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Scaffolding Communicative Competence in Multidisciplinary ESP Classrooms: Evidence from Indonesian Higher Education

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Abstract

The growing demand for English communication in academic and professional settings has highlighted the importance of teaching English for Specific Purposes (ESP), which combines language learning with disciplinary knowledge. This study investigated the scaffolding techniques in communicative ESP teaching in the multidisciplinary university contexts in South Tangerang, Indonesia. This qualitative case study was conducted using data collected from ESP lecturers and undergraduate students in four academic disciplines, namely Law, Management, Computer Science and Communication Studies, through classroom observations, semi-structured interviews and document analysis. The data were thematically analysed to identify key scaffolding practices and their effect on communicative learning. Findings showed that lecturers used a variety of scaffolding strategies, including bridging prior knowledge, contextualising disciplinary content, modelling language use, guided interaction, collaborative learning and gradual release of responsibility. These practices helped students from diverse disciplinary backgrounds engage more in communicative tasks, feel more confident using English, and make meaningful connections between disciplinary knowledge and language learning. Students in Law discussed legal concepts and case analysis; Management students discussed business communication; Computer Science students discussed technical processes and digital technologies; and Communication Studies students discussed media and interpersonal communication skills. Scaffolding across disciplines helped develop communicative competence and participation in discipline-specific English interactions. The results showed that scaffolding effectively bridges language learning and disciplinary knowledge in multidisciplinary ESP classrooms. The findings provide qualitative evidence from Indonesian higher education and practical implications for ESP pedagogy to enhance communicative competence through scaffolded instruction.

Keywords: English for Specific Purposes, Scaffolding, Communicative Competence, Multidisciplinary Classrooms, Higher Education

Introduction

With the increasing globalisation of education and employment, university graduates worldwide are increasingly required to have a strong command of English. In higher education, English is no longer viewed as a general communication tool but as a discipline-specific resource that enables students to access academic knowledge, engage with professional communities and communicate in the workplace. Thus, English for Specific Purposes (ESP) has become an important part of higher education, especially in countries where English is not the mother tongue, and students need English skills specific to their academic specialisation and future employment. (Fatima, 2022; Moahmad & Tilfarlioğlu, 2023).

ESP has been applied in a wide range of academic disciplines in Indonesia, including law, management, Communication, and computer sciences. However, despite this growth, many university students still struggle to communicate effectively in English because of limited linguistic proficiency and limited access to authentic situations in which to use the language. Such challenges are especially evident in ESP classrooms, where students are expected to acquire disciplinary knowledge and develop their English communicative competence simultaneously.

Communicative Language Teaching (CLT) is widely promoted as a pedagogical approach because it promotes meaningful language use and interaction. (Ali Alshareef, 2024). However, communicative activities alone may not be enough for learners with low English proficiency. In this sense, scaffolding has been an effective instructional strategy. Scaffolding is a term from sociocultural theory to describe temporary support given by instructors or peers that enables learners to do things they could not do on their own until they can do them on their own (Nguyen, 2024). Scaffolding, such as bridging prior knowledge, contextualising content, modelling the use of language, guided practice and collaborative interaction, can support both language development and disciplinary learning (Arora et al., 2024; Nguyen, 2022).

Consistent research evidence exists on the effectiveness of scaffolding in language teaching. Research has shown that scaffolding effectively develops learners' participation, understanding, confidence and academic achievement in English language classrooms. (Arora et al., 2024; Sarmiento-campos et al., 2022). Scaffolding supports students in ESP contexts in comprehending technical vocabulary, engaging in task-based activities, and enhancing their academic communication skills. (Israilova, 2026; Mariotti, 2024).

Several scholars have studied the relationship between scaffolding and communicative competence. Their research found that scaffolded teaching results in learners being actively engaged in interacting, negotiating for meaning and progressively developing accuracy and fluency in language. (Louiza, 2023; Sahnan & Daulay, 2025; Sarmiento-Campos et al., 2022). Besides, scaffolding in communicative ESP instruction has been found to improve students' English language skills for real-life professional and academic settings. (Hsu, 2025; Jolita et al., 2025).

