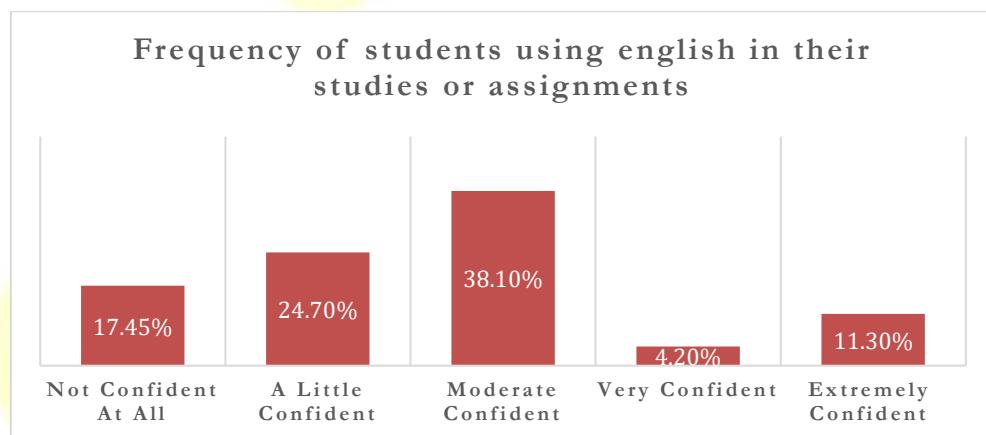


Figure 4. Students' self-efficacy to use English to discuss academic topics in their field

Figure 5 demonstrates that, among the 50.5% of respondents, professional growth is the most often mentioned reason for learning English. This indicates students' strong conviction that English is a useful instrument for guaranteeing future job. With 24.7% of students saying they study English to finish homework and grasp academic literature, academic needs came second most often as a motivator. The remaining 24.8% of students claimed personal interest and other minor motivations such self-directed learning or the need to acquire fresh knowledge. These results imply that English education should be closely matched with the career objectives of pupils. The curriculum should include vocationally relevant materials, such reading feed labels, preparing laboratory reports, and talking about animal feed production techniques, if it is to sufficiently encourage their motivation. This method would enable students' motivation to be matched with useful language abilities required in their line of work.

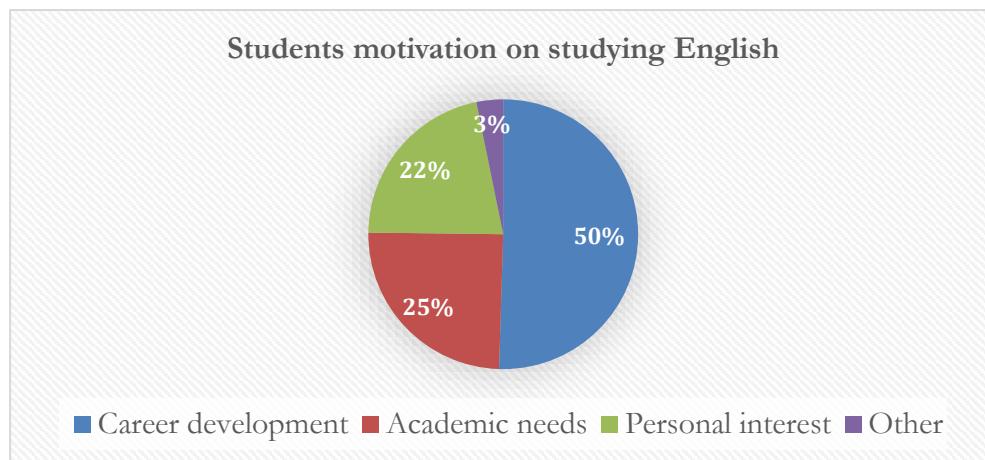


Figure 5. Students motivation on studying English

These findings indicate that students in the Animal Feed Technology program generally perceive themselves as beginners in English, use the language infrequently in academic contexts, and lack confidence in using English for academic purposes. Despite these challenges, most students are primarily motivated to learn English due to career aspirations, seeing it as a valuable tool for future employment in their field. The pie chart above illustrates the primary motivations of 97 students in learning English. The data reveals that career development is the leading factor, with 50.5% of respondents indicating that their main reason for studying English is to enhance their future career prospects. This aligns with global trends where English proficiency is increasingly seen as a key asset in the labor market, particularly in vocational fields. The second most common motivation is academic needs, such as completing assignments or understanding course materials, selected by 24.7% of students. This indicates that a significant number of students recognize English as a functional tool in supporting their educational success, particularly in ESP (English for Specific Purposes) contexts (Octaberlina & Muthmainnah, 2021b).

