

FROM ANXIETY TO CONFIDENCE: PERMA-BASED LEARNING WITH AI SUPPORT FOR ARGUMENTATIVE SPEAKING DEVELOPMENT

Rasi Yugafiati¹⁾, Issy Yuliasri²⁾, Widhiyanto³⁾.

^{1, 2, 3}UNNES, Sekaran, Kecamatan Gunungpati, Semarang, 50229, Indonesia

*Corresponding author email: rasi_yugafiati@students.unnes.ac.id

Ilmu Pengembangan Bahasa
UNNES
Semarang, Indonesia
email: rasi_yugafiati@students.unnes.ac.id

Abstract

Students from non-English majors often experience anxiety when using English as a medium of instruction, particularly in speaking tasks that require academic argumentation. This issue is also relevant to students of the Primary School Teacher Education Program (PGSD), who may need to use English in future teaching contexts. This paper reports a preliminary study as the first stage of a larger research project on the implementation of PERMA-based learning with AI support to assess speaking for academic purposes. The participants were 42 regular undergraduate students of the Primary School Teacher Education Program (PGSD), batch 2024, in their fourth semester, enrolled in the *English for Learning* course. The study aimed to improve students' argumentative speaking skills and readiness to use English in future classrooms.

This research employed a qualitative design using data triangulation through classroom observation, student reflections, and speaking performance records. At the beginning of the program, many students reported anxiety and low confidence because English was rarely used in daily communication. However, through PERMA-based learning, students gradually became more comfortable due to support from the lecturer and peers. They also used AI tools to review and improve their speaking performance before class sessions and uploaded learning summaries to Google Classroom. Over time, students showed clear progress in pronunciation, speaking fluency, and self-confidence.

The findings indicate that the integration of PERMA-based learning and AI support created a positive and motivating learning environment that reduced anxiety and enhanced students' argumentative speaking ability. These results demonstrate promising potential for wider implementation in future research on speaking for academic purposes.

Keywords – PERMA-based learning; AI-assisted learning; argumentative speaking; speaking for academic purposes; pre-service teachers; student engagement

Introduction

English competence has become increasingly important for students in the Primary School Teacher Education Program (PGSD), as future elementary school teachers are expected to respond to global educational demands and support learners with basic English skills. Previous studies have shown that field experience helps PGSD pre-service teachers develop pedagogical competence, self-efficacy, classroom awareness, and lesson-planning skills,

although stronger mentoring systems, TEYL integration, and English proficiency support are still required (Handayani & Yusuf, 2025). Other findings indicate that PGSD students highly value English for career development and professional readiness; however, their confidence in using English remains limited due to insufficient vocabulary, grammar, pronunciation, and opportunities for practice (Af'al, 2025; Yulia, 2017). Similarly, students have reported only

moderate confidence and motivation to teach English after graduation, suggesting the need for additional preparation and training (Kaltsum et al., 2015).

Several efforts have been introduced to improve English learning among PGSD students. Communicative Language Teaching (CLT) has been found effective in increasing motivation, curiosity, participation, and speaking engagement through interactive classroom activities (Puspitasari, 2016). In addition, students perceived EnglishScore testing positively as a tool for improving vocabulary, grammar, reading, and listening skills despite initial anxiety (Fauzi & Maharani, 2023). Research has also highlighted the importance of learning strategies, thematic teaching materials, and comprehensive needs analysis to ensure that English instruction matches students' academic and professional needs (Rachman, 2020; Saharudin et al., 2024; Widiarini et al., 2023). Nevertheless, limited attention has been given to learning approaches that simultaneously address students' emotional well-being, confidence, and speaking performance.