However, previous investigations have been limited to single disciplines, such as engineering students, nursing students, medical students or business majors. Furthermore, most studies have focused on scaffolding as a generic pedagogical strategy or in traditional English

language classrooms, not in communicative ESP instruction. (C. Nguyen, 2024; T. U. N. Nguyen & Asmaa, 2023; Sarmiento-Campos et al., 2022). As a result, little attention has been paid to how scaffolding functions across several disciplinary contexts where learners have different academic backgrounds, communicative needs and professional ambitions.

The literature shows the benefits of scaffolding in language learning and ESP teaching; however, gaps remain. First, previous studies have mainly been conducted within single-discipline ESP contexts and, as such, have paid little attention to comparative studies across academic disciplines within a single institutional context. Second, most research has focused on language outcomes such as vocabulary acquisition, reading ability or academic achievement. At the same time, relatively few studies have examined how scaffolding contributes to the development of communicative competence in ESP classrooms. Third, research on communicative ESP teaching in Indonesian higher education remains limited, particularly studies that investigate and compare ESP practices across disciplinary contexts such as Law, Management, Communication Studies and Computer Science. Fourth, qualitative evidence on the experiences of lecturers and students engaged in scaffolded communicative ESP instruction, and on the role of specific scaffolding techniques in facilitating the integration of language learning and disciplinary knowledge across disciplines, remains scarce. Closing these gaps matters because the pedagogical needs, communicative practices and disciplinary discourses of students in Law, Management, Communication Studies and Computer Science may vary considerably and may require different scaffolding approaches to support communicative English development. This study makes several new contributions to the ESP and language-teaching literature, including examining the use of scaffolding techniques in multidisciplinary ESP classrooms rather than in a specific academic discipline and exploring the interface of scaffolding, communicative language teaching and ESP teaching. It offers an integrated perspective not widely addressed in the literature. It provides context-specific evidence from Indonesian higher education, particularly universities in South Tangerang, where empirical studies on communicative ESP pedagogy remain limited.

This study investigated the use of scaffolding techniques in communicative teaching of English for Specific Purposes (ESP) for multidisciplinary university students in South Tangerang, Indonesia. This paper examines the role of scaffolding in integrating language learning and disciplinary knowledge, enabling the development of communicative competence and facilitating students' participation in ESP learning activities. This study answered the following research questions: (1) How is the scaffolding technique implemented in communicative ESP teaching in multidisciplinary higher education classrooms in South Tangerang, Indonesia? (2) What is the role of scaffolding techniques in the formation of students' communicative competence in various academic disciplines? (3) What are the students' and lecturers' perceptions of the role of scaffolding in connecting English language learning to disciplinary knowledge? This study aims to answer these questions and provide theoretical and pedagogical insights into effectively integrating scaffolding practices into communicative ESP instruction in Indonesian higher education.

Review of Literature

English for Specific Purposes (ESP) focuses on developing communicative competence, i.e., the ability to communicate effectively in academic, social and professional situations (Id & Zhou, 2024; X. Li & Fu, 2021). Communicative Language Teaching (CLT) promotes learners to