Personal interest in the English language accounts for 21.6% of responses, suggesting that intrinsic motivation still plays a strong role for a portion of learners, such intrinsic motivation can significantly enhance language learning outcomes, especially when students find enjoyment or personal value in the subject matter. The remaining categories, which include responses such as expanding knowledge beyond their field of study, liking English but finding it difficult, and broadening general understanding, collectively make up less than 3% of responses. Although these motivations are less prevalent, they highlight the diversity in students' learning goals and the need for differentiated instructional approaches (Deyuan, 2016). In conclusion, the data suggest that while utilitarian motives like career and academic needs dominate students' reasons for learning English, personal interest and broader intellectual goals still play meaningful roles. These findings support the design of ESP curricula that not only target professional and academic competencies but also consider students' motivational profiles to foster engagement and long-term learning success.

Students' English language needs and wants

According to data collected through the questionnaire, several key insights emerged regarding students' English language proficiency and academic needs in the Animal Feed Technology program.

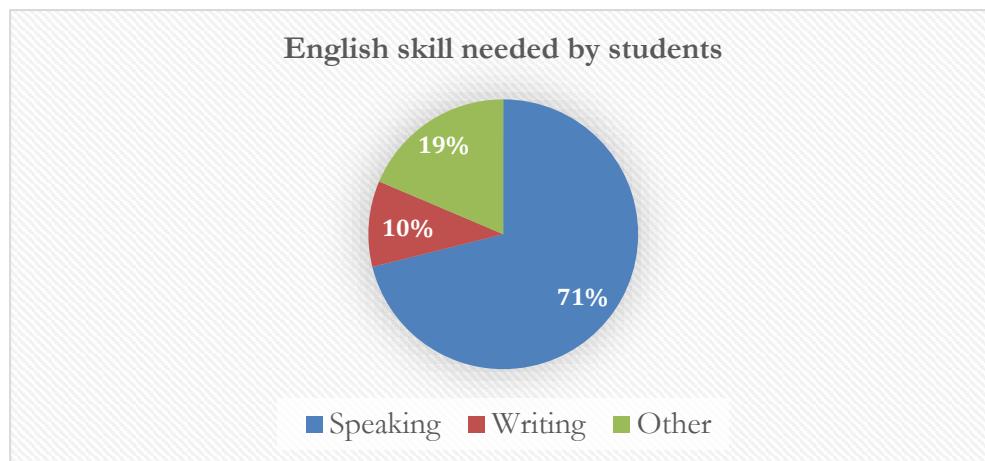


Figure 6. English skill needed by students for professional needs

As demonstrated in Figure 6, 71.1% of students said that the most important language skills required for their future employment is English speaking or communication capacity. Following this was producing reports in English (10.3%) and other demands including knowing technical words in animal feed and applying English in scientific settings. These results reflect a strong perception that oral communication and technical report writing in English are critical in the field of animal feed technology, especially in work environments where international collaboration or technical documentation is involved. This is consistent with Aimoldina and Smagulova's (2024) study, which found that developing field-specific communication skills enhances students' job readiness and increases their competitiveness in the labor market.

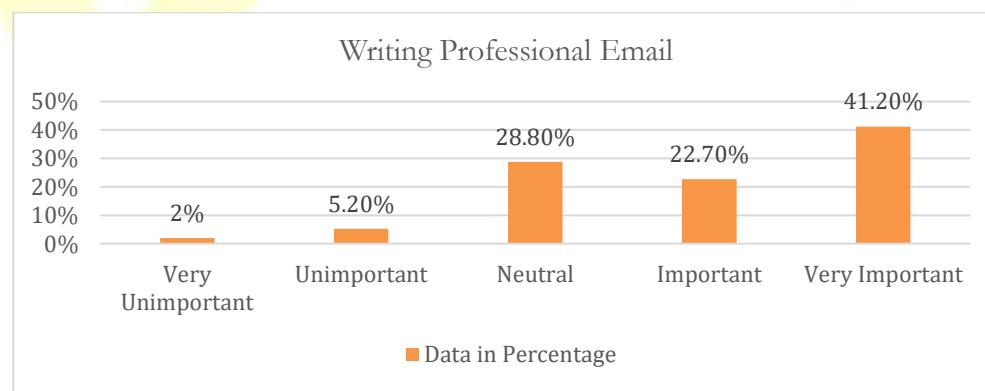


Figure 7. The need to learn writing professional Email and formal report

Moreover, according Figure 7, 41.2% of students strongly agreed that learning to write professional emails and formal reports in English would be beneficial. An additional 28.8% of students agree, and 22.7% students somewhat agree, showing that over 90% of respondents see at least some value in developing these skills. These findings indicate a clear demand for integrating practical writing tasks into English courses that mirror real-life professional

situations, such as writing technical reports, sending professional emails, or documenting project progress in English. Damanik et al. (2021) and Farah (2021) stressed the importance of practical language skills such as report writing and workplace communication, supported by collaborative classroom strategies.

