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DEVELOPING STUDENTS’ PROFESSIONAL COMMUNICATION SKILLS THROUGH A LINGUISTIC-ANALYTICAL APPROACH: A TECHNOLOGY-ENHANCED FRAMEWORK FOR ARTIFICIAL INTELLIGENCE STUDENTS

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ABSTRACT

The rapid development of artificial intelligence (AI) has increased the demand for graduates who can combine technical expertise with effective professional communication. AI students must explain complex algorithms, interpret technical documentation, present research findings, collaborate in interdisciplinary teams, and communicate technological risks to different audiences. This article proposes a linguistic-analytical approach to developing students’ professional communication skills through the integration of language analysis, critical thinking, authentic professional tasks, educational games, and generative artificial intelligence tools. Drawing on established research on communicative competence, the Common European Framework of Reference for Languages (CEFR), task-based language teaching, game-based learning, and AI-supported education, the article presents a five-stage instructional framework: diagnostic assessment, linguistic preparation, analytical interpretation, professional communication practice, and reflective evaluation. Practical activities include Technical Terminology Challenge, Explain It to a Client, AI Output Detective, Bug Report Relay, and the Five-Minute Project Pitch. Authentic English-language expressions are provided to support students’ participation in meetings, technical presentations, teamwork, and professional correspondence. The proposed framework emphasizes human-centred AI use, independent verification of information, academic integrity, and formative assessment. It offers a practical methodological model for integrating language development into AI-related higher education, while recognizing that its effectiveness must be established through empirical classroom research.

Keywords

professional communication, linguistic-analytical approach, artificial intelligence, communicative competence, task-based language teaching, game-based learning, generative AI, technical English, digital literacy, higher education.

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1. INTRODUCTION

Artificial intelligence is transforming professional practices in software development, data analysis, cybersecurity, telecommunications, engineering, and scientific research. However, technical knowledge alone does not guarantee professional success. Graduates must also explain technical decisions, discuss project requirements, document problems, evaluate evidence, negotiate solutions, and communicate effectively with colleagues and clients.

For students specializing in artificial intelligence, professional communication is particularly important because their future work involves translating complex computational processes into meaningful information

for different audiences. A machine-learning engineer, for example, may need to explain model accuracy to a technical team, describe system limitations to a project manager, and communicate potential risks to a non-technical client. These situations require more than grammatical accuracy. They involve the ability to select appropriate terminology, organize information logically, adapt explanations to an audience, support claims with evidence, and respond constructively to questions.

The concept of communicative competence developed by Hymes [1] and further elaborated by Canale and Swain [2] provides an important theoretical foundation for this educational objective. Their work demonstrates why language education should address the appropriate use of language in communicative situations rather than concentrate exclusively on grammatical structures. The Council of Europe’s Common European Framework of Reference for Languages: Companion Volume expands this perspective through descriptors for interaction, mediation, online communication, and collaborative meaning-making [3]. These dimensions are especially relevant to AI students, who frequently need to summarize technical information, explain specialized concepts, and collaborate in digital environments.

Generative AI tools offer new opportunities for language practice, feedback, and the creation of professional simulations. Nevertheless, their use requires critical evaluation and responsible pedagogical design. UNESCO’s guidance emphasizes a human-centred approach to generative AI in education and research [4]. AI tools may produce fluent but inaccurate content, so learners need the ability to verify claims, distinguish evidence from speculation, and remain responsible for the final message.

The purpose of this article is to propose a theoretically grounded and practically applicable instructional framework that combines linguistic analysis, professional problem-solving, interactive games, task-based learning, and responsible AI-supported practice. The article addresses three questions: (1) Which linguistic and analytical competencies are essential for professional communication among AI students? (2) How can modern teaching approaches be integrated into a structured framework? (3) Which classroom tasks, games, and assessment methods can help students practise authentic professional English?

The article is a literature-informed methodological proposal. It does not report an experiment conducted at Fergana State Technical University. The activities and framework should therefore be understood as a model for implementation and future evaluation, not as a set of experimentally confirmed outcomes.