The integration of psychological well-being into language learning has gained increasing attention, particularly through the application of the PERMA framework proposed within positive psychology. PERMA Well-Being, which encompasses positive emotion, engagement, relationships, meaning, and accomplishment, represents a multidimensional model that combines hedonic and eudaimonic perspectives to explain how individuals achieve optimal functioning and life satisfaction (Butler & Kern, 2016; Vivekananda & Polii, 2024). This framework has been widely applied across educational and professional contexts, demonstrating its capacity to support resilience, motivation, and performance. In educational settings, PERMA has been shown to foster students' emotional stability, engagement in learning tasks, and sense of purpose, all

of which are critical for language acquisition. For instance, research on teacher education students in Indonesia highlights that well-being is often expressed through culturally embedded dimensions such as collective emotional support, relational engagement, and community-oriented achievement, indicating that PERMA remains relevant when implemented through context-sensitive approaches (Nadhirah et al., 2025). Similarly, studies in broader educational contexts reveal that PERMA contributes to higher levels of resilience and reduced mental health challenges among learners, reinforcing its role as a protective and developmental framework (Turner et al., 2023).

Within the field of English Language Teaching (ELT), the application of PERMA has shown promising results in addressing affective barriers such as anxiety and low confidence, which are commonly experienced by EFL learners during speaking activities. Empirical findings indicate that PERMA-based instructional approaches can enhance students' well-being while simultaneously reducing negative emotions associated with language use, thereby creating a more supportive and engaging learning environment (Ly & Nguyen, 2025). Furthermore, the PERMA model has been found to exert a moderate to strong influence on speaking performance, with accomplishment emerging as a particularly significant factor in improving learners' confidence and communicative competence (Ly & Nguyen, 2024). These findings are further supported by broader reviews suggesting that PERMA not only enhances students' learning outcomes but also positively influences teachers' instructional practices and professional well-being, ultimately contributing to more effective and sustainable language education (Ngoc, 2024). Despite these encouraging results, existing studies remain limited in number, particularly in experimental and

context-specific applications within ELT, indicating a need for further research that integrates well-being frameworks with pedagogical innovation.

The integration of information technology in education has been widely explored, particularly in response to the increasing reliance on digital and AI-supported learning environments. Existing studies reveal that while technological adoption offers significant pedagogical potential, it is often accompanied by multiple challenges. For instance, teachers frequently encounter limitations in technological tools and digital competencies, along with difficulties in maintaining effective communication and interaction in online settings, which may lead to reduced spontaneity and a heightened sense of isolation (Cespedes, 2024). Despite these constraints, the emergence of advanced technologies, particularly artificial intelligence, has introduced new opportunities to enhance learning processes. The ethical and responsible use of AI tools, such as ChatGPT, has been shown to support critical thinking, cognitive flexibility, and self-regulation, thereby providing a conceptual foundation for their meaningful integration into teaching practices (Chauncey & McKenna, 2023). Furthermore, studies on blended and technology-mediated learning emphasize that effectiveness is not determined solely by the presence of technology, but rather by how it is pedagogically implemented. Learner-centred approaches in blended learning environments require strong teacher presence, well-designed collaborative activities, and a balanced integration of online and face-to-face instruction to ensure meaningful engagement (Stap et al., 2024). Similarly, technology-mediated instruction does not automatically improve learning outcomes, as its success depends heavily on contextual factors such as subject domain, institutional conditions, and instructional

design (Sibley et al., 2024)(Sibley et al., 2024).

In addition, research highlights generally positive attitudes among educators toward technological innovation, including generative AI, with many demonstrating openness across generational groups, although differences in perspectives still exist (Mahrishi et al., 2025). Teachers' acceptance of AI tools is strongly influenced by factors such as self-efficacy, perceived usefulness, and social norms, indicating the importance of professional development and institutional support (Kong et al., 2024). At the same time, concerns remain regarding overreliance on AI, potential reductions in creativity, and limitations in developing certain language skills, particularly in English language teaching contexts (Al-khresheh, 2024).

From a learner perspective, generative AI has been found to significantly enhance second language proficiency and self-regulation, particularly in informal learning contexts, although its impact on motivation remains less consistent (Guan et al., 2024). AI tools also support language development through personalized feedback across multiple skills, including grammar, vocabulary, reading, and writing, provided that their use is guided to maintain academic integrity and alignment with instructional goals (Kohnke, 2024). Beyond AI, immersive technologies such as virtual reality and collaborative digital platforms have demonstrated effectiveness in improving students' performance, fostering knowledge sharing, and sustaining engagement without increasing anxiety (Huang & Macgilchrist, 2024). Likewise, digital storytelling supported by collaborative frameworks has been shown to enhance both linguistic and digital competencies while promoting transformative learning experiences (Yu & Wang, 2025).

