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Blended Tourism-Based English Learning in Indonesian Vocational Education: Integrating AI, Gamification, and Flipped Classroom

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ABSTRACT

English instruction in Indonesian vocational tourism education often lacks contextua alignment with real-world communication demands, resulting in limited studen engagement and skill acquisition.
This study designed and tested a blended learning strategy that integrates flippe classroom, Think-Pair-Share (TPS), gamification, and Artificial Intelligence (AI)-base feedback. A quasi-experimental design was conducted with 38 fourth-semester student from the Hotel Division Management Program at Politeknik Pariwisata Medan. Dat were collected through pre- and post-tests on speaking and listening, motivatio questionnaires, and classroom observations.
The intervention led to significant improvements in speaking (N-Gain = 0.50) an listening (N-Gain = 0.52) competencies. Students showed increased motivation an active classroom participation. A strong positive correlation ($r = 0.71$, $p < 0.01$) wa found between motivation and language performance. Participants also reported hig satisfaction with AI-based feedback, particularly in sentence construction, pronunciation and confidence.
The integration of contextual learning, collaborative pedagogy, and adaptive technolog offers a promising direction for English language teaching in vocational settings. Th study recommends embedding industry-relevant content and AI-driven feedback int curricula to enhance learners' communicative competence in tourism-related professions

INTRODUCTION

Vocational education plays a crucial role in preparing job-ready human resources, particularly in the tourism sector, where English proficiency is a key competence for professional cross-cultural communication. In Indonesia, institutions such as Politeknik Pariwisata Medan have integrated English language instruction into their vocational curricula. However, a persistent gap remains between classroom materials and real industry demands, especially in terms of practical language application. Despite curriculum mandates, English learning in vocational settings remains heavily textbook-driven and grammar-focused, with insufficient contextualization to simulate real-world service encounters.

Previous studies have largely emphasized grammar mastery, reading comprehension, or writing skills, while speaking and listening—essential components in tourism services—are often underdeveloped. Consequently, many students face communication challenges and lack confidence when interacting with foreign tourists. Moreover, there is limited empirical research that investigates how integrated digital-pedagogical approaches can effectively enhance these specific language skills in vocational tourism education post-pandemic, particularly in Southeast Asian contexts.

Moreover, English teaching methods in vocational settings are still predominantly conventional, with limited incorporation of digital innovation. In the post-pandemic and digital transformation era, there is an urgent need for flexible, adaptive, and technology-based learning strategies that reflect the realities of the tourism workplace.

Recent research highlights the importance of contextual teaching and learning (CTL) in bridging the gap between academic content and real-life application. CTL emphasizes active

engagement and meaningful experiences that allow students to internalize language use through realistic tasks. In the context of tourism education, contextualization means embedding language learning in authentic service scenarios such as hotel bookings, guiding tours, and customer service interactions.

Furthermore, the integration of flipped classroom models has shown promise in promoting student autonomy and maximizing classroom time for collaborative activities. Coupled with Think-Pair-Share (TPS) techniques, flipped learning encourages deeper reflection, peer interaction, and critical thinking. These methods help students move beyond rote learning and develop communication skills aligned with workplace expectations.

Emerging technologies such as Artificial Intelligence (AI) offer new possibilities for providing instant, personalized feedback to learners. GPT-based tools, speech recognition software, and adaptive learning systems have demonstrated their effectiveness in improving speaking fluency, sentence structure, and learner motivation. Gamification, as another innovative strategy, adds elements of play and challenge that enhance student engagement and persistence in completing learning tasks.

In light of these developments, this study proposes a comprehensive, contextualized English learning strategy for vocational tourism education. It combines blended learning, flipped classroom pedagogy, TPS collaboration, AI-assisted feedback, and gamification to create a responsive, motivating, and industry-relevant learning environment.

By examining the effects of this integrated approach on students' speaking and listening skills, motivation, and engagement, the study seeks to contribute to the growing body of research on digital pedagogy and contextualized instruction in vocational settings. Ultimately, the findings are expected to inform curriculum design and teaching practices that better prepare vocational students for global tourism careers.