2. THEORETICAL FOUNDATIONS OF THE LINGUISTIC-ANALYTICAL APPROACH

2.1. Professional communication as an integrated competence

Professional communication can be defined as the purposeful use of language to exchange information, solve problems, coordinate activities, and establish professional relationships within a particular field. For AI students, this competence includes several interconnected dimensions.

Linguistic competence involves the accurate use of grammar, vocabulary, sentence structures, and technical terminology. Students should distinguish among terms such as algorithm, model, dataset, training, inference, and evaluation, and use each term in a suitable context.

Discourse competence concerns the organization of information into coherent explanations, reports, presentations, and discussions. A technical explanation should normally introduce the problem, describe the relevant process, present evidence, acknowledge limitations, and communicate a conclusion.

Sociopragmatic competence involves selecting language that is appropriate to the audience, professional relationship, and communicative purpose. A detailed explanation for a software engineer differs from an explanation for a client who has limited technical knowledge. The speaker must preserve accuracy while adjusting vocabulary, sentence length, examples, and assumed background knowledge.

Analytical competence involves interpreting information, identifying assumptions, comparing evidence, detecting inconsistencies, and drawing justified conclusions. These abilities are essential when discussing AI-generated information, evaluating model performance, or reporting software errors.

Digital communication competence concerns professional interaction through email, online meetings, collaborative platforms, technical documentation, and AI-supported communication environments. It includes awareness of tone, response conventions, privacy, and the permanence of written digital communication.

These dimensions should not be taught in isolation. A student explaining a machine-learning model must use appropriate terminology, structure the explanation coherently, evaluate the reliability of the information, and adapt the message to the intended audience. Integrated instruction therefore creates a more realistic learning environment than vocabulary or grammar exercises alone.

2.2. What makes the approach linguistic and analytical?

The proposed linguistic-analytical approach combines the systematic study of language with the examination of meaning, evidence, reasoning, and communicative purpose. The linguistic component focuses on vocabulary, collocations, sentence patterns, discourse markers, register, and genre conventions. The analytical component focuses on the message itself: students identify a central claim, examine supporting evidence, recognize ambiguity, distinguish facts from assumptions, and determine whether a conclusion follows from the available information.

Consider the statement: “The AI model is good and gives better results.” Although understandable, it is vague. A more precise version is: “The model achieved higher classification accuracy on the evaluation dataset; however, additional testing is required to determine whether the improvement generalizes to unseen data.” The revised statement specifies the measured result and avoids making an unsupported universal claim.

This comparison shows that professional language is not simply more formal language. It is language that expresses technical meaning accurately, makes reasoning visible, and avoids claims that exceed the available evidence. Students can be taught to revise their own communication by asking: What exactly do I mean? What evidence supports this statement? Is the wording precise? Will this audience understand the terminology? What limitation should be acknowledged?

2.3. Communicative competence and mediation

The CEFR Companion Volume provides a useful framework for developing interaction, mediation, and online communication [3]. Mediation is especially relevant when students must make specialized information accessible to other people. An AI student may read a technical description of a neural network and then summarize its main principles for a project manager. This task requires comprehension, selection of relevant information, reformulation, and audience awareness.

A mediation activity can follow three steps. First, students read a short technical text about an AI application. Second, they identify the main idea, essential terminology, limitations, and practical implications. Third, they explain the information to a partner who assumes the role of a non-technical stakeholder. The objective is not to reproduce the source word for word, but to preserve the meaning while making the explanation suitable for its audience.

Mediation also includes helping a group reach shared understanding. During a team project, one student may clarify a technical term, another may summarize competing proposals, and a third may record the agreed action points. Such tasks combine language, reasoning, and collaboration.

3. MODERN TEACHING APPROACHES FOR PROFESSIONAL COMMUNICATION

3.1. Task-Based Language Teaching (TBLT)

Task-Based Language Teaching organizes learning around meaningful tasks with a communicative outcome. Rather than practising language only through isolated exercises, students use language to complete a realistic activity. In an AI course, an example might involve preparing a short explanation of a classification algorithm for a client. Students must understand the technical content, identify the client’s needs, organize the explanation, and answer questions.