Moreover, the integration of broader technological innovations, including big

data, blockchain, and cloud computing, has been identified as a key strategy to improve curriculum relevance and teaching practices across disciplines, although many emerging tools remain underutilized in higher education (Al Ghatrifi et al., 2023). Despite these advancements, gaps persist in understanding how pre-service teachers perceive and engage with ICT, particularly in relation to their beliefs, self-efficacy, and educational background (Hülshoff & Jucks, 2024).

Taken together, these findings suggest that while information technology and AI hold substantial promise for enhancing teaching and learning, their effectiveness depends on thoughtful pedagogical integration, ethical use, and contextual adaptation. This highlights the need for research that not only examines technological tools but also integrates them with pedagogical and psychological frameworks to support both cognitive and affective dimensions of learning, as addressed in the present study.

Methodology

This study employed a qualitative research design as a preliminary phase of a larger research project investigating the implementation of PERMA-based learning with AI support in speaking for academic purposes. A qualitative approach was selected to capture students' experiences, perceptions, and developmental processes in depth, particularly in relation to anxiety, confidence, and speaking performance within an authentic classroom context.

The participants of this study were 42 regular undergraduate students from the Primary School Teacher Education Program (PGSD), batch 2024, in their fourth semester, who were enrolled in the English for Learning course. These participants were selected purposively as they represent non-English major students who are required to develop English competence for future teaching contexts.

Data were collected through triangulation to ensure the credibility and richness of findings. The primary data sources included (1) classroom observation, which focused on students' participation, interaction, and engagement during speaking activities; (2) student reflections, which captured learners' emotional responses, perceived challenges, and learning experiences; and (3) speaking performance records, which documented students' progress in pronunciation, fluency, and confidence over time.

The implementation of the learning process integrated PERMA-based instructional strategies with AI-assisted learning tools. During the program, students engaged in structured speaking activities supported by positive learning environments emphasizing emotional support, peer collaboration, and meaningful engagement. In addition, students utilized AI tools to review, evaluate, and improve their speaking performance prior to classroom sessions. Learning summaries were also submitted through Google Classroom to support reflective practice and continuous learning.

Data were analyzed using thematic analysis. The analysis involved data reduction, data display, and conclusion drawing to identify recurring patterns related to students' anxiety, engagement, and speaking development. The triangulation of multiple data sources strengthened the validity of the findings and provided a comprehensive understanding of how PERMA-based learning combined with AI support influenced students' argumentative speaking development.

Finding and Discussion

Finding

The first meeting was conducted as an introductory session to establish the learning environment and to observe students' initial responses toward

English-speaking activities. As illustrated in Figure 1, the classroom interaction was carried out through an online synchronous platform, where students participated in a video-based session. The visual data indicate that most students were present and actively connected to the session; however, their level of engagement varied significantly.



Figure 1. Initial online classroom session (Meeting 1) illustrating students' early participation, limited interaction, and low confidence in English-speaking activities

At this initial stage, students demonstrated relatively low confidence in using English as a medium of communication. This was evident from limited verbal participation, hesitant responses, and a tendency to rely on passive engagement, such as listening rather than actively speaking. Several students appeared to avoid direct interaction, as indicated by minimal facial expression changes and limited spontaneous responses during the session. This condition reflects an early-stage learning atmosphere characterized by anxiety and uncertainty.

From the observation data, it was also found that students were more comfortable using their first language during informal interaction, which indicates a gap between their current communicative competence and the expected use of English in academic speaking contexts. The interaction pattern during this meeting remained largely teacher-centered, with the lecturer playing a dominant role in guiding the session, initiating communication, and maintaining participation.

In terms of emotional engagement, students showed mixed responses. While some students appeared attentive and responsive, others displayed signs of hesitation and low confidence, particularly when invited to speak. This aligns with their initial reflections, in which they expressed concerns about making mistakes, lack of vocabulary, and fear of negative evaluation.

Despite these challenges, the first meeting played a crucial role in establishing a supportive learning environment. The lecturer introduced PERMA-based principles by creating a positive and non-threatening atmosphere, encouraging participation without pressure, and fostering a sense of belonging among students. Peer presence in the online setting also began to contribute to the development of relational support, although it was still in an early stage.

