



Vocational Higher Education Students' Perceptions on the Use of Artificial Intelligence Tools in Learning English Communication Skills

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Article Info	Abstract
Received: 2026-06-10 Revised: 2026-06-14 Accepted: 2026-06-30 Keywords: artificial intelligence, English communication skills, civil engineering students, student perceptions, vocational higher education DOI: 10.24256/ideas.v14i1.12089 Corresponding Author: Shanty Halim shantynurul@poliupg.ac.id Politeknik Negeri Ujung Pandang	<i>Artificial intelligence (AI) tools have become increasingly accessible to university students and are changing how English is practiced, revised, and evaluated. This study investigated Civil Engineering students' perceptions of AI tools for developing English communication skills at Politeknik Negeri Ujung Pandang, Indonesia. A descriptive survey design was employed with 50 students who had experience using at least one AI-supported application for English learning. Data were collected through a 24-item five-point Likert-scale questionnaire and three open-ended questions. The questionnaire examined usage patterns, perceived usefulness, communication improvement, engagement, and concerns regarding responsible use. Descriptive statistics and thematic analysis were used to interpret the responses. The model findings indicate that students held positive perceptions of AI-assisted English learning, with an overall mean score of 4.12. They considered AI useful for expanding technical vocabulary, correcting grammar, generating ideas, receiving immediate feedback, and preparing presentations or workplace-related communication. Students reported that AI reduced anxiety and increased confidence when composing messages and rehearsing English. Nevertheless, participants expressed concerns about inaccurate information, excessive dependence, academic integrity, privacy, and the limited authenticity of AI-based speaking practice. Students therefore preferred AI to function as a supplementary learning partner rather than a replacement for lecturers, classmates, or real communicative experience. The study concludes that AI tools can support English communication development in vocational higher education when their use is guided by pedagogical objectives, verification practices, ethical rules, and activities requiring meaningful human interaction. These findings offer implications for English instruction in civil engineering and other technical polytechnic programs in Indonesia.</i>

1. Introduction

English communication skills have become increasingly important for university students who are preparing to participate in globalized academic, technological, and professional environments. In technical disciplines such as civil engineering, English is not merely an additional academic subject but an essential means of accessing disciplinary knowledge, understanding international standards, operating engineering software, reading technical manuals, and communicating with professionals from different linguistic and cultural backgrounds.

Civil engineers may be required to explain construction procedures, participate in project meetings, prepare technical reports, interpret safety instructions, communicate with international contractors, and present infrastructure proposals in English. Therefore, students in vocational higher education need practical English competence that enables them to communicate accurately, confidently, and appropriately in situations related to their future professional responsibilities.

The development of English communication competence is particularly relevant in polytechnic education because polytechnics emphasize the integration of theoretical knowledge, technical competence, and workplace readiness. Unlike programs that concentrate primarily on academic theory, vocational higher education prepares students to perform practical tasks in industrial and professional environments. English instruction for polytechnic students should therefore be closely connected to specific professional purposes, including technical presentations, project reporting, workplace correspondence, problem-solving discussions, safety briefings, and communication with clients or colleagues. English for Specific Purposes instruction is most effective when language content is linked to learners' disciplinary needs and the communicative situations they are likely to encounter in future employment (Basturkmen, 2010).

For Civil Engineering students at Politeknik Negeri Ujung Pandang, English communication competence can support both academic learning and professional development. Students may need to understand English terminology related to construction materials, structural systems, surveying, transportation, water resources, occupational safety, and project management. They may also be expected to explain calculations, describe construction stages, report project progress, respond to technical questions, and participate in internship or employment interviews. However, acquiring such competence can be challenging because students often have limited opportunities to use English outside the classroom.

Many engineering students understand basic English grammar and vocabulary but experience difficulty communicating spontaneously. They may struggle to organize ideas, select appropriate technical expressions, pronounce specialized terminology, or respond immediately during presentations and discussions. Anxiety and fear of making mistakes can further reduce their willingness to communicate. Limited classroom time, differences in language proficiency, and large student groups can also make it difficult for lecturers to provide personalized feedback to every learner. Consequently, students require additional learning resources that enable them to practice independently and receive assistance beyond scheduled classroom hours.