A practical sequence includes a pre-task, task performance, language analysis, and revision. During the pre-task, students examine a model explanation and review relevant terminology. During task performance, they prepare and deliver their own explanation. During language analysis, the class identifies effective phrases, unclear statements, and recurring errors. Finally, students revise and deliver the explanation again. This sequence connects communicative performance with explicit linguistic analysis and allows immediate use of feedback.

A recent systematic review and meta-analysis by Li, Shadiev, and Chiu examined 25 empirical studies

involving 2,431 participants and investigated generative AI in task-based language teaching and learning [5]. This work supports continued investigation of task design, learner AI literacy, planning, and assessment when integrating generative AI into language education. It does not mean that every AI-assisted task is automatically effective; outcomes depend on implementation and evaluation.

3.2. Project-Based Learning (PBL)

Project-Based Learning organizes learning around an extended project that leads to a concrete outcome. For AI students, a project may involve proposing a chatbot, designing a basic data-analysis application, or preparing a cybersecurity awareness tool. The communication component may include writing a proposal, preparing a problem statement, explaining intended users, presenting system architecture, discussing limitations, answering questions, and writing a final report.

A project should have both a technical objective and a communication objective. For example, students may be required to explain a prototype to a non-specialist audience in three minutes without losing technical accuracy. Team members can rotate roles such as project lead, technical writer, presenter, and reviewer. This arrangement gives students practice with different professional communication genres.

Teachers should provide milestones and clear assessment criteria. A project proposal might be evaluated for problem definition, audience awareness, evidence, organization, terminology, and feasibility. Feedback should arrive while students can still revise their work, rather than only after the final presentation.

3.3. Content and Language Integrated Learning (CLIL)

Content and Language Integrated Learning combines subject content with language development. In this context, students work with AI-related subject matter while explicitly developing the English needed to discuss it. A CLIL lesson on machine learning might include the content of supervised learning, communication about training data, cognitive work comparing model outputs, and contextual discussion of how different users interpret results.

Students might compare two explanations of a model’s performance and decide which is more appropriate for a technical report. The teacher can then draw attention to phrases such as “based on the available data,” “the results indicate,” and “further investigation is required.” Language is developed through meaningful engagement with disciplinary content, while technical content provides a reason to communicate.

3.4. English for Specific Purposes and genre-based instruction

English for Specific Purposes (ESP) focuses on the language requirements of a particular academic or professional domain. Genre-based instruction complements ESP by examining how communication is structured in recurring professional situations. AI students should become familiar with technical reports, research abstracts, bug reports, project proposals, meeting summaries, and professional emails.

A bug report, for example, typically identifies the problem, describes the environment, lists reproduction steps, states the expected result, records the actual result, and includes evidence. Students can compare a vague report—“The system does not work”—with a useful report that states the conditions under which the error occurs. This helps them understand that professional writing is designed to enable another person to act.

Genre-based instruction should not reduce writing to rigid templates. Templates offer a starting point, but students must learn to adapt them to the purpose, audience, complexity, and requirements of a particular task.

3.5. Game-Based Learning and gamification

Game-Based Learning uses games as structured learning activities, whereas gamification introduces game elements such as points, levels, challenges, and badges into non-game activities. Research reviews have examined games and gamification in language education and higher education [6–8]. Such activities can provide repeated practice, interaction, and immediate feedback when they are aligned with explicit learning outcomes.

Games should not reward speed at the expense of accuracy or encourage students to guess without explaining their reasoning. The teacher should include a reflection stage in which learners discuss what they learned, identify errors, and apply the language in a new professional context. Competitive elements should

be optional or balanced with cooperative goals so that students with different proficiency levels can participate meaningfully.

4. PRACTICAL CLASSROOM GAMES AND COMMUNICATION TECHNIQUES

4.1. Technical Terminology Challenge

Objective: develop accurate use of AI-related vocabulary. Duration: 10–15 minutes. Organization: teams of three or four students. The teacher prepares cards containing terms such as dataset, algorithm, neural network, training data, model accuracy, bias, and inference. One student explains a term without saying the word itself. Teammates identify the term and construct a sentence demonstrating professional use.