Overall, the findings from Meeting 1 indicate that students entered the program with noticeable speaking anxiety, limited confidence, and low active participation. However, the initial implementation of a supportive and structured learning environment laid the foundation for subsequent development in engagement and speaking performance.



Figure 2. Increased student presence and emerging engagement during Meeting 2, indicating improved comfort and initial participation in speaking tasks

The second meeting demonstrated a noticeable shift in students' engagement and participation compared to the initial session. As illustrated in Figure 2, the learning environment appeared more dynamic, with a higher number of

students actively displaying their presence through video and facial expressions. This visual evidence suggests an increased level of comfort and familiarity with the learning setting. Unlike the first meeting, students began to show more willingness to engage in classroom interaction. Verbal participation gradually increased, although it remained guided and structured by the lecturer. Students were more responsive when prompted and showed reduced hesitation when attempting to express their ideas in English. This indicates an early stage of confidence development, where learners started to move from passive observation to active involvement.

From an interactional perspective, the classroom dynamics became less teacher-centered and more participatory. While the lecturer still played a central role in facilitating the discussion, students began to contribute more frequently, particularly in short responses and guided speaking tasks. Peer presence also became more visible, contributing to a sense of shared learning experience.

Emotionally, students appeared more relaxed and engaged. The reduction in visible anxiety can be associated with the continued implementation of PERMA-based learning principles, particularly in fostering positive emotion and supportive relationships. The classroom atmosphere was maintained as non-threatening, allowing students to participate without fear of judgment.

In addition, the integration of AI tools began to show early impact during this stage. Students reported that they had started to use AI-assisted platforms to prepare their speaking responses before class. This preparatory process contributed to increased readiness and reduced anxiety, as students felt more equipped with vocabulary and sentence structures.

The findings from Meeting 2 indicate a transitional phase in students' learning

development. While challenges in fluency and accuracy were still present, there was a clear improvement in engagement, participation, and emotional readiness. These findings suggest that the combination of PERMA-based learning and AI support began to positively influence students' confidence and willingness to communicate in English.



Figure 3. Growing confidence and more active participation during Meeting 3, showing increased willingness to communicate in English

The third meeting revealed a more significant development in students' confidence and participation in speaking activities. As illustrated in Figure 3, the classroom atmosphere appeared more interactive, with a greater number of students actively engaging through visible expressions, gestures, and verbal responses. Compared to previous meetings, students demonstrated increased readiness to participate in English-speaking tasks.

At this stage, students began to show more spontaneous engagement during the session. They were not only responding to the lecturer's prompts but also initiating short expressions and reactions, indicating a gradual shift toward more active communication. Although their utterances were still relatively simple, there was a noticeable improvement in fluency and willingness to speak.

From an affective perspective, students appeared more relaxed and less anxious when participating in speaking activities. The fear of making mistakes, which was prominent in the first meeting, was reduced as students became more familiar

with the supportive learning environment. This suggests that the consistent implementation of PERMA-based learning contributed to the development of positive emotional states and increased self-confidence.

Peer interaction also became more evident in this session. Students began to show greater awareness of their classmates' presence, which contributed to a more collaborative learning atmosphere. The sense of belonging and relational support appeared stronger, reflecting the "Relationships" component of the PERMA framework.

Furthermore, the role of AI-assisted learning became more visible in this meeting. Students demonstrated better preparation in their speaking tasks, as reflected in more structured responses and improved vocabulary use. This indicates that the use of AI tools supported students in organizing their ideas and rehearsing their speaking before participating in the classroom.

Despite these improvements, some students still exhibited hesitation, particularly in producing longer or more complex utterances. This suggests that while confidence and participation had increased, the development of advanced speaking competence was still in progress.

The findings from Meeting 3 indicate a clear progression from initial anxiety toward increased confidence and engagement. Students began to transition from passive participants to more active speakers, supported by a positive learning environment and the integration of AI-assisted preparation. This stage represents a critical turning point in the development of students' argumentative speaking readiness.