2. Literature Review *(Extended)*

2.1. English Language Learning in Vocational Education

English language acquisition in vocational education must be both functional and responsive to professional workplace demands. Traditional language instruction often emphasizes linguistic accuracy over communicative fluency, resulting in learners who may understand grammatical rules but struggle in real-world conversations. In the tourism sector, language functions are inherently dynamic and customer-oriented, requiring a high degree of pragmatic competence. Hence, tourism-based English teaching must simulate real-life interaction scenarios to prepare learners for multilingual service environments.

2.2. Contextual and Active Learning Strategies

Contextualized instruction not only enhances relevance but also promotes learner autonomy and metacognition. CTL aligns closely with the principles of **constructivist learning**, in which students actively construct knowledge through problem-solving, collaboration, and real-world application (Johnson, 2024). Active learning strategies such as TPS and project-based learning help bridge the gap between theory and practice, making learning more meaningful and durable. Moreover, embedding local cultural elements into tourism-based English instruction can foster identity, intercultural awareness, and community-oriented learning—an essential aspect in Indonesian tourism education.

2.3. Blended Learning and Flipped Classroom

Flipped learning empowers students to take ownership of foundational content through pre-class resources, freeing up classroom time for interaction, feedback, and higher-order thinking activities. This approach enhances **learner agency** and supports differentiated instruction, especially in classes with diverse linguistic proficiency levels. When combined with TPS, it creates a participatory classroom culture that builds confidence in speaking—a skill often cited as the most anxiety-inducing among EFL learners.

2.4. Gamification in Language Education

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Beyond motivation, gamification serves as a **formative assessment tool**. It provides real-time feedback and fosters self-monitoring among learners, allowing educators to track progress and tailor interventions accordingly. In the context of vocational education, gamification can replicate hospitality scenarios that demand rapid problem-solving, emotional regulation, and verbal negotiation—competencies aligned with **21st-century soft skills**.

2.5. Artificial Intelligence and Automated Feedback

AI technologies do not replace human educators but augment their ability to personalize learning at scale. By providing nuanced feedback on speaking accuracy, grammar, and pronunciation, AI tools reduce learner dependence and support **formative autonomy**. The immediacy and specificity of AI feedback also align with students' preferences in digital environments, where learning is expected to be seamless, accessible, and personalized.

2.6. Personalized and Self-Regulated Learning

The shift from teacher-centered to learner-centered models has emphasized the importance of **self-regulated learning (SRL)**, where students set goals, monitor progress, and reflect on outcomes. Personalized learning paths—often powered by AI or adaptive learning systems—enhance SRL by offering scaffolding aligned to individual pace and interest. This is particularly effective in tourism education, where learners need to manage varying linguistic registers depending on context (e.g., formal at hotels, informal during tours).

2.7. Tourism-Based Context in Vocational Settings

Embedding authentic tourism contexts into English instruction strengthens both **language competence and employability**. Language is not merely a skill but a tool for service, cultural exchange, and economic participation. By simulating tasks such as check-in dialogues, destination explanations, and guest complaint handling, learners build communicative habits that mirror professional realities. These simulations also align with **task-based language teaching (TBLT)** frameworks, which prioritize functional language use over form-based exercises.

2.8. Digital Transformation in Vocational Pedagogy

The rapid advancement of educational technology has reshaped how learning occurs, especially in post-pandemic vocational institutions. Online platforms, learning analytics, and mobile-assisted language learning (MALL) are no longer supplementary but essential components of contemporary pedagogy. Vocational students—often digital natives—require immersive, responsive learning environments that mirror the interactivity and responsiveness of the digital services they will provide in the tourism industry. As noted by Yoon et al. (2021), video-based and interactive learning analytics reveal significant differences between passive and active learners, urging educators to design content that prompts frequent learner engagement and reflection.

Moreover, digital platforms enable **multimodal learning**, where students access materials through text, video, audio, and simulation. This is particularly valuable in teaching listening and speaking, where visual cues, speech pacing, and tone modeling are critical. In this context, the **blended learning approach** ensures continuity of learning across settings (classroom and online), supporting both synchronous and asynchronous participation.