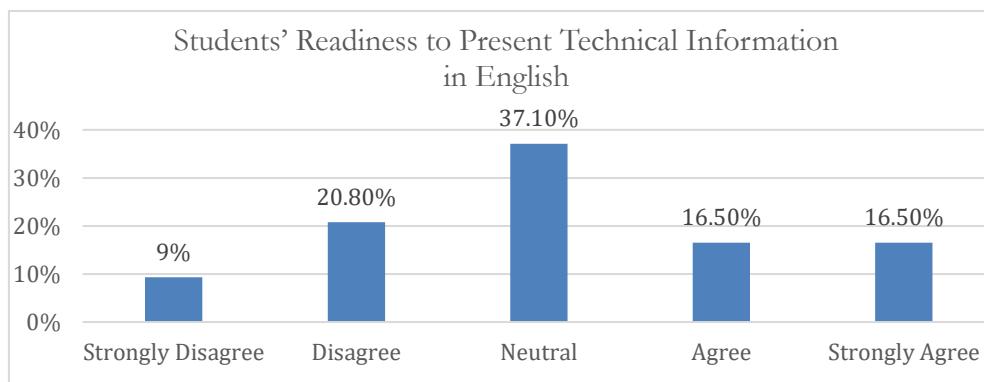


Figure 8. Students' readiness to present technical information in English

As indicated in Figure 8, regarding students' readiness to present technical information in English, 16.5% of students rated themselves as highly ready, while the largest proportion (37.1%) chose the middle value (neutral). 20.6% is not ready, while 9.3% of them is completely unready. This shows that many students feel only somewhat confident or not fully prepared for public speaking or presentations in English, especially in technical contexts. This underlines the importance of incorporating speaking and presentation practice into the curriculum, specifically focused on domain-specific language related to agriculture and feed technology.

The results of this needs analysis highlight a strong perceived relevance of English for future professional tasks among students in the Animal Feed Technology program. Communication, both written and spoken, is seen as essential, particularly in formal and technical contexts. However, the students' confidence levels suggest that while they recognize the importance of English, they require more targeted and practical training to feel prepared. Thus, English for Specific Purposes (ESP) courses in vocational higher education, especially in agricultural technology fields, should focus on: (1) functional communication skills (report writing, emailing, discussion), (2) technical vocabulary development, and (3) presentation skills in academic or professional settings. Integrating these components into the ESP curriculum could significantly enhance students' preparedness for the demands of the professional world.

Students' perception on their academic and professional English language requirements in the context of Animal Feed Technology

Based on the questionnaire results, several important findings emerged concerning students' perceptions of their academic and professional English language requirements in the Animal Feed Technology program.

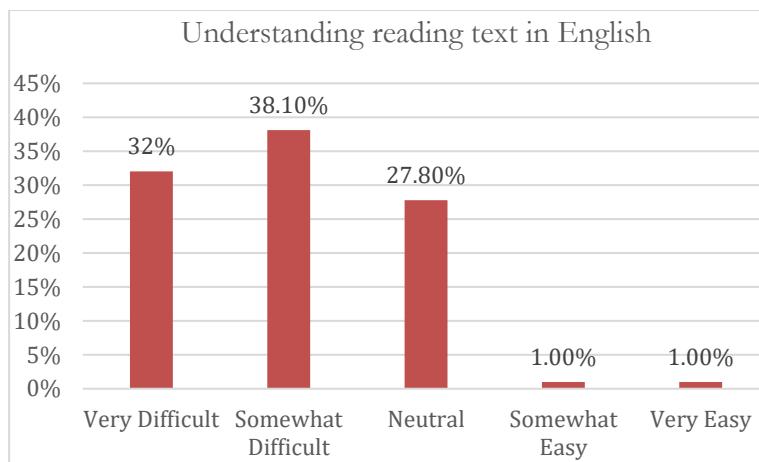


Figure 9. Students' difficulty in understanding reading text in English

Many students reported difficulty in understanding scientific texts in English related to their field. As reflected in Figure 9, 32% of respondents rated their difficulty level as very high, 38.1% as high, and 27.8% as moderate—indicating that nearly all respondents experience some degree of difficulty. This presents a significant barrier to accessing academic content and may limit their ability to engage with international sources. Indonesian is not the mother tongue for most people in the eastern regions of Indonesia (Azzizah, 2015), making the use of Indonesian already challenging—let alone learning English as a foreign language.