The fourth meeting demonstrated a more advanced stage of students' development in both participation and speaking performance. As illustrated in Figure 4, students were increasingly engaged not only individually but also collaboratively,

as seen in several group-based interactions and shared learning activities. This indicates a shift from individual participation toward more socially constructed learning.



Figure 4. Development of structured speaking and collaborative interaction during Meeting 4, reflecting more student-centered learning

At this stage, students began to produce more structured spoken responses. Their utterances showed early signs of organization, including simple claims, supporting ideas, and attempts to elaborate their opinions. Although the structure was not yet fully developed in terms of formal argumentative frameworks, there was a clear improvement in how students expressed their ideas compared to previous meetings.

Interaction patterns also became more student-centered. Students were more actively involved in peer discussions, and some began to respond to their classmates' ideas rather than relying solely on lecturer prompts. This reflects an increase in communicative confidence and a growing willingness to engage in meaningful interaction using English.

From an affective perspective, students appeared significantly more comfortable and confident. The learning environment, which consistently emphasized positive reinforcement and peer support, contributed to reducing anxiety and encouraging risk-taking in speaking. Students were more willing to speak despite making errors, indicating a shift from fear-based participation to confidence-driven engagement.

The role of AI-assisted learning became more evident in improving the quality of students' speaking performance. Students demonstrated better preparation, clearer sentence construction, and more appropriate vocabulary use. This suggests that AI tools supported not only linguistic accuracy but also idea organization, which is essential for argumentative speaking.

In addition, collaborative learning played an important role in this meeting. Students working in small groups showed increased interaction, mutual support, and shared responsibility in completing speaking tasks. This reflects the strengthening of the "Relationships" and "Engagement" components within the PERMA framework.

However, some limitations remained, particularly in the depth of argumentation and the ability to sustain longer speaking turns. While students were able to express ideas more clearly, their arguments were still relatively basic and required further development.

The findings from Meeting 4 indicate a significant progression toward more structured, confident, and interactive speaking performance. Students were not only more engaged but also began to demonstrate the foundational elements of argumentative speaking, supported by both PERMA-based learning and AI-assisted preparation.



Figure 5. Enhanced fluency, confidence, and clarity of expression during Meeting 5, indicating progress in students' speaking performance

The fifth meeting reflected a more advanced stage of students' development in speaking performance, particularly in

terms of fluency, confidence, and clarity of expression. As illustrated in Figure 5, students appeared more prepared and actively engaged in the learning process, with increased participation across the session. Compared to earlier meetings, students demonstrated greater readiness to speak and interact using English.

At this stage, students were able to produce longer and more coherent spoken responses. Their speech showed improved fluency, with fewer pauses and reduced hesitation. In addition, students began to express their ideas more clearly, indicating a growing ability to organize thoughts before speaking. This development suggests that students had become more accustomed to using English as a medium of communication in the classroom.

From an argumentative perspective, students started to demonstrate clearer elements of argumentation. While still at a developing level, their responses increasingly included basic claims, simple reasoning, and attempts to support their opinions. This indicates a progression from simple expression toward more purposeful and structured academic speaking.

Emotionally, students showed a significant increase in confidence. The anxiety observed in earlier meetings was substantially reduced, and students appeared more comfortable taking risks in speaking. They were less concerned about making mistakes and more focused on conveying meaning. This shift reflects the successful implementation of a supportive learning environment grounded in PERMA principles, particularly positive emotion, engagement, and accomplishment.

The influence of AI-assisted learning was also more evident in this meeting. Students demonstrated better vocabulary selection, more accurate sentence construction, and improved idea organization. This suggests that their independent preparation using AI tools

contributed to higher-quality speaking performance during classroom activities. Furthermore, peer interaction continued to strengthen. Students were more responsive to one another, and collaborative learning became more natural and sustained. This reflects the development of a learning community in which students supported each other's progress.

Despite these improvements, some students still experienced minor difficulties in maintaining extended arguments and using more complex linguistic structures. However, these limitations did not significantly hinder their overall communication effectiveness.

Overall, the findings from Meeting 5 indicate a substantial improvement in students' speaking performance. Students demonstrated higher levels of fluency, confidence, and early argumentative competence, marking a significant transformation from the initial condition observed in Meeting 1. This progression highlights the effectiveness of integrating PERMA-based learning with AI support in enhancing students' readiness for speaking for academic purposes.