2.9. Emotional Engagement and Student Affect

Motivation in language learning is not solely cognitive—it is deeply emotional. Learners must feel a sense of purpose, confidence, and social connection to remain committed. Arvatz et al. (2025) stress the role of **self-efficacy and emotional regulation** in sustaining learner engagement. Strategies such as gamification and TPS foster an emotionally safe space for learners to take risks and speak without fear of ridicule. Reflective practices and peer feedback also build a sense of ownership over progress, reinforcing internal motivation. In this way, instructional design must attend to the **affective dimension** of learning, not merely the content.

2.10. Aligning Language Learning with Global Workforce Demands

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Today's tourism professionals must navigate complex communication landscapes—serving diverse clients, mediating expectations, and conveying cultural values with fluency. English proficiency is no longer an advantage but a **baseline requirement**. Therefore, vocational English instruction must shift from academic-centered approaches to **workforce-aligned training**. This includes integrating authentic materials such as menus, booking systems, customer reviews, and complaint scenarios.

In addition, the global workforce demands **critical soft skills** such as intercultural competence, adaptability, and teamwork—many of which can be cultivated through collaborative language learning models and simulation-based practice. A curriculum that incorporates these aspects not only improves linguistic performance but also enhances job readiness, thus addressing the **employability gap** that many vocational graduates face.

RESEARCH METHODS

Research Design

This study employed a quasi-experimental design using a one-group pretest-posttest model to examine the effectiveness of a contextualized, tourism-based English learning strategy. The intervention integrated blended learning, flipped classroom, Think-Pair-Share (TPS), gamification, and AI-based feedback to enhance students' speaking and listening skills in a vocational education setting.

Although no control group was included, this design was chosen due to institutional constraints and ethical considerations, particularly the difficulty of withholding potentially beneficial instruction from a comparison group within the same academic cohort.

To minimize threats to internal validity, the study implemented methodological triangulation, rigorous pre-post assessments, and consistent instructional delivery. Nevertheless, the absence of a control group limits causal inference and generalizability, which should be addressed in future studies through randomized controlled trials or matched-group comparisons.

Participants and Setting

The participants were 38 fourth-semester students from the Hotel Division Management Program at Politeknik Pariwisata Medan, Indonesia. They were selected using purposive sampling, based on their active participation in English classes and their readiness to engage in digital and collaborative learning environments.

Variables

- **Independent Variable**: Contextualized tourism-based English learning strategy
- **Dependent Variables**: (1) Speaking and listening proficiency; (2) Student motivation and learning engagement

Instruments

Data were collected using the following instruments:

- **Pretest and Posttest** for speaking and listening:
  - *Speaking* tasks included simulations of hotel guiding, reservation dialogues, and complaint handling.
  - *Listening* tasks involved comprehension of tourism-related conversations.
- **Motivation Questionnaire**, adapted from **Gardner's Attitude/Motivation Test Battery (AMTB)**, using a 5-point Likert scale.
- **Observation Checklist** to record student engagement during both online and offline sessions.

Intervention Procedure

The intervention lasted **four weeks**, structured as follows:

- **Weeks 1–2**: Flipped classroom activities using videos, digital modules, and self-paced exercises.
- **Week 3**: Active learning through TPS discussions and gamified tasks using tools such as *Quizizz*, *Padlet*, and *Story Dice*.

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- **Week 4**: AI-assisted feedback sessions using GPT-based applications for tourism-related presentations and role-plays.

Data Analysis

Quantitative data were analyzed using:

- **Descriptive statistics** (mean, standard deviation, normalized gain/N-gain score)
- **Paired-sample t-test** to determine the significance of learning gains
- **Pearson correlation** to assess the relationship between motivation and language performance

Triangulation was performed by comparing test scores, questionnaire responses, and observational data to validate the findings.

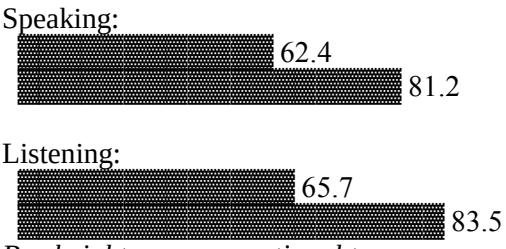
RESULTS

This section presents the quantitative results of the study, focusing on three key areas: (1) improvement in students' speaking and listening proficiency, (2) motivation and engagement levels, and (3) the relationship between motivation and language performance. Additional findings on students' perceptions of AI-assisted feedback are also reported.