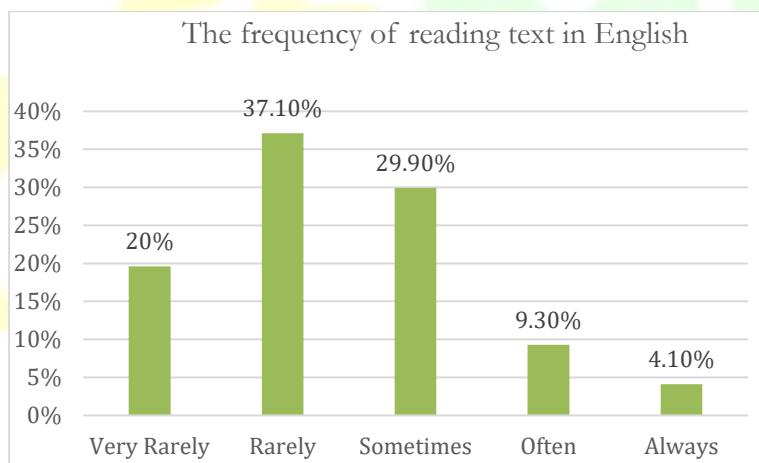


Figure 10. The frequency of reading text in English

Regarding the frequency of reading academic or technical publications in English, figure 10 reveals that 37.1% of students rarely read English material, followed by 29.5% (sometimes). Students in Levels 4 and 5 taken together, just 13.4% read such materials regularly. This rare participation implies that English reading practices are not yet included into their daily study routines, maybe because of insufficient comprehension abilities or lack of exposure to English-language texts in their curriculum.

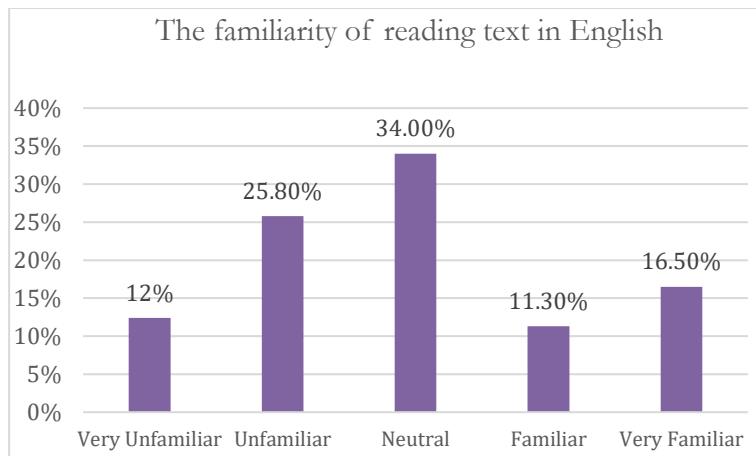


Figure 11. The familiarity of reading text in English

Students' familiarity with English vocabulary specific to Animal Feed Technology is also limited. This is evident from Figure 11 above that most students rated themselves at Level 3 or below, with 34% somewhat familiar, 25.8% not familiar, and 12.4% totally unfamiliar. Only a small percentage reported high familiarity (Levels 4 and 5), indicating a gap in their technical vocabulary knowledge. This gap likely contributes to their struggle with reading academic texts and reduces their ability to participate confidently in discussions about their field in English.

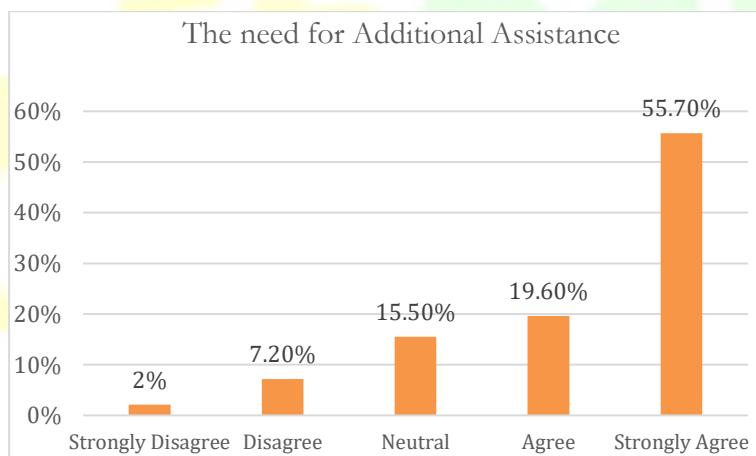


Figure 12. Additional support to understand lecture and seminar in English

The need for support in understanding lectures or seminars conducted in English is strongly expressed in Figure 12. More than half of the students (55.7%) rated their need for additional assistance at the highest level (Level 5), and 19.6% rated it at Level 4. This overwhelming need suggests that current English instruction does not adequately prepare students for real-time academic communication, especially in listening comprehension of discipline-specific content. Additionally, participants in the FGD interview admitted that they struggled to understand certain words without using a dictionary, even though its use was prohibited by the lecturer. This supports the findings in Figure 12, which show that 55% of students require additional support to comprehend English.