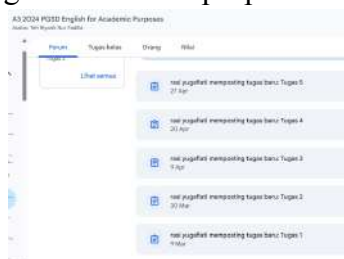


Figure 6. Implementation of structured Google Classroom tasks across meetings, supporting continuous practice and independent learning

As illustrated in Figure 6, students were required to complete a series of structured assignments distributed consistently across meetings. Specifically, each meeting was supported by five tasks designed to reinforce speaking development and reflective learning.

The data indicate that students consistently engaged with these tasks across multiple sessions, demonstrating sustained participation beyond synchronous classroom interaction. The structured nature of the assignments provided repeated opportunities for practice, enabling students to gradually build their speaking competence over time.

From a behavioral perspective, the regular completion of five tasks in each meeting reflects a high level of learner commitment and responsibility. Students were not only attending the sessions but also actively participating in follow-up activities, indicating the development of disciplined learning habits and increased autonomy.

Cognitively, the tasks functioned as scaffolding tools that guided students through the process of preparing, practicing, and refining their speaking performance. The repetition across five tasks per meeting allowed students to revisit similar skills with increasing complexity, thereby supporting deeper learning and retention. In addition, the integration of AI-assisted tools during task completion enabled students to receive immediate feedback, improve linguistic accuracy, and organize their ideas more effectively.

From an affective perspective, the asynchronous nature of the tasks reduced performance pressure and allowed students to engage in learning at their own pace. This contributed to a gradual decrease in anxiety and an increase in confidence, as students had sufficient time to prepare before producing spoken responses.

Furthermore, the consistent submission of tasks contributed to the "Accomplishment" dimension of the PERMA framework. Students were able to observe their own progress through completed assignments, which fostered a sense of achievement and motivation to continue improving.

These findings suggest that the systematic integration of five structured tasks per meeting through Google Classroom played a crucial role in sustaining engagement, enhancing autonomy, and supporting the development of students' argumentative speaking skills.

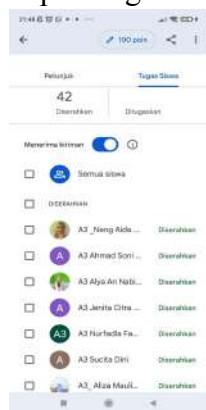


Figure 7. Complete task submission by all 42 students, demonstrating high participation and sustained engagement in asynchronous learning

Further evidence of sustained student engagement is reflected in the task submission data presented in Figure 7. The data show that all 42 students successfully submitted their assigned tasks through Google Classroom. This indicates a high level of participation and compliance with the learning requirements.

The complete submission rate demonstrates that students were not only present during synchronous sessions but also actively involved in asynchronous learning activities. This consistency suggests that the instructional design, which required five tasks per meeting, effectively encouraged students to remain engaged throughout the learning process. From a behavioral standpoint, the full participation of all students reflects strong learning commitment and responsibility. It also indicates that students were able to manage their time and complete the required tasks despite potential challenges associated with online learning environments.

In addition, the high submission rate supports the effectiveness of integrating structured tasks into the learning process. The tasks functioned as continuous practice opportunities that reinforced speaking skills and maintained students' involvement over time.

From an affective perspective, this level of participation may also indicate increased motivation and reduced anxiety. As students became more familiar with the task format and expectations, they appeared more confident in completing their assignments. The structured and repetitive nature of the tasks likely contributed to building a sense of routine and learning security.

Moreover, the use of Google Classroom facilitated transparent monitoring of student progress, allowing both the lecturer and students to track performance and completion. This aligns with the "Accomplishment" dimension of the PERMA framework, where visible progress contributes to a sense of achievement.

These findings provide strong evidence that the integration of structured, repeated tasks supported not only skill development but also consistent student engagement and participation throughout the program.