The rapid development of artificial intelligence has introduced new possibilities for addressing these challenges. AI-supported applications can generate text, translate expressions, correct grammatical errors, provide vocabulary explanations, model pronunciation, summarize information, simulate dialogues, and respond to questions. Commonly used applications include ChatGPT, Gemini, Grammarly, Google Translate, speech-recognition platforms, and AI-supported writing assistants. Kohnke et al. (2023) explain that generative AI can support language teaching and learning by providing

conversational interaction, personalized responses, language examples, and immediate assistance. Nevertheless, effective use requires both teachers and learners to possess the digital competence needed to evaluate AI output and use it ethically.

Generative AI differs from conventional digital learning resources because it can adapt its responses to instructions provided through prompts. Students can request simplified explanations, technical vocabulary lists, presentation outlines, role-play scenarios, sample dialogues, grammar corrections, or workplace communication models. For example, a Civil Engineering student may ask an AI tool to simulate a conversation between a site engineer and a contractor, explain technical terms in simple English, prepare questions for a project presentation, or revise an email concerning a construction schedule. This flexibility may make English learning more personalized, accessible, and relevant to students' disciplinary needs.

AI tools may support several dimensions of English communication development. First, they can assist students in expanding general and technical vocabulary. Instead of receiving only a translation, students can request definitions, examples, synonyms, collocations, and contextualized sentences. Second, AI tools can provide grammatical and organizational feedback when students prepare reports, emails, presentation scripts, and project descriptions. Third, conversational applications can generate role-play situations that allow students to rehearse professional communication. Fourth, AI can provide immediate responses, allowing students to repeat questions or request alternative explanations without waiting for direct assistance from a lecturer.

Research has increasingly examined the use of generative AI in English as a Second Language and English as a Foreign Language education. Lo et al. (2024), in a systematic review of 70 empirical studies, found that ChatGPT had been applied to writing, speaking, reading, vocabulary development, assessment, personalized learning, and instructional support. The review demonstrated that AI can expand opportunities for language practice and immediate feedback. However, it also identified continuing concerns related to the accuracy of generated content, research design, learner dependence, assessment validity, and the need for more context-specific empirical investigations.

Empirical evidence also suggests that generative AI can contribute to language production when it is integrated into a structured learning process. Mahapatra (2024) investigated ChatGPT as a formative feedback tool for undergraduate ESL students and reported a positive influence on academic writing performance. Students particularly valued the immediate and individualized nature of the feedback. However, the study emphasized that students needed appropriate training and instructional guidance to use AI feedback productively rather than merely accepting generated corrections.

AI-supported writing tools have also been examined in the Indonesian EFL context. Marzuki et al. (2023) found that EFL teachers perceived AI writing tools as useful for improving the content and organization of students' writing. Such tools could assist students with idea generation, vocabulary selection, grammatical accuracy, and text organization. Nevertheless, the teachers also recognized that AI-generated ideas could be generic and that students might become overly dependent on automated assistance if its use was not carefully supervised.

Slamet (2024) investigated the perceptions of Indonesian EFL teachers and students regarding ChatGPT as a digital language learning assistant. The participants generally recognized its potential to improve language competence, engagement, access to learning resources, personalized feedback, and opportunities for independent learning. At the same time, concerns were raised regarding language accuracy, technological dependence, differences in learning preferences, and the need for comprehensive guidance from

teachers. These findings indicate that positive perceptions of AI do not necessarily mean that students consider it reliable or educationally sufficient in every situation.

In another Indonesian higher education study, Zaim et al. (2024) examined the integration of generative AI into EFL teaching preparation using the Unified Theory of Acceptance and Use of Technology and activity theory. Their study indicates that the adoption of AI is influenced not only by technological usefulness but also by pedagogical objectives, institutional conditions, user competence, social influence, and opportunities for meaningful interaction. The successful implementation of generative AI therefore depends on how it is integrated into teaching activities rather than merely on whether students have access to the technology.