be actively involved in real interaction, discussion, presentation and collaborative tasks in the disciplines (Lee et al., 2023; Salmanova, 2025). Previous studies have shown that combining content knowledge with communication activities helps learners increase confidence, participation and language use in real situations (Suratullah et al., 2023). However, many ESP studies have focused on single disciplines, whereas multidisciplinary ESP classrooms, with students from diverse academic backgrounds and communication needs, have been less studied. Scaffolding is a method of providing temporary support to help learners accomplish tasks that they cannot yet accomplish on their own (Louiza, 2023; Nahariah et al., 2020; Rahmi et al., 2024; Sarmiento-Campos et al., 2022). It is based on Vygotsky's Sociocultural Theory and the Zone of Proximal Development (ZPD). In communicative ESP classes, scaffolding techniques such as modelling, guided practice, feedback, collaboration, and gradual release of responsibility help students to connect disciplinary knowledge with English communication skills (Sahnan & Daulay, 2025). Although scaffolding is important (Reiser, 2002), little qualitative research examines how scaffolding supports communicative competence in multidisciplinary ESP classrooms in Indonesian higher education. Therefore, this study uses a qualitative case study to examine how scaffolding techniques are implemented in communicative ESP classes at a university in South Tangerang, Indonesia.

Methodology

This qualitative multiple-case study investigated the implementation of contextualised scaffolding in teaching communicative English for Specific Purposes (ESP) in multidisciplinary university classrooms in South Tangerang, Indonesia. This study used a qualitative approach to explore lecturers' and students' experiences and classroom interactions in real learning conditions. (Almansour & Almoayad, 2024). Four ESP lecturers from the disciplines of Law, Management, Computer Science, and Communication Studies, together with twenty undergraduate students (five from each discipline), were purposively selected because of their direct involvement in ESP learning and teaching. We collected data over three months through classroom observations, semi-structured interviews, and document analysis. We observed fourteen classroom meetings in each discipline to examine scaffolding strategies, lecturer–student interactions, learner participation, communicative activities, and the integration of disciplinary knowledge into English instruction. The semi-structured interviews used five open-ended questions to explore participants' perceptions of scaffolding practices, communicative competence development, disciplinary integration, learning experiences, and instructional effectiveness. Document analysis of ESP modules, teaching materials, and students' assignments supplemented the observational and interview data. The team analysed the data using Braun and Clarke's (2021) thematic analysis procedures. The team first repeatedly reviewed observation notes, interview transcripts, and documents to familiarise the team with the data, then conducted open coding to identify trends in scaffolding practices, communicative competence, and disciplinary learning. The team grouped similar codes into categories and refined them into overarching themes aligned with the research questions and sociocultural theory. Methodological rigour was achieved through data triangulation from observations, interviews and documents; member checking through sharing interview summaries with participants; and systematic documentation of data collection, coding and analytical decisions, complemented by researcher reflexive notes. Transferability was supported through rich descriptions of the research context, participants and instructional practices to ensure the trustworthiness and credibility of findings.

Finding and Discussion

The Use of Scaffolding in Communicative ESP Instruction

The results suggest that scaffolding was provided through a systematic series of instructional supports, including bridging prior knowledge, contextualising learning resources, modelling language use, guided interaction, and gradually transferring responsibility. Together, these practices gave students from diverse disciplinary backgrounds opportunities to participate in communicative ESP learning and gradually develop their communicative competence. The findings suggest that scaffolding is more than instructional support; it is a pedagogical bridge between disciplinary knowledge and English language communication. The first finding was that lecturers often linked new ideas in English to students' prior disciplinary knowledge. This aligns with Vygotsky's theory of the Zone of Proximal Development (ZPD), which holds that learning is most effective when new knowledge connects to prior knowledge (D. Liu, 2024; Rahman, 2024). Lecturers reduced the cognitive load of learning new language structures and technical vocabulary by drawing on students' prior disciplinary experience (Hendrayana & Mutaqin, 2025) in Computer Science, Business Administration, Engineering and Communication Studies. This finding suggests that prior disciplinary knowledge scaffolded language learning. Rather than learning English in a vacuum, students could apply new language ideas to familiar academic and work settings. This integration aligns with ESP principles that emphasise the importance of disciplines' communication needs (Chan & Win, 2023). The findings thus provide further evidence that language instruction is meaningful when it relates to learners' academic identities and professional aspirations (Babadi et al., 2024; Ibnu Fitrianto & Muhammad Farisi, 2025).