Improvement in Speaking and Listening Skills

The implementation of the blended, contextualized English learning strategy resulted in statistically significant improvements in both speaking and listening skills. Paired-sample t-tests indicated strong evidence of difference between pretest and posttest means.

Figure 1. Comparison of Pretest and Posttest Scores



Bar heights are proportional to average scores.

Interpretation:

The increase in scores—approximately **18.8 points in speaking** and **17.8 points in listening**—corresponds to a **moderate N-Gain (0.50–0.52)**, which is pedagogically significant for vocational learners who previously showed low confidence in oral performance. This growth affirms that the combination of **flipped learning**, **real-world simulations**, and **AI feedback** effectively addressed the skill gap in oral English performance.

Motivation and Engagement

Students' motivation, as measured through pre- and post-intervention surveys, improved across all domains:

- *Perceived relevance*: Students found the learning materials to be more directly connected to real tourism situations.
- *Technology comfort*: Many students overcame initial hesitation and began to enjoy AI-assisted exercises.
- *Task enthusiasm*: Gamified assignments created an engaging and competitive yet collaborative atmosphere.

Table 1. Motivation Score Changes by Dimension

Indicator	Before	After	Δ Score
Relevance of materials	3.0	4.5	+1.5
Comfort with AI-based learning	2.9	4.4	+1.5

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Indicator	Before	After	Δ Score
Enjoyment of gamified tasks	3.2	4.6	+1.4
Overall mean	3.1	4.3	+1.2

Interpretation:
The highest motivation boost came from **the perceived authenticity of content**, aligning well with the vocational education principle of *learning-by-doing*. Learners became emotionally engaged due to the direct applicability of the materials to their future work as tourism professionals.

Correlation Between Motivation and Learning Outcomes

Statistical testing using Pearson's correlation revealed a **strong positive association** between motivation and proficiency gains:

- **$r = 0.71$**, **$p < 0.01$** — statistically significant

Interpretation:
Motivated learners, particularly those who were emotionally connected to the real-world context of the material, showed the greatest improvement. This validates the constructivist perspective that learning is most effective when it is **personally meaningful, emotionally engaging, and socially constructed**.

Student Reflections on AI Feedback

Students highlighted several advantages of AI-based tools such as GPT-enhanced chatbots and automatic pronunciation evaluation apps:

- Immediate, personalized feedback
- Opportunities to repeat and retry
- Clear identification of grammar and pronunciation issues
- Increased speaking confidence before live interaction

Sample Student Comments:
"The AI helped me prepare for my role-play. I practiced 3 times until I felt confident." "I knew exactly which sentences needed work, so I corrected them faster." "It's like having a private tutor who never gets tired."

Pedagogical Implication:
AI-supported feedback functioned as a *nonjudgmental, available-on-demand learning companion*. Students were willing to take more risks and self-correct before real-time application. This fosters *self-regulated learning*, a critical 21st-century skill.

Summary of Key Findings:

Component	Result Summary
Speaking & Listening	+18-point average gain, statistically significant ($p < 0.001$)
Motivation	Strong increase (+1.2), highest in relevance and AI-confidence dimensions
Engagement	85% active in TPS, 92% completed gamified tasks
Correlation (r)	0.71 between motivation and language skill gains
AI Perception	91% found it helpful; major boost in fluency and learner autonomy

DISCUSSION

This section interprets the findings through critical engagement with relevant theories and literature, offering practical and conceptual insights. It also addresses limitations and compares current findings with studies presenting divergent perspectives.