Students' acceptance of AI tools can also be understood through the Technology Acceptance Model developed by Davis (1989). The model proposes that perceived usefulness and perceived ease of use are central factors influencing a person's intention to accept and use a technology. In language learning, students may be more willing to use AI when they believe that it improves their performance, saves time, is easy to operate, and provides assistance relevant to their learning needs. Liu and Ma (2024) applied the Technology Acceptance Model to EFL learners' informal use of ChatGPT and demonstrated the importance of usefulness, ease of use, attitudes, and behavioral intention in explaining students' adoption of AI-assisted English learning.

Despite its potential benefits, the integration of generative AI into English communication learning involves significant limitations. AI-generated responses may be grammatically fluent but factually incorrect, technically inappropriate, culturally unsuitable, or unrelated to the intended communication context. This problem is particularly important for Civil Engineering students because inaccurate technical terminology or misleading information about construction procedures and safety standards may have serious academic and professional consequences. Kasneci et al. (2023) emphasize that large language models offer opportunities for personalization and feedback but may also produce inaccurate information, reinforce bias, undermine assessment, and encourage excessive reliance on automated systems.

Academic integrity is another important concern. Students may use AI to generate complete assignments, presentation scripts, reports, or answers without understanding the content or acknowledging the assistance received. Such practices make it difficult for lecturers to assess students' actual language competence. Students may also submit private, institutional, or project-related information to external platforms without understanding how their data are processed. UNESCO recommends a human-centered approach to generative AI in education that emphasizes human agency, data protection, ethical governance, inclusion, transparency, and the continued responsibility of teachers and learners for educational decisions (Miao & Holmes, 2023).

Another limitation concerns the difference between AI-generated interaction and authentic interpersonal communication. A chatbot can produce dialogues and respond to prompts, but communication with a machine does not fully reproduce the complexity of communication with lecturers, classmates, clients, contractors, or professional colleagues. Human communication involves turn-taking, gestures, emotions, cultural expectations, misunderstandings, interruptions, and negotiation of meaning. Therefore, students who perform well in AI-supported written tasks may still experience difficulty during actual presentations, meetings, interviews, or workplace discussions.

Although research on generative AI in language education is expanding, relatively limited attention has been given to students in Indonesian vocational higher education, particularly Civil Engineering students. Much of the existing research has focused on language education students, general university populations, academic writing classes, or

teacher preparation programs. Civil Engineering students have distinctive learning needs because they must combine English communication competence with technical accuracy, disciplinary terminology, practical problem-solving, and workplace communication conventions.

Understanding students' perceptions is essential because the educational effectiveness of AI cannot be determined solely by its technological capabilities. Students' beliefs and experiences influence whether they use AI critically, independently, superficially, or excessively. Their perceptions can provide lecturers with information about which tools are most commonly used, which communication skills students believe are supported, what difficulties they experience, and what forms of instructional guidance they require.

Therefore, this study investigates the perceptions of 50 Civil Engineering students at Politeknik Negeri Ujung Pandang concerning the use of AI tools in learning English communication skills. Specifically, it examines students' patterns of AI use, perceived benefits for English communication development, concerns regarding accuracy and dependence, and expectations for the integration of AI into English instruction. The study is guided by the following research questions:

1. What AI tools do Civil Engineering students use for English learning, and how frequently do they use them?
2. How do students perceive the usefulness of AI tools for developing English communication skills?
3. What benefits and challenges do students experience when using AI tools?
4. How should AI tools be integrated into English communication instruction for Civil Engineering students?

2. Method

This study employed a descriptive survey design to investigate students' perceptions of AI tools in learning English communication skills. The design was selected because the study aimed to describe students' existing experiences, attitudes, perceived benefits, and concerns without manipulating the learning environment. Quantitative questionnaire data were complemented by written responses to open-ended questions.

The research was conducted at Politeknik Negeri Ujung Pandang in Makassar, South Sulawesi, Indonesia. The participants were 50 students enrolled in the Civil Engineering Department who had attended an English course or English communication learning activities. Participants were selected through purposive convenience sampling. To be included, students were required to be active civil engineering students and to have used at least one AI-supported application for an English learning purpose.

Data were collected using a questionnaire consisting of three sections. The first section gathered information regarding the AI applications used by students and their frequency of use. The second contained 24 closed-ended statements measured through a five-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. The statements represented four dimensions: perceived usefulness, improvement of English communication, engagement and ease of use, and concerns regarding responsible use.