Discussion

The findings of this study reveal a clear developmental trajectory from initial anxiety to increased confidence, engagement, and speaking performance among PGSD students. At the beginning of the program, students exhibited low confidence, limited participation, and a strong tendency to avoid speaking in English. This condition is consistent with previous studies indicating that non-English major students often experience low confidence due to limited vocabulary, grammar mastery, and lack of speaking practice (Af'al, 2025; Yulia, 2017). The initial reliance on the first language and passive participation also

reflects a gap between learners' current competence and the expected level of academic English use.

However, the gradual improvement observed from Meeting 2 to Meeting 5 demonstrates that the integration of PERMA-based learning effectively addressed these affective barriers. The reduction of anxiety and increased willingness to communicate align with findings that PERMA-based approaches enhance emotional well-being and create a supportive learning environment for EFL learners (Ly & Nguyen, 2025). The consistent emphasis on positive emotion, supportive relationships, and meaningful engagement enabled students to shift from fear-based participation toward confidence-driven interaction.

The progression in students' engagement and participation also supports the theoretical assumption that emotional and social dimensions play a crucial role in language learning. As students became more comfortable, they began to actively engage in classroom interaction, which reflects the "Engagement" and "Relationships" components of the PERMA framework. This finding is in line with previous research suggesting that PERMA contributes to increased motivation, resilience, and learning participation (Turner et al., 2023; Nadhirah et al., 2025). The emergence of peer interaction and collaborative learning in later meetings further indicates that learning is not only an individual process but also socially constructed.

In addition to affective improvement, the findings also demonstrate cognitive and performance development in students' speaking ability. Students gradually moved from producing short, hesitant responses to more structured and coherent utterances, including early forms of argumentation. This progression confirms that supportive learning environments combined with repeated practice can enhance speaking performance. It also aligns with research emphasizing the

importance of interactive and learner-centered approaches in improving speaking engagement and communicative competence (Puspitasari, 2016).

The role of AI-assisted learning in this study further strengthens the findings. Students' increased preparedness, improved vocabulary use, and better organization of ideas suggest that AI tools functioned as effective scaffolding mechanisms. This supports previous studies indicating that AI can enhance self-regulation, critical thinking, and language development through personalized feedback (Chauncey & McKenna, 2023; Kohnke, 2024). Moreover, the use of AI before classroom interaction reduced anxiety and increased students' readiness to speak, confirming that technology can play a mediating role in bridging the gap between competence and performance.

The integration of synchronous and asynchronous learning through Google Classroom also contributed significantly to students' development. The requirement of completing five tasks per meeting provided continuous practice and reinforced learning beyond classroom interaction. The high submission rate, with all 42 students completing their tasks, reflects strong engagement and learning commitment. This finding supports the argument that effective technology integration depends not only on the tools used but also on the instructional design that promotes active participation (Stap et al., 2024; Sibley et al., 2024).

Furthermore, the structured tasks functioned as scaffolding that facilitated gradual improvement in speaking skills. The repetitive yet progressive nature of the tasks enabled students to build competence over time, which is consistent with the concept of sustained practice in language acquisition. From a psychological perspective, the completion of tasks also contributed to the "Accomplishment" dimension of

PERMA, where visible progress enhances motivation and confidence. This is supported by findings that accomplishment plays a significant role in improving learners' communicative competence (Ly & Nguyen, 2024).

Taken together, these findings suggest that the integration of PERMA-based learning with AI-assisted support and structured digital tasks provides a comprehensive approach to addressing both affective and cognitive challenges in speaking for academic purposes. The combination of emotional support, technological scaffolding, and continuous practice creates a learning environment that not only improves speaking performance but also fosters long-term learner engagement and autonomy.

Conclusions

This study shows that the integration of PERMA-based learning with AI-assisted support effectively enhances students' engagement, confidence, and speaking performance in an English for Academic Purposes context. Initially, students demonstrated anxiety and low participation; however, they gradually developed greater fluency, confidence, and early argumentative competence. The use of AI tools supported students' preparation and reduced anxiety, while structured tasks through Google Classroom ensured continuous practice and sustained engagement. These findings suggest that combining emotional support, technological scaffolding, and structured learning design provides an effective approach to improving speaking skills among non-English major students. Further research is recommended to examine its long-term impact and broader applicability.

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