Example: target term—dataset. Explanation: “A collection of examples used to analyze a problem or train and evaluate a model.” Professional sentence: “We need to check the dataset for missing values before training the model.” Teams earn points for a correct definition, an accurate example, and appropriate pronunciation. A bonus point can be awarded for explaining the term to a non-technical audience. The final stage requires students to use three terms in a short project update.

Variation: ask students to identify a collocation rather than a single word. For example, the teacher says “___ a model,” and students supply “train,” “evaluate,” or “deploy,” then explain the difference among these verbs.

4.2. Explain It to a Client

Objective: develop mediation and audience-sensitive communication. Duration: 15–20 minutes. Students work in pairs. One plays an AI developer and the other a client with limited technical knowledge. The developer explains a concept such as image recognition, a recommendation system, or chatbot functionality without relying on unnecessary jargon. The client asks at least two questions.

Useful expressions include: “In simple terms, the system works by…”; “The main purpose of this feature is to…”; “One important limitation is that…”; “This does not necessarily mean that…”; “Let me give you an example”; and “Would you like me to explain how this works in practice?”

After the conversation, partners evaluate whether the explanation was accurate, understandable, and responsive to the client’s questions. They exchange roles and repeat the task with a different concept. The teacher can increase the difficulty by introducing a concerned client, a time limit, or a requirement to explain a technical limitation.

4.3. AI Output Detective

Objective: develop critical evaluation, linguistic accuracy, and responsible AI literacy. Duration: approximately 20 minutes. Teams receive a short AI-generated technical explanation containing deliberately introduced problems, such as an unsupported claim, an ambiguous sentence, an incorrect technical term, or a conclusion that goes beyond the evidence.

Example sentence: “The model achieved 98% accuracy on one test dataset, so it will always produce correct predictions in real-world situations.” Students should recognize that the conclusion is unjustified. A more appropriate revision is: “The model achieved 98% accuracy on the evaluated test dataset. Further testing is required to assess its performance under different real-world conditions.”

The team must explain each change and identify the evidence needed to verify the claim. The teacher should clarify that the sample is designed for classroom analysis and that actual AI-generated outputs must be checked rather than assumed to contain errors. The game reinforces the principle that fluent wording is not proof of factual reliability.

4.4. Bug Report Relay

Objective: practise concise technical writing and structured problem reporting. Duration: 15–20 minutes. Teams receive a scenario describing a software problem, such as a login page displaying an error after a user resets a password. The first student writes a clear problem title; the second records reproduction steps; the third describes expected and actual results; the fourth identifies evidence to collect; and the final student checks

terminology and coherence.

Useful expressions include: “The issue occurs when…”; “The expected behaviour is…”; “The actual result is…”; “The problem can be reproduced by…”; “The error message indicates that…”; and “Further investigation is required to determine whether…”

The team then checks whether another person could understand and investigate the problem without needing additional basic information. This game emphasizes precision, sequence, and the practical function of technical writing.

4.5. The Five-Minute Project Pitch

Objective: develop presentation skills, logical argumentation, and professional confidence. Duration: 25–30 minutes. Groups present an AI-related project, such as a student-support chatbot, an automated classification tool, or an application for identifying suspicious digital activity. Each presentation addresses five questions: What problem does the project solve? Who will use the system? How does the solution work? What are its benefits and limitations? What evidence is needed to evaluate effectiveness?

Recommended expressions include: “Our project aims to address…”; “The main challenge we identified is…”; “Our proposed solution uses…”; “One potential benefit is…”; “A limitation of the current approach is…”; “We would evaluate the system by measuring…”; and “Thank you for the question. Based on our current analysis…”

Peers provide feedback on clarity, organization, terminology, evidence, and responses to questions. Students should be rewarded for acknowledging uncertainty and limitations rather than presenting every proposal as unquestionably successful.

4.6. Evidence-Based Debate

Objective: develop argumentation, critical listening, and respectful disagreement. Duration: 20–25 minutes. Suggested topic: “Should AI-generated content be accepted in university assignments?” One group argues that generative AI can support learning when used transparently; another argues that excessive reliance may weaken independent thinking and create problems with accuracy and authorship.