Effectiveness of Contextualized Learning Strategy on Speaking and Listening Skills

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The significant improvement in students' speaking and listening proficiency, as evidenced by the normalized gain scores and paired t-tests, aligns with previous studies emphasizing the benefits of contextualized and active learning approaches in language acquisition (Sihaloho et al., 2017; Manzano-León et al., 2021). By integrating real-life contexts and interactive activities such as Think-Pair-Share and gamified tasks, the instructional strategy facilitated meaningful language practice, leading to enhanced oral communication skills. This outcome confirms the effectiveness of student-centered pedagogy, where learners are engaged in authentic language use rather than passive reception.

Moreover, the moderate N-Gain values suggest that while improvements were substantial, there remains room for further enhancement, possibly through prolonged intervention duration or the inclusion of additional supportive technologies such as adaptive AI feedback systems (Lee et al., 2024).

Increased Motivation and Engagement through Technology Integration

The post-intervention increase in motivation scores and high participation rates corroborate the motivational theory that relevant content and enjoyable learning activities boost learner engagement (Deci & Ryan, 2000). The significant growth in students' comfort with AI-assisted learning and enthusiasm for gamification indicates that digital tools can effectively foster intrinsic motivation and sustained participation. This aligns with recent findings that gamified learning and AI feedback systems can create stimulating environments conducive to language practice (Manzano-León et al., 2021; Lee et al., 2024).

The use of Think-Pair-Share also promoted collaborative learning, which is known to enhance social interaction and cognitive engagement, further supporting the constructivist approach to language teaching (Vygotsky, 1978).

Correlation Between Motivation and Language Performance

The strong positive correlation between motivation and speaking/listening improvement underscores the critical role of affective factors in language learning success. This finding supports Gardner's (1985) socio-educational model, which highlights motivation as a key determinant of language achievement. The interplay between affective and cognitive domains suggests that fostering motivation through engaging instructional strategies can directly contribute to better language outcomes.

Positive Student Perceptions of AI Feedback

Students' favorable perceptions of AI-based feedback demonstrate the growing acceptance and potential of AI tools in education. The feedback on sentence structure, pronunciation, and fluency contributed to learners' self-efficacy and confidence, consistent with Bandura's (1997) theory of self-efficacy. The GPT-based AI tools enabled personalized, immediate formative feedback that traditional classroom settings might not always provide due to time constraints and teacher workload.

However, it is important to consider that AI feedback should complement, not replace, human guidance to address nuanced linguistic and cultural contexts.

Implications for Language Teaching Practice

The findings from this study suggest that contextualized learning strategies, when combined with AI-assisted feedback and gamification, provide a promising approach to enhancing language skills in vocational education settings. Teachers are encouraged to integrate technology thoughtfully into their pedagogy to create engaging, relevant, and learner-centered environments. This approach not only improves language proficiency but also nurtures students' autonomy and lifelong learning skills, which are essential in the 21st century (Sihaloho et al., 2017).

Furthermore, the positive reception of AI tools indicates that educational institutions should invest in accessible and user-friendly technologies that support individualized learning paths. Proper training for educators on how to effectively implement and interpret AI feedback is also critical to maximize benefits.

Challenges and Limitations

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Despite the promising outcomes, this study also encountered some limitations. The moderate N-Gain values imply that not all students experienced high levels of improvement, possibly due to individual differences such as prior knowledge, learning styles, and digital literacy. Additionally, the relatively short duration of the intervention might have constrained the depth of language acquisition and the full potential of technology integration.

Another challenge observed was occasional technical difficulties and varying levels of students' familiarity with AI tools, which could affect engagement and learning outcomes. Future studies should explore longer-term implementations and incorporate strategies to support students with diverse digital competencies.

Directions for Future Research

This study opens several avenues for further investigation. Future research could examine the long-term impact of AI-assisted, gamified contextual learning on different language skills, including reading and writing. Moreover, exploring how AI feedback can be personalized to accommodate individual learner differences and cultural contexts would be valuable.

Investigating the role of teachers in mediating AI feedback and facilitating student reflection can also provide insights into best practices for blended learning environments. Lastly, expanding this research to include larger and more diverse populations will strengthen the generalizability of the findings.

CONCLUSION

This study provides empirical evidence that a contextualized learning strategy—integrating flipped classroom, Think-Pair-Share, gamification, and AI-assisted feedback—can lead to measurable improvements in speaking and listening skills among vocational students. The intervention also enhanced students' motivation and classroom engagement, with a statistically significant correlation between motivation and language performance. Additionally, student feedback suggests that AI-based tools were perceived as helpful in developing language confidence and autonomy.