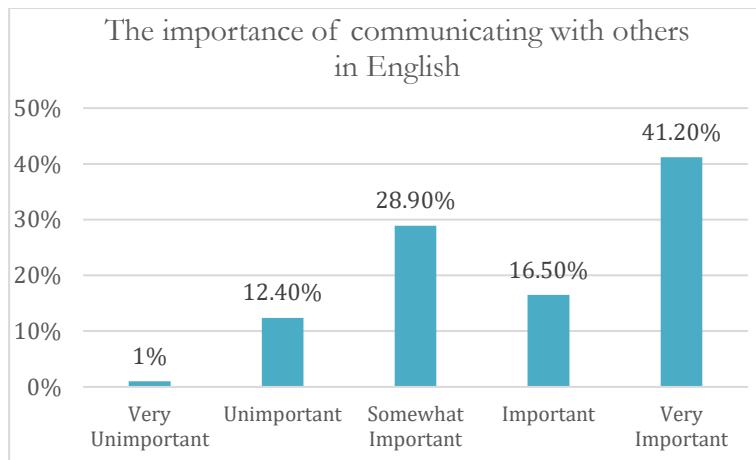


Figure 13. The importance communicating with others in English

Further, Figure 13 underscores the perceived importance of being able to communicate or collaborate with others in English. A significant number of students (41.2%) rated this as extremely important, with another 28.9% rating it as somewhat important, 16.5% at important. This shows a clear awareness among students of the role English plays in academic and professional collaboration, even if their current skills are not yet aligned with this need. This finding is consistent with Lasekan et al. (2023), in a case study from Chile, emphasized embedding green practices into business English curricula and incorporating feedback loops with industry stakeholders.

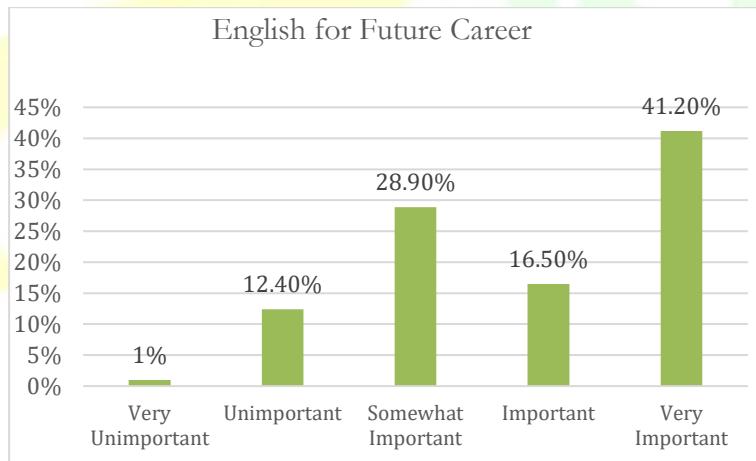


Figure 14. Students' need in English for work in Animal Feed Technology feed

Meanwhile, Figure 14 explores how necessary students believe English will be in their future careers. The majority of students (58.8%) selected the highest rating (5), indicating they strongly agree that English will be important in their field. Only a small percentage (6.2%) rated it as less relevant (2), and none selected 1 (not needed at all). This suggests a high level of awareness among students about the relevance of English in the agricultural and animal feed sectors, which are becoming increasingly globalized. This is supported by Mansor et al. (2023), who found that the growing demand for ESP programs tailored to learners' specific backgrounds is driven by several factors, one of which is global mobility.

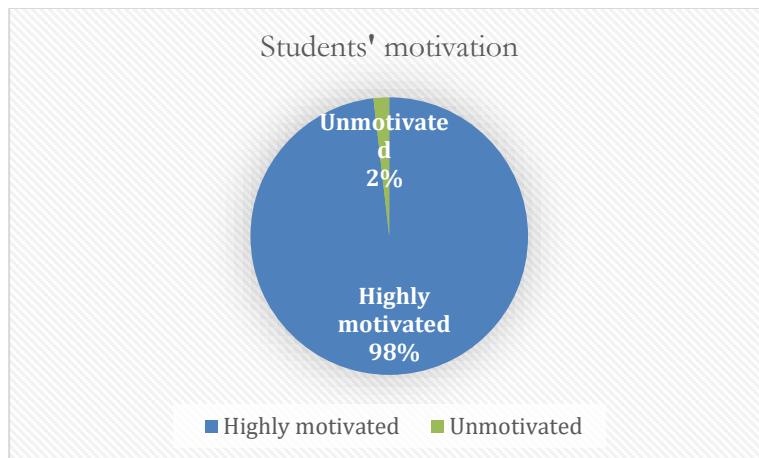


Figure 15. Students' motivation to elevate English skill

Further, as shown in Figure 15, an overwhelming majority of respondents (98%) reported being very motivated to improve their English skills for academic goals, while only a small fraction (2%) indicated low motivation.

Despite this motivation, students face challenges in their English learning process. According to the data, speaking was identified as both the most challenging (by 33 respondents) and the second most challenging aspect (by 27 respondents), followed by listening and reading, by 31 respondents and around 27 respondents respectively. This suggests that productive skills, particularly oral communication, remain a critical area for support, as 60.8% students believe that learning English is important for their future career (Figure 14). These findings underscore the importance of enhancing pedagogical approaches in English for Specific Purposes (ESP) to provide more focused training on listening and speaking skills, particularly in technical and professional communication contexts.