The findings also underscored the role of contextualised learning materials in promoting communicative ESP learning. Students engaged with English in authentic disciplinary contexts through workplace scenarios, case studies, technical documents, presentations and project-based activities. Communicative Language Teaching (CLT) holds that authentic communication underpins meaningful language development. (Ballman & Larsen-Freeman, 1988; Han, 2022; Saad & Almefleh, 2023). Contextualising the learning materials enabled students to view English as a practical tool for professional communication, not merely as an academic subject.(Kamal & Wani, 2025; Marmet, 2023). This enhanced relevance increased learner engagement and motivation, as communicative tasks reflected real-world situations they would most probably encounter in their future careers. Contextualization is also especially relevant in multidisciplinary classrooms with students from different academic backgrounds. (Dechavez, 2024). The lecturers used cross-disciplinary materials to create an inclusive learning environment that addressed different learners' needs while still meeting the communicative goals. (Dechavez, 2024; Picardal & Sanchez, 2022). This finding extends previous work in ESP by showing the effectiveness of contextualised scaffolding across a variety of learning contexts.

Another important finding concerns the role of modelling in teaching communicative ESP. Before students were expected to perform independently, lecturers modelled language structures, professional vocabulary, presentation techniques and interactional strategies. This result is consistent with scaffolding theory, which emphasises the importance of expert demonstration in novice learning. Modelling provides learners with observable examples of successful performance and makes abstract communicative expectations more explicit. (Barrot, 2026). Students could recognise communicative patterns through observation before

they could use them independently (Mahan, 2022; Zadorozhnyy & Lee, 2025). In ESP contexts, modelling can be especially useful since students usually lack any prior experience of discipline-specific communication in English. (Rexhepi & Rexhepi, 2021). The professional language of the lecturers helped students master not only the linguistic forms but also the communicative conventions of their disciplines. (Dudley-Evans, T., & St John, 2023). It modelled less uncertainty, more confidence and allowed engagement in communicative tasks.

The findings also stress the importance of guided interaction through pair work, group discussions, role-plays and collaborative problem-solving activities. Lecturers strategically helped the students by asking questions, offering prompts, and providing feedback and clarification. This finding captures the sociocultural tenet that learning is social. Students co-construct knowledge and communicative competence through interactions with more knowledgeable others and peers (Dai & Dai, 2024). Students had opportunities to negotiate meaning, practice language, and collaboratively construct understanding through guided interaction. The communicative activities encouraged learners to express diverse perspectives and share experiences relevant to their fields of study. These interactions not only enhanced students' language proficiency but also developed their ability to communicate in discipline-specific contexts, a competence highly valued in today's professional settings.

Finally, students were expected to discuss, present and complete activities to solve problems independently in English. The primary aim of scaffolding is to develop learner autonomy. (Chueng & Heng, 2025). As their communicative competence grew, external help was gradually replaced by self-regulation and independent performance. (Sahnan & Daulay, 2025). This move from supported participation to independent communication is an example of effective scaffolding within the Zone of Proximal Development. (Alghamdy, 2024; Rahman, 2024). This finding also aligns with the current goals of ESP, which emphasise equipping learners for real academic and professional communication outside the classroom. Students' ability to perform communicative tasks independently indicates that scaffolding effectively supported them in moving from assisted learning to real language use.

Overall, these findings illustrate scaffolding as a multidimensional bridge between disciplinary knowledge and the development of communicative English. This study presents an instructional sequence that begins with activating prior knowledge and ends with independent communication. In the process, learners progressively turned their disciplinary knowledge into communicative competence. The particularly important contribution of this study is evidence of the continued effectiveness of scaffolding in a multidisciplinary ESP classroom. The results suggest that scaffolded communicative instruction can be adapted to different learner backgrounds, while previous studies have mostly focused on single-discipline settings. This suggests that scaffolding is a flexible pedagogical framework that can support language learning across a range of disciplinary contexts in higher education. The findings generally support sociocultural views of learning and show that communicative competence is developed through guided participation, real interaction and increasing autonomy. Therefore, scaffolding is an important pedagogical strategy to connect language and discipline in contemporary ESP teaching.