Each group must provide at least two arguments, respond to a counterargument, and distinguish evidence-based claims from personal opinions. Useful expressions include: “The main reason for our position is…”; “The evidence suggests that…”; “One possible objection is…”; “We acknowledge this limitation; however…”; “This claim requires further evidence”; and “Our conclusion is limited by…”

The debate concludes with an individual reflection identifying the strongest argument made by the opposing team. This reflection helps students practise intellectual flexibility and reasoned disagreement.

4.7. The terminology-to-context technique

Students learn not only the meaning of a technical term but also its common linguistic combinations. Examples include “collect data,” “analyze data,” “train a model,” “evaluate a model,” “design an algorithm,” “optimize an algorithm,” “measure accuracy,” “detect bias,” “mitigate bias,” “assess security,” and “interpret results.” Students select five combinations and use them in a short technical briefing.

This technique is more useful than memorizing isolated words because professional communication frequently depends on conventional combinations. Teachers can extend it by asking students to compare verb choices, identify typical contexts, and correct unnatural combinations in sample reports.

4.8. Meeting Simulation and Action-Point Summary

Students simulate a short project meeting in which a team must decide how to respond to a technical issue. Roles may include project manager, developer, data analyst, and client representative. Each participant must contribute one observation, ask one clarification question, and propose one next step.

Useful phrases include: “Could you clarify what you mean by…?”; “From a technical perspective…”; “I agree with the main point, but I would add that…”; “Can we distinguish the immediate issue from the underlying cause?”; “To summarize, we have agreed to…”; and “The next action is to…, and the responsible person is…”

At the end, one student writes an action-point summary with the decision, owner, and deadline for each task. The class checks whether the summary accurately reflects the discussion. This activity connects spoken interaction with concise professional writing.

5. AUTHENTIC ENGLISH FOR PROFESSIONAL SITUATIONS

5.1. Explaining a technical process

A useful explanation often follows a predictable sequence: purpose, process, evidence, limitation, and conclusion. Students can practise the following language frames:

- “The purpose of this component is to…”
- “The system receives… and then…”
- “The model was trained using…”
- “The results indicate that…”
- “One limitation of this approach is…”
- “Based on the current evidence, we can conclude that…”

The teacher should explain that these are adaptable sentence frames, not universal formulas. Students must ensure that each phrase accurately reflects the facts of the specific task.

5.2. Participating in meetings

- “Could you clarify the expected outcome?”
- “I would like to add one point.”
- “Could we compare the two options before deciding?”
- “I see your point; however, the available data suggest…”
- “What assumptions are we making here?”
- “Let me summarize the decision and the next steps.”

Students can practise these expressions through short role-plays and then repeat the discussion without the phrase list. The goal is flexible use rather than memorization.

5.3. Writing professional emails

A professional email should make its purpose clear, provide necessary context, state the requested action, and use an appropriate tone. For example:

Subject: Request for clarification on the project requirements

Dear [Name],

I am writing to clarify the evaluation criteria for the proposed AI project. Could you please confirm whether the final report should include a comparison of at least two models? This information will help us align our testing plan with the project requirements.

Thank you for your time and guidance.

Best regards,

[Student Name]

Students should also practise concise follow-up messages, meeting invitations, and polite requests for technical information. The teacher can compare direct, overly informal, and appropriately professional versions of the same message.

5.4. Expressing uncertainty and limitations

Professional communication requires accurate expression of uncertainty. AI systems may perform differently across datasets, user groups, and operating conditions. Students should therefore learn phrases that distinguish established findings from hypotheses.

- “The available evidence suggests that…”
- “This result should be interpreted with caution because…”

- “We have not yet tested the system under…”
- “One possible explanation is…, although further analysis is needed.”
- “The current data are insufficient to determine whether…”

These phrases support epistemic precision: students communicate not only what they believe, but also how strongly the available evidence supports that belief.

6. RESPONSIBLE INTEGRATION OF GENERATIVE AI INTO LANGUAGE LEARNING

Generative AI tools can provide individualized practice, simulated professional dialogue, vocabulary development, and feedback on writing. Their educational value, however, depends on task design and on how students evaluate the output. UNESCO’s guidance emphasizes human-centred, ethical, safe, and meaningful use of generative AI in education and research [4].