Based on the questionnaire results, students in the Animal Feed Technology program face considerable challenges in meeting their academic and professional English language requirements. A majority struggle with understanding scientific texts, technical vocabulary, and academic lectures in English. Most rarely read English materials and express a strong need for additional support, especially in speaking practice. Despite these difficulties, students show high motivation to improve their English skills and recognize its importance for future careers. The findings highlight the urgent need for targeted English for Specific Purposes (ESP) instruction, particularly in vocabulary development, reading comprehension, and academic listening to support students' academic success.

Students' preferences regarding English learning methods, materials, and classroom Environments

The following findings pertain to students' preferences in English learning methods, instructional materials, and classroom environments. These insights shed light on the types of approaches and settings that best support their language development.

First, as shown in Figure 19, the majority of respondents (62.9%) found multimedia resources—such as the Internet, YouTube, and podcasts—to be the most helpful learning material. This preference indicates a strong inclination toward engaging, accessible, and audiovisual content that aligns well with the learning styles of today's students. This finding is supported by Khairat (2024) that the use of multimedia, such as YouTube, can enhance students' English listening skill. Textbooks followed at 25.8%, suggesting that traditional

materials still hold value, especially when used as complementary resources. Textbooks play important role in modern education as it offers positive impact in teaching morals and intercultural competence (Ubaidillah & Rizal, 2023). Research articles, journals, Duolingo, and practical-related content were chosen by only a small percentage, revealing that more academic or passive materials may be perceived as less engaging or difficult to access without sufficient scaffolding. Although many students selected multimedia (such as the internet, YouTube, podcasts, etc.) as the most helpful learning media, FGD participants admitted that they rarely accessed such content outside the classroom, despite using social media daily. This was mainly due to a lack of interest in engaging with English-language content and, in some cases, a lack of awareness about it.

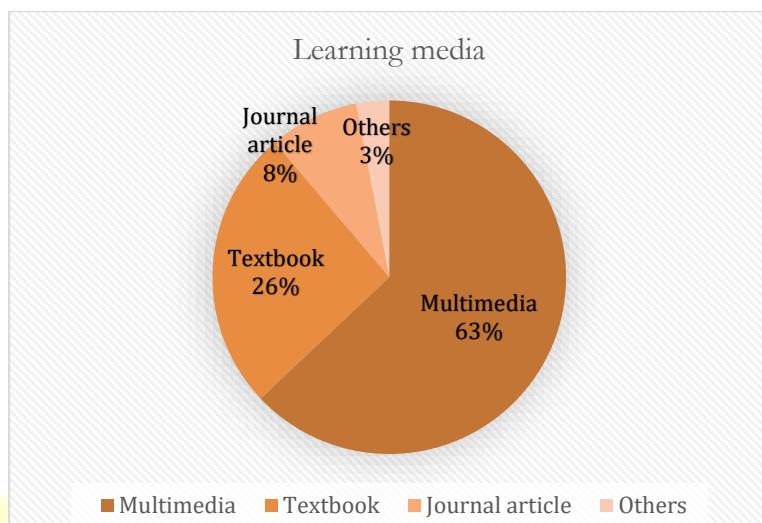


Figure16. Learning media that is considered the most helpful

In response to the question about the usefulness of practicing English in real-life scenarios related to Animal Feed Technology (Figure 20), a significant majority (84.5%) of students selected level 3 and above on the 5-point Likert scale, with 36.1% giving the highest rating. These findings suggest that contextualized English practice in relevant, real-life situations is highly effective and valued by students. Personalised real-live world scenarios proved to be a powerful approach for motivating disengaged students (Pandey, 2024). This supports the integration of English for Specific Purposes (ESP) practices that reflect students' future workplace environments. Activities such as speaking role-plays create an iterative learning process that fosters a responsive and innovative academic atmosphere (Nguyen & Ho, 2024). This approach is also supported by Kurniawan and Fitriani (2023), whose study in the Informatics Department recommends scenario-based instruction to enhance both communication and technical writing skills.