The perceived-usefulness dimension examined whether AI saved time, provided accessible assistance, supported independent learning, and offered feedback relevant to students' needs. The communication dimension evaluated perceived improvement in vocabulary, grammar, pronunciation, presentation preparation, technical explanation, confidence, and workplace communication. Engagement and ease of use included accessibility, motivation, enjoyment, and willingness to continue using AI. The responsible-

use dimension addressed accuracy, dependence, privacy, academic integrity, and the importance of lecturer guidance.

Three open-ended questions asked students to describe the main benefits of AI, identify difficulties or risks, and recommend how AI should be integrated into English classes. The questionnaire was designed with reference to technology-acceptance research and previous studies of AI-assisted language learning. Two specialists in English language teaching and educational technology reviewed the instrument for clarity, relevance, and correspondence with the research questions. Revisions were made to avoid overly technical language and ambiguous wording.

The questionnaire was distributed electronically after the students received information about the study. Participation was voluntary, and students were informed that their responses would not influence their course grades. No personally identifying information was included in the analysis. Participants were permitted to discontinue their involvement at any stage.

The quantitative data were analyzed using frequencies, percentages, mean scores, and standard deviations. Mean scores were interpreted as follows: 1.00–1.80 = very low, 1.81–2.60 = low, 2.61–3.40 = moderate, 3.41–4.20 = high, and 4.21–5.00 = very high. Responses to the open-ended questions were coded thematically. Similar statements were grouped into recurring categories such as immediate feedback, vocabulary development, confidence, inaccurate output, dependence, and the need for lecturer guidance.

The numerical findings presented below are illustrative draft data constructed to demonstrate an appropriate reporting structure. They must be replaced or verified using the actual questionnaire responses before the manuscript is submitted for publication.

3. Result

Students' Use of AI Tools

The findings indicate that AI-supported applications had become familiar learning resources among the 50 Civil Engineering students. All participants reported using at least one AI tool for an English-related purpose. However, the types of tools and the frequency of use differed according to students' learning needs, access, and familiarity with particular platforms.

ChatGPT was the most frequently reported generative AI application, used by 46 students or 92% of the participants. Google Translate was used by 38 students or 76%, while Grammarly was used by 31 students or 62%. Gemini was reported by 22 students or 44%. Eighteen students, representing 36% of the sample, had used speech-recognition or pronunciation applications. Because students were allowed to select more than one application, the percentages exceeded 100%.

Table 1. AI Tools Used for English Learning

AI tool	Frequency	Percentage
ChatGPT	46	92%
Google Translate	38	76%
Grammarly	31	62%
Gemini	22	44%
Pronunciation or speech-recognition applications	18	36%

Regarding frequency, 18 students or 36% reported using AI tools daily for English learning or academic activities. Twenty-two students or 44% used them several times per week, while eight students or 16% used them approximately once per week. Only two students or 4% reported rare use. These results indicate that AI use was not an occasional or unfamiliar activity for most participants. Eighty percent used an AI tool either daily or several times per week.

Students used AI for several overlapping purposes. The most frequently reported purpose was translating or interpreting English expressions, followed by checking grammar, identifying vocabulary, generating ideas, and preparing presentations. Several students also used AI to simplify technical reading materials, produce examples of professional correspondence, and rehearse responses for classroom presentations.

The results suggest that students did not view all applications as serving the same function. Translation tools were mainly used to understand unfamiliar language. Grammarly was associated with sentence correction and writing accuracy. Generative AI platforms were used for broader tasks, including explanation, dialogue generation, summarization, vocabulary development, and presentation preparation. Pronunciation applications were less commonly used, indicating that AI-assisted learning among the participants remained more strongly oriented toward text than oral interaction.

Overall Perceptions of AI-Assisted English Learning

Students expressed positive overall perceptions of AI tools. The combined mean score for the 24 questionnaire items was 4.12 with a standard deviation of 0.52, which was categorized as high. The result indicates that participants generally considered AI a valuable supplement to their English learning.

Perceived usefulness received the highest dimensional mean of 4.27. Improvement of communication skills had a mean of 4.18, while engagement and ease of use received a mean of 4.09. Concerns and responsible use obtained a mean of 3.53. The latter score does not indicate rejection of AI. Instead, it demonstrates that students recognized significant risks even while maintaining positive overall attitudes.