6.1. A three-stage AI-supported workflow

Stage 1—Prompting and task definition. Students specify the role, audience, purpose, and desired format of a communication task. A sample prompt is: “Act as a technical communication tutor. Review my explanation of a machine-learning model for a non-technical client. Identify unclear terminology, unsupported claims, and sentences that could be more concise. Explain each recommendation, but do not rewrite the entire text for me.”

Stage 2—Critical evaluation. Students compare the feedback with their own analysis. They decide which recommendations are useful, which require verification, and which may change the intended technical meaning. They should not accept every grammatical or stylistic suggestion automatically.

Stage 3—Responsible revision. Students produce a revised version, document important changes, and acknowledge AI assistance when required by institutional policy. The teacher may ask students to submit the original draft, selected AI feedback, and a short reflection explaining their final decisions.

6.2. Risks and safeguards

AI systems may produce incorrect facts, fabricated references, biased content, or explanations that sound confident despite being unsupported. Students must verify important technical claims against reliable documentation and research. They should not enter confidential project data, personal information, passwords, or unpublished sensitive material into external tools without authorization.

Teachers should define acceptable uses of AI before assignments begin. A policy might permit brainstorming and language feedback while requiring students to write their own analysis, verify sources, disclose substantive AI assistance, and retain drafts. The precise rules should follow institutional policy and the purpose of the assessment.

AI should support practice and reflection rather than replace the student’s communicative effort. For oral assessment, students may be asked to explain their reasoning without AI assistance or answer follow-up questions about their written work.

7. A FIVE-STAGE INSTRUCTIONAL FRAMEWORK

7.1. Stage One: Diagnostic assessment

Students complete a short technical explanation, write a brief report, and participate in a professional dialogue. Their performance is assessed against common criteria. The purpose is to identify strengths and learning needs, not to label students permanently. A baseline assessment can be repeated later using a comparable task.

7.2. Stage Two: Linguistic preparation

Students learn technical vocabulary, professional collocations, sentence structures, discourse markers, and conventions of professional genres. Vocabulary should be recycled in several contexts: definitions, sentence completion, short explanations, reports, and oral discussion.

7.3. Stage Three: Analytical interpretation

Students examine technical texts, identify key claims, evaluate evidence, detect ambiguous language, and revise unclear statements. Teachers can ask learners to annotate a text by marking the main claim, evidence, limitation, and conclusion. Students then explain why the selected evidence does or does not support the claim.

7.4. Stage Four: Communicative application

Students complete realistic professional tasks through role-play, project presentations, simulations, discussions, and classroom games. Activities should gradually move from supported practice to independent performance. Early tasks may include sentence frames; later tasks require students to choose language and structure independently.

7.5. Stage Five: Reflection and evaluation

Students review feedback, revise their work, identify recurring difficulties, and compare performance with the initial assessment. Reflection prompts include: What did I communicate successfully? Which phrase or term did I use inaccurately? What feedback did I accept or reject, and why? What will I change next time?

The stages form a continuous cycle. Diagnostic findings guide instruction, analytical activities prepare students for professional tasks, and reflective assessment informs subsequent teaching.

8. ASSESSMENT CRITERIA AND EVALUATION PROCEDURES

A reliable assessment system should examine both linguistic quality and the quality of reasoning expressed through it. The following rubric is proposed for presentations, professional dialogues, and technical writing tasks. The weights are a suggested design and can be adjusted to the course objectives.

Criterion	What is assessed	Weight
Linguistic accuracy and register	Grammar, vocabulary, tone, and professional appropriateness	20%
Technical terminology	Accurate and consistent use of domain-specific terms	20%
Logical organization	Coherence, sequencing, transitions, and clarity	20%
Evidence and analytical reasoning	Quality of evidence, evaluation, and justified conclusions	20%
Audience awareness and interaction	Responsiveness, clarity, and ability to answer questions	20%
TOTAL		100%

Each criterion can be scored on a four-point scale: 4—excellent, meaning accurate, coherent, well-supported, and audience-appropriate; 3—good, meaning generally effective with minor weaknesses; 2—developing, meaning noticeable problems in clarity, accuracy, or organization; and 1—beginning, meaning substantial difficulties interfere with communication.