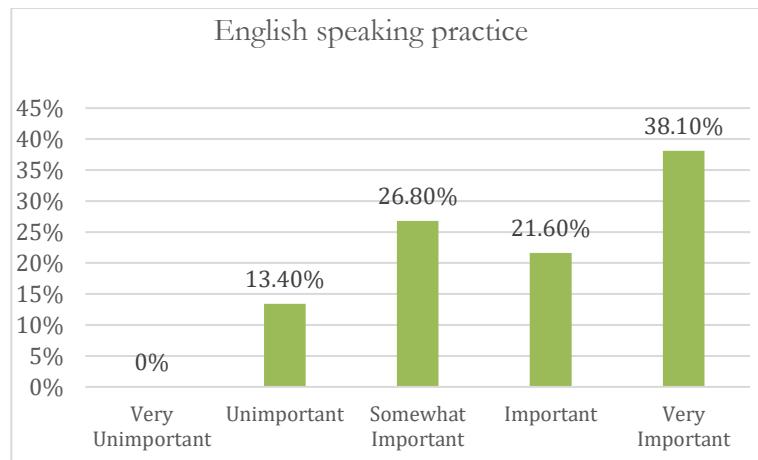


Figure 17. The usefulness of practicing English in real-life scenarios

Figure 17 demonstrates that students overwhelmingly recognize the importance of practicing grammar, vocabulary, and pronunciation. A combined 73.2% of respondents rated this aspect as very important (levels 4 and 5). This underscores the need for language instruction that does not only focus on passive understanding but actively integrates productive skills to boost communicative competence, especially in technical contexts.

Additionally, participants in the FGD interview expressed a strong preference for hands-on practice in skills such as listening, reading, and vocabulary. This aligns with the data where 38% acknowledged the value of practicing English in real-life contexts related to Animal Feed Technology, and 42% emphasized the importance of learning grammar, vocabulary, and pronunciation. It is also important to note that students prefer learning general vocabulary topics rather than focusing solely on Animal Feed Technology. As one student mentioned, *"Penting untuk memahami kata-kata selain di luar jurusan"* ("It's important to understand words beyond our major"). They find general vocabulary more accessible, especially as they are still building their basic English skills. The FGD participants also emphasized the importance of being taught correct pronunciation. They acknowledged making frequent mistakes and expressed a strong need for guidance on how to pronounce words accurately.

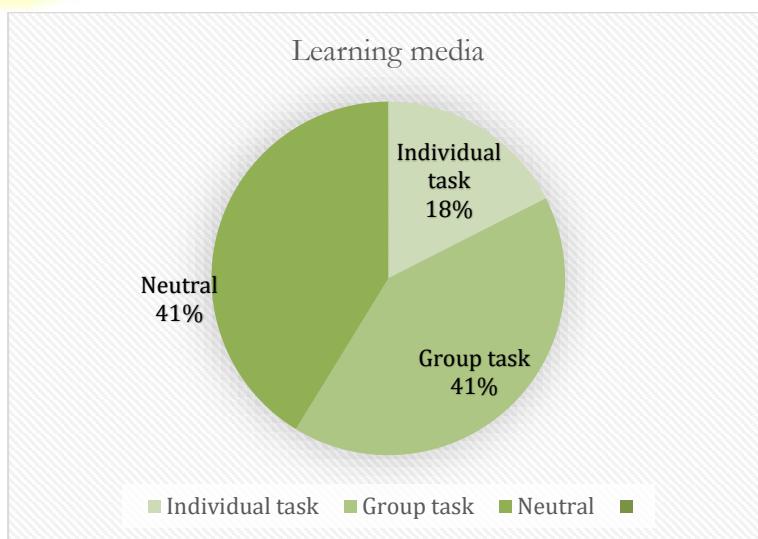
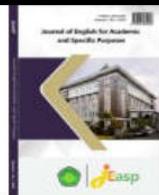


Figure 18. Student preferences for task formats



Student preferences for task formats were fairly balanced (Figure 18). While 41.2% preferred group work and another 41.2% preferred a balance between group and individual tasks, only 17.5% favoured working individually. This suggests that collaborative learning approaches are generally well-received and could be utilized more extensively to enhance peer interaction and engagement. However, the variation also indicates that instructional design should accommodate both individual and group activities to address diverse learner preferences.

Lastly, students expressed a clear preference for a supportive learning environment, as illustrated in Figure 23. Keywords such as *lingkungan* (environment), *nyaman* (comfortable), *tenang* (content), *kampus* (campus), and *interaktif* (interactive) indicate that they value a calm, interactive, and comfortable campus atmosphere that fosters effective English learning. These insights offer important implications for designing an English program that not only addresses students' current challenges but also aligns with their learning aspirations. Conducting a thorough needs analysis helps identify students' language proficiency levels and preferred learning styles, thereby informing the development of instructional strategies that are tailored, engaging, and effective (Wang, 2024).

The data highlight the importance of integrating multimedia resources, real-world language practice, and collaborative learning models into vocational English instruction. Tailoring content to students' practical needs and learning preferences—especially through authentic, scenario-based tasks—can increase motivation and improve language acquisition outcomes. Moreover, while multimedia is highly favoured, maintaining a blend of traditional and modern resources can support different learning styles and proficiencies.

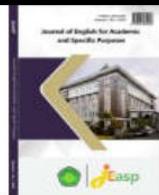
CONCLUSION AND IMPLICATIONS

This research was conducted with the overarching aim of identifying and analyzing the English language needs, perceptions, and preferences of students enrolled in the Animal Feed Technology program at Politeknik Pertanian Negeri Kupang (Politani Kupang). By doing so, it sought to develop a comprehensive understanding of the linguistic challenges and aspirations faced by vocational students in Eastern Indonesia: a region historically characterized by educational inequities and under-resourced learning environments.