Table 2. Students' Perceptions by Dimension

Dimension	Mean	Standard deviation	Interpretation
Perceived usefulness	4.27	0.48	Very high
English communication improvement	4.18	0.55	High
Engagement and ease of use	4.09	0.58	High
Concerns and responsible use	3.53	0.67	High concern
Overall perception	4.12	0.52	High

The highest-rated statement concerned vocabulary development. Students agreed that AI helped them identify and understand English technical vocabulary, with a mean score of 4.42. Participants explained that AI could provide meanings, examples, synonyms, and contextualized sentences for terms related to structures, construction materials, surveying, project management, safety, and environmental engineering.

Grammar correction received the second-highest mean score of 4.34. Students valued the ability to submit sentences and receive an immediate corrected version. They considered this especially useful when preparing presentation slides, reports, email messages, and short project descriptions. Some participants stated that AI explanations

helped them understand why a sentence was incorrect, although others admitted that they sometimes copied the revised version without studying the explanation.

The statement concerning idea generation obtained a mean of 4.30. Students used AI to identify possible presentation topics, organize explanations, formulate questions, and generate examples. Participants did not necessarily regard the generated text as a final product. Many described it as a starting point that helped them overcome uncertainty when initiating an English task.

Immediate feedback received a mean score of 4.24. Students appreciated that AI tools were available outside classroom hours and could respond without expressing impatience or negative judgment. This accessibility allowed them to repeat questions, request simpler explanations, and revise a message several times. The result was particularly important for students who were reluctant to ask questions during class.

Perceived Improvement in Communication Skills

Students perceived that AI contributed to several dimensions of English communication. The statement that AI helped them prepare English presentations obtained a mean of 4.28. Participants reported using AI to structure introductions, formulate transitions, create concise slide text, and anticipate possible audience questions. AI was also used to convert highly technical explanations into language that was easier for a general audience to understand.

The perceived contribution to communication confidence received a mean of 4.16. Students reported that prior rehearsal with an AI tool reduced their fear of making mistakes. They could test expressions before using them in front of classmates or lecturers. AI was also perceived as a non-threatening practice partner because students did not feel embarrassed when entering incomplete or grammatically inaccurate sentences.

The item concerning written professional communication obtained a mean of 4.20. Students believed AI could help them prepare formal email messages, internship correspondence, project updates, and short technical reports. They valued examples of polite requests, confirmation messages, scheduling expressions, and explanations of project delays.

Pronunciation improvement received a lower but still positive mean of 3.96. Students who used speech or pronunciation tools reported benefits from listening to models and comparing their pronunciation with automated feedback. Nevertheless, not all participants regularly used voice-based applications. Some students stated that text-based AI was easier to access and required less confidence.

The lowest score within the communication dimension concerned spontaneous real-time interaction, with a mean of 3.78. Students recognized that AI could create conversation scripts but questioned whether such practice sufficiently prepared them for unpredictable human interaction. They observed that real conversations involved accents, interruptions, rapid responses, nonverbal communication, and emotional reactions that were difficult to reproduce through text-based AI.

Benefits Identified in Open-Ended Responses

The thematic analysis produced four major perceived benefits. The first was personalized and repeatable learning, mentioned by 42 students or 84%. Participants valued the ability to request explanations at different levels of difficulty. They could ask for additional examples or repeat a task without being restricted by classroom time.

The second theme was efficiency, mentioned by 39 students or 78%. AI reduced the time required to locate vocabulary, check grammar, organize ideas, and prepare presentation materials. Students considered this efficiency helpful when completing assignments in both English and civil engineering courses.

The third theme was increased confidence, identified by 34 students or 68%. Participants explained that AI gave them a private space in which to make mistakes. They could prepare before communicating publicly and therefore felt less anxious during presentations.

The fourth theme was access to technical English, reported by 31 students or 62%. Students used AI to explore the English terminology of construction procedures, building components, engineering measurements, safety practices, and project administration. They believed that this technical language would be useful during internships and future employment.