The contribution of scaffolding to the development of communicative competence across the disciplines

The results show the positive effect of scaffolding techniques in developing students' communicative competence across various academic disciplines. The results showed that scaffolded communicative ESP instruction helped learners acquire linguistic knowledge and broader communicative abilities needed for academic and professional interaction. The results show advances in four interrelated dimensions based on Canale and Swain's (1988) framework of communicative competence: linguistic competence, sociolinguistic competence, discourse competence and strategic competence. The findings demonstrated that students benefited from scaffolded instruction and enhanced their mastery of discipline-specific vocabulary, grammatical accuracy, and professional terminology. The improvement is attributed to the sustained support offered by the lecturers through modelling, guided practice, contextualised activities and repeated exposure to target language forms. Within sociocultural theory, language acquisition occurs through interaction with more capable others, who provide temporary scaffolding within learners' Zone of Proximal Development (ZPD) (Irshad et al., 2021). This study involved lecturers helping students understand and use subject-specific language in their discipline. Modelling and planned communicative activities helped students gradually internalise linguistic forms and use them more independently (Sutrisna, 2025). The findings are particularly significant in ESP settings, because learners usually struggle with the specialised vocabulary of the discipline. Computer Science, Management, Law and Communication Studies students need specialised terminology that differs greatly from discipline to discipline. Scaffolding allowed students to connect new vocabulary to their prior disciplinary knowledge, leading to more successful language and communication acquisition (Bittermann et al., 2023; Tian et al., 2026).

Another important result concerns the development of sociolinguistic competence. Students learned when to use appropriate language in academic and professional settings, including distinguishing between formal and informal language use. (Fariha, 2023). This finding highlights the importance of communicative ESP instruction in preparing learners for real-life communication. (Hilderbrant, 2024). Students engaged in scaffolded activities, such as role-plays, simulations, presentations and professional communication tasks, to introduce them to authentic communicative situations requiring contextually appropriate language choices. (Zulianingrum, 2025). As a result, learners developed a deeper understanding of how communication changes according to audience, purpose, and professional context. Each disciplinary classroom had unique features that supported learners' sociolinguistic growth. Students' understanding of professional discourse conventions grew through exposure to communicative practices related to their academic subjects. (Kaldarova, 2024). This experience made it clear to students that proficient language use in social and professional contexts is just as important to effective communication as grammatical correctness. (D. Li & Zhang, 2022; Siregar, 2025).

The results also indicated that scaffolding facilitated the development of discourse competence. Particularly their ability to organise and communicate ideas coherently. Participants improved at giving presentations, participating in discussions, and writing explanations. This result can be explained by the modelling and guided practice used in the communication activities. Lecturers provided examples of effective communication structures and helped students learn to organise information logically. Through repetition and

feedback, learners gained more control over organising ideas and using cohesive devices. Discourse competence is especially important in learning ESP because students need to express complex disciplinary concepts clearly and systematically. (Hassan et al., 2023). The results suggest that scaffolding helped bridge the gap between content knowledge and communicative expression. (Guo et al., 2023; Mahan, 2022; Rahmawati, 2024). Students were more able to transfer disciplinary knowledge into coherent oral and written communication. This enhanced their communication skills in an academic and professional setting.

The study also found that scaffolding helped develop strategic competence. Students employed different communication strategies, including paraphrasing, requesting clarification, confirming understanding and negotiating meaning collaboratively (Liu, X. et al., 2024). These strategies helped learners to keep the conversation going when they had language problems. This finding aligns with the principles of communicative language teaching, which emphasises effective communication over perfect linguistic accuracy. Guided interaction and collaborative activities enabled students to compensate for gaps in their language knowledge and still participate actively in communication (Sahnan & Daulay, 2025; Salih, 2022). Strategic competence development is especially useful in multidisciplinary ESP classes where students often discuss complex concepts that go beyond their immediate linguistic powers (Abdukadirov et al., 2026). Scaffolding gave learners “practical tools” to overcome communication barriers and maintain interaction (Bai et al., 2026). As a result, students became more resilient communicators who could handle communicative challenges with greater confidence.