The study successfully answered the three primary research objectives: (1) to explore the students' English language needs and wants, (2) to understand their perception of academic and professional English requirements in the context of Animal Feed Technology, and (3) to identify their preferences for English learning methods, materials, and classroom environments. The findings collectively affirm that while students possess strong motivation to learn English—particularly for career advancement—they are generally beginners in proficiency, rarely use English in academic contexts, and experience a marked lack of confidence in English communication. These data-driven insights illuminate the urgent need for tailored English for Specific Purposes (ESP) instruction grounded in authentic vocational contexts.

Advancement in the Field

This study contributes significantly to the growing body of ESP research, especially within the vocational and agricultural education sectors in underrepresented regions. Most existing ESP needs analysis studies are concentrated in urban or industrialized settings, leaving a gap in understanding the linguistic challenges of rural and semi-urban learners—particularly in Eastern Indonesia. By addressing this disparity, the study not only enriches current ESP



discourse but also underscores the necessity of contextualized curriculum development that is sensitive to regional and disciplinary distinctions.

One of the critical contributions of this research is the integration of both quantitative and qualitative methodologies to generate a holistic view of student needs. This dual approach, involving surveys and focus group discussions (FGDs), enabled the research to go beyond surface-level trends to explore deeper issues such as motivational triggers, perceived obstacles, and the psychological readiness of learners. Such nuanced insight is crucial in designing instructional strategies that are both pedagogically sound and emotionally supportive.

From a pedagogical perspective, the research emphasizes the necessity of shifting away from generic English instruction toward a purpose-built, needs-responsive curriculum. This aligns with calls in the literature (e.g., Aimoldina & Smagulova, 2024; Rahman, 2015) to rethink ESP instruction not as a monolithic enterprise but as a highly adaptive and industry-integrated practice. Through practical activities such as report writing, technical presentations, and field-specific dialogues, ESP programs can foster not just linguistic competence but also industry readiness—thereby enhancing the employability of vocational students.

Practical Implications

This study offers direct applications for curriculum designers, language instructors, and educational policymakers in vocational institutions. The most immediate implication is the necessity to revise the existing English syllabus to incorporate specialized vocabulary, professional writing formats, and oral communication tasks relevant to Animal Feed Technology—as it is also suggested in Hariyanti et al. (2025) study. This curriculum should feature scaffolded learning paths that build student confidence gradually—from basic vocabulary acquisition to high-stakes presentation skills.

Additionally, the widespread preference for multimedia and contextual learning materials suggests that institutions should invest in digital resources such as instructional YouTube videos, podcast-based comprehension exercises, and mobile learning apps like Duolingo tailored to agricultural vocabulary. Teachers must also be trained to utilize these tools effectively to engage digital-native learners who often underutilize online English content outside classroom settings.

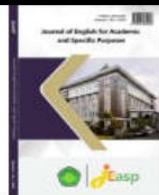
Theoretical Implications

The research affirms the validity of ESP frameworks in analyzing language needs and extends their application into the underexplored territory of agricultural and animal feed studies. It also demonstrates that needs analysis is not only a diagnostic tool but also a strategic intervention that bridges the gap between learners' current capabilities and future occupational demands.

Furthermore, this study contributes to the body of work highlighting the importance of integrating learner psychology—motivation, self-efficacy, and anxiety—into the theoretical modeling of ESP course design. The finding that students perceive English as vital for their careers but lack the confidence to use it suggests the need for more comprehensive learner-centered ESP theories that balance skill development with emotional readiness.

Future Research Implications

Several promising avenues for further inquiry have emerged from this research. First, longitudinal studies should be conducted to evaluate the long-term impact of ESP curriculum changes on students' academic performance and career outcomes. Second, comparative studies



between students in different vocational programs—such as aquaculture, veterinary studies, or agricultural engineering—could illuminate disciplinary variations in English language needs.

Third, further exploration is needed into the effectiveness of specific pedagogical interventions, such as flipped classrooms, scenario-based learning, and project-based tasks in ESP contexts. Finally, more research is warranted to assess the impact of integrating digital tools and social media into ESP instruction, particularly for Generation Z and Alpha learners who are already immersed in technology-rich environments.

Overall, the research presented in this study represents a critical step toward aligning English language instruction with the specific professional contexts of vocational students—particularly in regions where educational inequality persists. By documenting students' needs, perceptions, and preferences, this study not only informs evidence-based curriculum development but also advances the broader goals of equity, employability, and educational relevance. The implications drawn from the findings underscore that responsive, contextualized, and forward-thinking ESP instruction can transform not just language classrooms, but also the professional futures of the learners they serve.

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