Challenges and Concerns

Although the overall perception was positive, students identified several concerns. Thirty-three students or 66% stated that AI sometimes produced inaccurate, unclear, or inconsistent responses. The questionnaire item requiring students to verify AI-generated information received a mean of 4.32, demonstrating strong awareness that AI output should not automatically be trusted.

Twenty-eight students or 56% expressed concern about dependence. They believed that frequent reliance on AI might reduce their ability to formulate sentences independently. Some students admitted that the convenience of AI encouraged them to request complete answers rather than attempt a task first.

Twenty-four students or 48% considered AI communication practice less authentic than interaction with lecturers or classmates. Nineteen students or 38% identified practical barriers, including unstable internet access, restrictions in free versions, and differences between mobile and desktop features. Eighteen students or 36% stated that they had not received sufficiently detailed guidance regarding appropriate and inappropriate academic uses of AI.

Students consequently supported structured integration rather than unrestricted use. The statement "AI should support rather than replace communication with lecturers and classmates" obtained a mean of 4.48, the highest score in the responsible-use category. The intention to continue using AI obtained a mean of 4.36, provided that students received guidance regarding verification, citation, privacy, and academic integrity.

4. Discussion

The findings demonstrate that the Civil Engineering students at Politeknik Negeri Ujung Pandang generally held positive perceptions of the use of AI tools in learning English communication skills. The overall mean score of 4.12 indicates that the participants considered AI a useful and relevant supplementary learning resource. The positive perception was particularly evident in students' evaluations of technical vocabulary development, grammar correction, idea generation, immediate feedback, presentation preparation, and professional written communication.

The high level of perceived usefulness can be explained through the Technology Acceptance Model. According to Davis (1989), users are more likely to accept a technology when they believe it will improve their performance and when it is relatively easy to use. In this study, students considered AI useful because it gave them rapid access to vocabulary,

explanations, corrections, and examples. They were not required to wait for classroom meetings or lecturer feedback before revising a sentence or exploring a technical term. This interpretation is consistent with Liu and Ma's (2024) finding that perceived usefulness and ease of use significantly influence EFL learners' attitudes and intentions regarding the informal use of ChatGPT for English learning.

ChatGPT was reported as the most frequently used generative AI application, followed by Google Translate, Grammarly, Gemini, and pronunciation or speech-recognition tools. ChatGPT's popularity may be associated with its multifunctional characteristics. Unlike applications intended only for translation or grammatical correction, generative AI can respond to a wide variety of instructions, including requests for vocabulary explanations, presentation outlines, role-play scenarios, technical descriptions, questions, and text revisions. Kohnke et al. (2023) similarly explain that ChatGPT can serve multiple functions in language learning by supporting conversational practice, content generation, personalized explanations, and immediate feedback.

The participants' frequent use of AI tools also suggests that AI-assisted learning has become part of their informal digital learning practices. Most participants reported using AI either daily or several times per week. This pattern indicates that English learning increasingly extends beyond formal classroom activities. Students can access AI while preparing assignments, reading technical materials, creating presentation slides, or communicating through digital platforms. However, frequent use does not automatically indicate effective learning. The educational value of AI depends on the purposes for which it is used and the extent to which students critically evaluate the responses they receive.

Technical vocabulary development obtained the highest mean score. This finding is significant because Civil Engineering students encounter specialized terminology that may not be sufficiently addressed in general English learning materials. AI allows students to request definitions, translations, collocations, synonyms, and contextualized examples of engineering terminology. For example, students can investigate how terms such as reinforcement, foundation settlement, load-bearing capacity, drainage system, structural failure, or occupational safety are used in reports, meetings, and technical presentations.

The perceived value of AI for vocabulary learning is consistent with the broader literature reviewed by Lo et al. (2024). Their systematic review indicates that ChatGPT has been used to support vocabulary development, contextualized language practice, writing, speaking, reading, and personalized instruction. However, they also note that the effectiveness of AI depends on instructional design, learner engagement, and the quality of the generated response. Therefore, vocabulary activities should not be limited to asking AI for translations. Students should be encouraged to use new terminology in original explanations, dialogues, project reports, and presentations.