The results also showed significant affective benefits associated with scaffolding beyond the four dimensions of communicative competence. Many students reported greater confidence in expressing their disciplinary knowledge in English, and the scaffolded activities helped to reduce communication anxiety. (Guo et al., 2023; Rahmawati, 2024). This finding supports the notion that scaffolding plays both an affective and a cognitive role in language learning. (Pan et al., 2023). Lecturers provided systematic support to create a safe learning environment where students could experiment with language without fear of failure. The gradual transition from supported practice to independent performance allowed learners to experience success at each stage of learning, and to develop self-confidence and motivation. The reduction of communication anxiety is especially relevant in ESP contexts as students may often be intimidated when they are required to talk about specialised disciplinary content in a second language. Scaffolding helped overcome these challenges by breaking down complex tasks into manageable steps and providing adequate support throughout the learning process. (Anisah, 2025; Arora et al., 2024).

The results generally infer that scaffolding provides a complete mechanism for developing communicative competence in multidisciplinary ESP classrooms. Scaffolding supported not only linguistic knowledge but also the concurrent development of linguistic, sociolinguistic, discourse and strategic competencies. (Louiza, 2023). The findings suggest that guided participation, contextualised practice, collaborative interaction and gradual independence foster communicative competence. (Basher et al., 2025; Rahmawati, 2024). The present study makes a significant contribution by providing evidence that scaffolding effectively supports communicative competence across a variety of academic disciplines. (Arora et al., 2024; Guo et al., 2023; Montgomery et al., 2022). While previous studies have mainly looked at learners

from a single disciplinary area, the results of the present study show that scaffolded communicative ESP instruction can meet the diverse linguistic and professional requirements of learners from a multidisciplinary background. Thus, scaffolding is a flexible and inclusive pedagogical framework that can connect disciplinary knowledge and communicative English proficiency in higher education contexts. (Mahan, 2022; Sahnan & Daulay, 2025). Overall, the findings support the notion that scaffolding is not only a form of support but also a transformative pedagogical approach that empowers learners to become confident, competent and autonomous communicators in their academic and professional communities.

Students' and lecturers' perceptions of scaffolding in the relationship between English language learning and disciplinary knowledge?

The results show that both students and lecturers consider three scaffolding strategies most effective for teaching ESP communicatively. These strategies are: contextualisation of discipline-specific content, modelling of communicative performance and guided collaborative interaction. The findings suggest that effective ESP teaching is not only about linguistic support but also about pedagogical practices which combine language learning with disciplinary knowledge and authentic communication and social interaction (Pan et al., 2023). Other scaffolding strategies, such as pre-teaching vocabulary, questioning techniques, visual aids and structured feedback, also contributed positively to learning (Mukhtar et al., 2025). However, the three dominant strategies had the strongest influence on learner engagement, communicative competence and meaningful participation. This finding highlights the importance of selecting scaffolding strategies responsive to the cognitive, linguistic, and social aspects of learning (Arora et al., 2024; Gao et al., 2025).

First, both students and lecturers reported that authentic learning tasks related to the learners' academic disciplines increased motivation, participation and perceived relevance. This finding aligns with the basic postulates of ESP: language teaching should be adapted to learners' specific academic and professional needs. (Blažević, 2023). Lecturers embedded English learning in authentic disciplinary contexts, helping students see language as a tool for accomplishing meaningful tasks rather than as an academic subject. (Kaldaras et al., 2024). From a socio-cultural perspective, contextualization facilitates learning by linking new linguistic knowledge to existing cognitive structures. (Karki & Karki, 2024). Students could apply their subject knowledge while communicating in English. This reduced cognitive overload and allowed deeper understanding, as learners could focus on language use in contexts they already knew.