To improve consistency, teachers should provide sample performances for each level and use a shared scoring guide. Where possible, two assessors can independently score a sample of student work and discuss disagreements. Feedback should identify specific next steps rather than only provide a numerical grade.

8.1. Suggested lesson plan

A 90-minute lesson on explaining AI model performance could be organized as follows:

- 10 minutes: warm-up and retrieval of key terms such as accuracy, precision, recall, dataset, and evaluation.
- 15 minutes: guided analysis of a short technical explanation; students mark the claim, evidence, limitation, and conclusion.
- 15 minutes: language focus on cautious claims and evidence-based expressions.
- 20 minutes: Explain It to a Client role-play in pairs.
- 15 minutes: AI Output Detective task using a sample explanation with an unsupported conclusion.
- 10 minutes: peer feedback using the rubric.

- 5 minutes: exit reflection identifying one strength and one target for improvement.

This plan combines language input, analytical work, communicative performance, and reflection. Teachers can expand the task for a longer class or divide it into two sessions.

9. DISCUSSION

The proposed framework connects professional communication with the cognitive and linguistic demands of AI-related education. Its principal strength is the integration of language analysis with meaningful professional activity. Rather than studying technical vocabulary in isolation, students apply it while explaining systems, investigating errors, preparing reports, and defending project proposals.

A second strength is the emphasis on mediation and audience adaptation. AI specialists often communicate between technical and non-technical stakeholders. Explain It to a Client encourages students to preserve technical accuracy while making information understandable. A third strength is the inclusion of games and simulations, which create structured opportunities for practice and peer interaction. However, competitive elements should not overshadow the learning objectives; students need opportunities to revise their work and explain their reasoning.

A fourth strength is the integration of AI literacy into language development. Students learn not only to use generative tools but also to question their outputs, verify claims, and retain responsibility for their writing. This is consistent with the human-centred orientation described in UNESCO’s guidance [4].

Several limitations must be acknowledged. First, the framework is a methodological proposal and has not yet been validated through an intervention study in the specified university context. Second, students may differ in English proficiency, technical knowledge, and digital literacy. Third, access to suitable technologies and the reliability of AI-generated feedback may vary. Finally, teachers need training to integrate technical content, language instruction, and AI-related ethical considerations effectively.

Future research should examine the effects of the framework on technical vocabulary acquisition, professional writing quality, presentation performance, interactional competence, and students’ ability to evaluate AI-generated information. Studies could compare different activities, investigate learner perceptions, and determine which approaches work best for different proficiency levels and specializations.

10. CONCLUSION

Developing professional communication skills among artificial intelligence students requires an educational approach that combines linguistic accuracy, analytical reasoning, disciplinary knowledge, and effective interaction. The linguistic-analytical approach proposed in this article integrates established methods of language education with authentic technical tasks, professional genres, educational games, and responsible generative AI use.

Its five stages—diagnostic assessment, linguistic preparation, analytical interpretation, communicative application, and reflection—provide a structured basis for designing learning activities. The proposed games, including Technical Terminology Challenge, Explain It to a Client, AI Output Detective, Bug Report Relay, Evidence-Based Debate, and the Five-Minute Project Pitch, translate learning objectives into practical classroom tasks. They encourage students to use technical vocabulary in context, explain complex ideas, identify unsupported claims, structure professional documents, and communicate reasoning clearly.

The integration of TBLT, PBL, CLIL, genre-based instruction, and game-based learning can connect language development with the communicative requirements of AI-related disciplines. Generative AI can further support practice and feedback when its outputs are evaluated critically and used in accordance with academic integrity and data-protection principles.

The framework should be regarded as a testable pedagogical model rather than a proven intervention. Its effectiveness needs to be examined through systematic classroom implementation, transparent assessment, and empirical research. Such investigation could contribute to a more integrated model of technical and communicative education in higher education.

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