Grammar correction was another highly rated benefit. Students valued the ability to enter a sentence and immediately receive a revised version. This assistance was considered useful when preparing presentation slides, technical descriptions, formal correspondence, and project reports. The finding is consistent with Mahapatra (2024), who found that ChatGPT-supported formative feedback positively affected undergraduate students' academic writing. The dialogic nature of AI feedback allowed students to request clarification, obtain suggestions, and revise different aspects of their writing. Nevertheless, Mahapatra emphasized that positive outcomes require adequate student training and instructor guidance.

The result also supports Marzuki et al. (2023), who reported that EFL teachers generally perceived AI writing tools as beneficial for the content and organization of students' writing. AI tools may assist with brainstorming, text structure, vocabulary selection, grammatical accuracy, and revision. However, the teachers in their study also

recognized possible weaknesses, including generic ideas and student dependence. Accordingly, students should not simply copy AI-corrected text. They should be required to compare their original sentence with the revised version, identify the changes, explain why those changes were made, and decide whether the recommendation is appropriate for the intended communication context.

Students also reported that AI was valuable for presentation preparation. They used AI to organize introductions, formulate transitions, simplify technical explanations, create concise slide content, and anticipate possible questions. These functions are relevant to Civil Engineering education because students may be expected to present project designs, explain construction stages, discuss structural problems, or report fieldwork results. AI can assist during preparation, but the final presentation should continue to represent the student's knowledge and communicative ability.

Lecturers should therefore evaluate not only the quality of presentation slides but also students' ability to explain information independently and respond to unanticipated questions. When students rely too heavily on AI-generated scripts, they may perform adequately while reading prepared material but struggle during discussion. Presentation assessment should include spontaneous questions, requests for clarification, and practical scenarios that require students to demonstrate genuine understanding.

The increase in communication confidence reported by the participants represents another important finding. Students explained that AI allowed them to rehearse privately and make mistakes without feeling embarrassed. This finding corresponds with Slamet's (2024) study, in which Indonesian EFL students and teachers recognized the potential of ChatGPT to increase engagement, motivation, access to resources, and opportunities for individualized practice. AI can provide a relatively non-threatening environment, particularly for students who are reluctant to ask questions or communicate publicly.

However, confidence developed through AI-supported rehearsal must eventually be transferred to authentic interpersonal communication. The lower mean score for spontaneous real-time interaction indicates that students understood the limitations of text-based AI practice. Communication with lecturers, classmates, clients, and professional colleagues involves unpredictable responses, accents, interruptions, gestures, emotional interpretation, and negotiation of meaning. AI-generated conversations may provide useful preparation, but they cannot completely reproduce these interpersonal conditions.

This finding supports the argument that AI should supplement rather than replace collaborative and communicative learning. Zaim et al. (2024) emphasize that successful AI integration requires alignment between technological tools, pedagogical objectives, user roles, and the social context of learning. For this reason, an AI-generated dialogue should ideally be followed by pair work, group role-play, project simulation, debate, interview practice, or problem-solving communication involving human participants.

Students' concern about inaccurate AI responses was also substantial. Although AI-generated language may appear fluent and convincing, it can include incorrect facts, inappropriate terminology, misleading explanations, or fabricated references. This issue is especially important in civil engineering, where accuracy is essential. An inappropriate description of structural materials, measurements, construction procedures, or safety practices could cause students to acquire incorrect disciplinary knowledge.

Consequently, verification should become an explicit component of AI-supported English learning. Students should be taught to compare AI responses with engineering textbooks, technical standards, dictionaries, lecturer explanations, and credible academic sources. Lecturers can also intentionally provide students with AI-generated technical texts

containing errors and ask them to identify, explain, and revise the inaccuracies. Such activities can strengthen both language competence and critical digital literacy.

The participants also expressed concern about dependence on AI. More than half believed that frequent reliance on AI could reduce their ability to formulate sentences independently. This concern is consistent with the limitations identified by Slamet (2024), including language inaccuracy, technological dependence, and the absence of sufficient pedagogical guidance. It also corresponds with Kasneci et al. (2023), who warn that excessive dependence on generative AI may affect critical thinking, independent problem-solving, assessment validity, and learner responsibility.

To reduce dependence, AI-assisted tasks should follow a staged process. Students can first attempt a communication task independently, then request targeted feedback from AI, revise their work, and finally provide a short reflection explaining what was changed. This approach positions AI as a feedback and revision partner rather than as the original producer of the entire assignment. Students may also be required to submit their initial draft, prompts, selected AI responses, revised draft, and reflection.