This is an important finding in the study's multidisciplinary setting. Computer science, business administration, engineering and communication studies students have different professional goals and communication needs. Contextualised instruction addressed these differences by letting learners manipulate field-relevant content and engage in shared communicative activities. (Gibbons, 2014; Han, 2022). Thus, contextualization linked language learning and disciplinary knowledge. (Rababah, 2022). The results also align with Communicative Language Teaching (CLT), which favours meaningful communication in real contexts. Communication tasks were more motivating because they represented real-world situations they would face in academics and employment. (Dumitru & Halpern, 2023). This authenticity helped drive engagement and encourage continued language use. (Frantz, 2025).

The second most effective scaffolding strategy identified by participants was modelling of communicative performance. Students stated that examples of presentations, discussions, professional conversations and written communication gave concrete guidance on what was expected. (Rowland, 2023). This finding is consistent with one of the basic tenets of scaffolding theory, namely that learning is enhanced when learners observe expert performance before attempting tasks on their own. Modelling made visible and accessible the invisible communicative processes that lecturers were engaged in(Eklund & Isotalus, 2024; Rowland, 2023). Students could learn not only language structures and vocabulary but also interactional strategies, discourse organisation and conventions of professional communication.

Bandura's Social Learning Theory (Firmansyah & Saepuloh, 2023) explains the effectiveness of modelling. People learn by observing and imitating competent models. In the ESP classroom, lecturers were effective communicators, demonstrating correct language use in disciplinary contexts. Gradually, students internalised these communicative practices through scaffolded participation and use. Results also show reduced uncertainty and communication anxiety (X. Liu, Jiao, et al., 2024). Many learners enter ESP classes with low confidence in using English, particularly when discussing complex subject concepts. The success examples offered a clear framework for communication and boosted their willingness to participate in communicative activities. Modelling was also required to develop communicative competence, showing how language is used in real professional situations (Hall & Montgomery, 2023). Students learned not just what to say but how to say it within the context of particular disciplinary communities. The modelling was thus both linguistic and professional preparation. The third highly cited and effective strategy is guided collaborative interaction. Group discussions, peer work and problem-solving were perceived as useful in encouraging active language use and knowledge sharing among students from different disciplines (Alzubi et al., 2024). The findings strongly support sociocultural theory, which views learning as socially mediated (Bearman & Ajjawi, 2023). Knowledge is not an individual possession, but a social construct. Guided collaborative activities gave learners opportunities to negotiate meaning, exchange ideas, solve problems and communicate in authentic ways (Rohmaniyah & Asih, 2024).

Classroom observations took place at different times in each discipline, and the learning activities reflected the communication practices and academic content of each discipline. The classrooms were grouped by discipline to support meaningful interaction and allow learners to discuss topics related to their studies. Communication was a process of language learning and disciplinary knowledge exchange, with knowledge, experience and perspective shared (Houten, 2023). Students in the Law classroom discussed legal cases, regulations, and ethical issues. They practised explaining legal concepts, making arguments and using legal terminology in English. The Management class students were working on business topics like leadership, marketing and problem-solving. They spoke their minds, debated business scenarios and provided solutions using professional business language. In the Computer Science classroom, students discussed programming, software development and technology. They explained problem-solving processes and taught technical concepts. It helped them develop technical and communicative skills. In the Communication Studies classroom, students discussed media, public relations and communication practices. They discussed communication issues, targeted messages to different audiences and actively participated in

discussions. Across all disciplines, students were expected to explain ideas, clarify meaning and interact with their peers. These interactions facilitated the development of communication competence such as linguistic competence, discourse competence, sociolinguistic competence and strategic competence. The collaborative nature of classroom activities also helped reduce anxiety, as students shared communication responsibilities and received support from their peers. (Alzubi et al., 2024). In this way, classroom interaction led to both English language development and the acquisition of specific knowledge. (Farida et al., 2022). Moreover, guided interaction provided opportunities for timely feedback and support from the lecturers. Lecturers scaffolded communication by questioning, prompting and asking for clarification, keeping learners engaged. The balance between support and independence assisted the effectiveness of collaborative learning activities.

Participants identified the most prominent strategies as contextualization, modelling and guided interaction and identified several complementary scaffolding techniques. For example, pre-teaching vocabulary improved understanding of technical terms for computer science students (Nndwamato & Lambani, 2025). Questioning techniques promoted critical thinking and interaction. Visual aids supported understanding of complex concepts. Structured feedback supported ongoing development. These methods supported the core scaffolding methods and improved performance. They demonstrate that effective scaffolding is a network of interrelated supports, not a single teaching technique (Q. Nguyen, 2022). It is suggested that scaffolding is central to communicative ESP teaching in multidisciplinary contexts of higher education (Mariotti, 2024). Evidence on the effectiveness of contextualization, modelling and guided interaction indicates that communicative competence develops best when language learning is contextualised in meaningful disciplinary content (Montgomery et al., 2022; Naseer & Qammar, 2024), supported by expert modelling and practised through collaborative interaction (Randall, 2016).

The results also show that scaffolding helps integrate language learning and disciplinary knowledge. (Mohammadi & Zandi, 2023; Nguyen, Q. 2022; Nguyen et al., 2022). By connecting to prior knowledge, contextualising content, modelling language use, guiding interaction, and gradually transferring responsibility, learners move from supported participation to independent communication. This path illustrates the basic tenets of sociocultural learning. It shows how communicative competence develops through participation in authentic disciplinary practices with support. This study makes an important contribution by identifying the scaffolding techniques most influential in multidisciplinary ESP classrooms: contextualization, modelling and collaborative interaction. Learning in a single discipline has been a dominant approach in previous studies. The findings suggest that these approaches remain effective in diverse classrooms with different academic backgrounds and communication needs. (Gulzar et al., 2024). To conclude, the results suggest that scaffolding is not only instructional support but a transformational pedagogical framework that enables learners to link disciplinary expertise and communicative skills in English. Well-designed scaffolded instruction helps students become more engaged, confident, and able communicators within their academic and future professional communities.

Conclusions

The study found that scaffolding is crucial for supporting communicative ESP learning in multidisciplinary higher education classrooms. Both students and lecturers saw scaffolding as

an effective way to link English language learning to disciplinary knowledge. Through scaffolded instruction, students acquired discipline-specific concepts and improved their English communication skills. The results showed that scaffolding helped students to develop four components of communicative competence: linguistic, sociolinguistic, discourse and strategic competence. Students developed their use of specialised and professional vocabulary, learned when and how to use language appropriately in academic and professional settings, organised their ideas more effectively and developed strategies to overcome communication challenges. They also found scaffolding to help lower anxiety and build students' confidence in using English. Both students and lecturers agreed that scaffolding helped make ESP learning more meaningful and relevant.

Students viewed English as a resource for academic and professional communication, and lecturers saw scaffolding as a key way of supporting learners of different proficiency levels and disciplinary backgrounds. The three most effective scaffolding techniques were contextualising discipline-specific content, modelling communicative performance, and guided collaborative interaction. Contextualised tasks related to their fields of study increased students' motivation and involvement in learning English. The modelling was well illustrated to support effective communication and collaborative activities and was seen to foster active language use, knowledge sharing and interaction between students from different disciplines. The results suggest that scaffolding may help students progress from supported learning to independent communication. Scaffolding plays a crucial role in developing communicative competence in ESP classrooms by integrating language learning with disciplinary content and authentic communication, and it offers valuable guidance for ESP teaching in higher education.

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