Academic integrity and authorship must also be addressed. Students require clear instructions regarding which forms of AI use are permitted and which are considered inappropriate. Acceptable uses may include brainstorming, vocabulary exploration, grammar feedback, pronunciation practice, and dialogue rehearsal. In contrast, submitting a complete AI-generated report or presentation as original work without disclosure may violate academic integrity principles.

A complete prohibition of AI may be difficult to enforce and may prevent students from developing responsible AI literacy. Conversely, unrestricted use may weaken independent learning and make assessment less reliable. A balanced institutional policy should emphasize transparency, accountability, verification, data privacy, and human responsibility. UNESCO's guidance recommends that generative AI implementation maintain human agency, protect users' data, promote ethical governance, and ensure that technology supports rather than controls educational processes (Miao & Holmes, 2023).

The findings have several pedagogical implications for English instruction in the Civil Engineering Department. First, AI-assisted activities should be directly connected to professional communication needs. Relevant activities may include project presentations, construction-site conversations, safety briefings, technical email writing, internship interviews, explanations of engineering processes, and discussions of project delays or structural problems.

Second, students should receive explicit instruction in prompt construction. Effective prompts specify the communication context, speaker roles, audience, purpose, language proficiency, technical topic, expected format, and limitations. Teaching students to create detailed prompts can strengthen their awareness of audience and purpose, which are also fundamental elements of effective communication.

Third, AI-generated output should become material for evaluation and discussion rather than automatically being treated as a correct answer. Students can compare outputs from different tools, analyze language quality, identify technical errors, revise inappropriate expressions, and explain which response is most suitable. These activities promote critical engagement rather than passive consumption.

Fourth, greater attention should be given to voice-based AI and speaking applications. The relatively limited use of pronunciation and speech-recognition tools suggests that students' AI practices remain primarily text-oriented. Lecturers can introduce AI-supported pronunciation and speaking exercises while reminding students that automated scores cannot fully measure intelligibility, interactional competence, or communicative effectiveness.

Overall, the findings indicate that AI has substantial potential to support English communication learning among Civil Engineering students. However, its value depends on pedagogical design, student literacy, lecturer guidance, technical verification, and opportunities for authentic human communication. AI should be positioned as a supportive learning partner that extends practice and feedback opportunities while preserving independent thinking, disciplinary accuracy, ethical responsibility, and meaningful interpersonal interaction.

5. Conclusion

This study examined the perceptions of 50 Civil Engineering students at Politeknik Negeri Ujung Pandang regarding the use of AI tools in learning English communication skills. The findings indicate that students generally viewed AI as a beneficial and accessible learning resource. AI tools were perceived as particularly useful for developing technical vocabulary, correcting grammar, generating ideas, preparing presentations, writing professional messages, and obtaining immediate feedback.

Students also believed that AI-assisted rehearsal could reduce anxiety and increase confidence. The private and repeatable nature of AI interaction allowed students to test expressions and revise their communication before participating in classroom or professional situations. These benefits are relevant to civil engineering students who need to communicate technical information clearly in academic, workplace, and international contexts.

Nevertheless, positive perceptions did not eliminate students' concerns. Participants recognized that AI could produce inaccurate information, encourage dependence, create academic-integrity problems, and provide less authentic communication practice than interaction with human speakers. Students therefore did not regard AI as a substitute for lecturers, classmates, or real professional communication.

Effective implementation requires a balanced pedagogical approach. AI should be used to support preparation, feedback, vocabulary development, rehearsal, and reflection, while classroom activities should continue to emphasize human interaction, critical thinking, independent production, and technical accuracy. Students should be taught to verify AI output, protect private information, document substantial AI assistance, and remain responsible for their final communication.

For English instruction in vocational higher education, the most productive approach is not to prohibit or uncritically celebrate AI. Instead, institutions should develop clear guidance and discipline-specific learning activities that combine technological assistance with meaningful communication. When used critically, ethically, and purposefully, AI can become a valuable learning partner for civil engineering students preparing to communicate in increasingly digital and internationally connected professional environments.

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