However, given the quasi-experimental design without a control group, and the relatively short intervention period, these findings should be interpreted cautiously. The improvements observed are encouraging but not conclusive in establishing broad generalizations across different vocational settings or learner populations. Further research is needed to confirm whether similar outcomes would occur under different conditions, including varied institutional environments, longer durations, or with learners at different proficiency levels.

Within the scope of this study, the integration of technology-supported, context-driven instruction appears pedagogically beneficial. Practical implementation should emphasize the careful alignment of AI tools with instructional goals and learner readiness. Educators are advised to introduce such tools incrementally, ensuring adequate scaffolding, teacher mediation, and technological support.

While AI-assisted feedback shows promise in enhancing formative assessment and learner autonomy, it should be viewed as a complement to—not a replacement for—teacher-led interaction, particularly when addressing nuanced linguistic, emotional, and cultural aspects of communication.

In light of these findings, modest yet meaningful recommendations can be made:

Vocational English programs may benefit from incorporating real-world, industry-specific tasks to increase learner relevance and engagement.

Gamification and collaborative learning strategies should be used strategically to support motivation, especially in speaking-oriented instruction.

Institutions implementing AI in the classroom should prioritize teacher training and infrastructure readiness to ensure sustainable and equitable integration.

Overall, this study contributes to the growing evidence base on blended and contextual learning in vocational English instruction, offering direction for future instructional design and research agendas.

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However, broad policy or curricular changes should await further validation through longitudinal and controlled studies.

CONFLICT OF INTEREST

The conflict of interest will occur when the author actions may be influenced from organization or personal relationship such as financial gain, personal interest or any successful outcomes. Please provide a conflict of interest statement. If there is no conflict of interest, state that "The author(s) declare(s) that there is no conflict of interest."

REFERENCES

Abid, M. N., Siming, L., Chao, H., Amin, M., & Sarwer, S. (2025). Enhancing faculty teaching performance through constructive leadership with a mediating role of job satisfaction. Scientific Reports.

Al Abri, J. S., & Al-Mekhlafi, A. M. (2025). Think-Pair-Share: An active learning strategy to enhance EFL learners' oral communication skills. World Journal of English Language.

Al Maktoum, S. B., Abri, B., & Guirguis, B. M. (2025). Repair strategies in an English as a foreign language online educational setting: A case study of higher education studies. International Journal of Learning in Higher Education.

Al-Karadsheh, O., Abutayyem, H., Saidi, A., & Shqaidef, A. (2025). Knowledge acquisition and student perceptions of three teaching methods: A randomized trial of live, flipped, and interactive flipped classrooms. BMC Medical Education.

Arvatz, A., Peretz, R., & Dori, Y. J. (2025). Self-regulated learning and reflection: A tool for teachers and students. Metacognition and Learning.

Bavela, C.-A., Pachiti, I., Vasiou, A., & Dimitropoulou, P. (2025). Secondary school's teachers emotional intelligence and conflict management with adolescents in the classroom. Psychology.

Cabutotan, V. M. E. (2025). The influence of digital learning environments on the English language skills of pre-service teachers. AIP Conference Proceedings.

Charoenpornsook, V., & Thumvichit, A. (2025). Unveiling engineering students' challenges and coping strategies in English-medium instruction: A Q methodology study. Asian-Pacific Journal of Second and Foreign Language Education.

Fang, T., Zhang, T., Wong, D. F., Jin, K., Zhang, L., Zhang, Q., Li, T., Hou, J., & Chao, L. S. (2025). LLMCL-GEC: Advancing grammatical error correction with LLM-driven curriculum learning. Expert Systems with Applications.

Gao, H.-W. (2023). Innovation and development of ideological and political education in colleges and universities in the network era. International Journal of Electrical Engineering and Education, 60(2_suppl), 489–499. https://doi.org/10.1177/00207209211013470

González Fernández, A. M., Izquierdo García, N., & González Rebollar, T. (2025). Art-training project: A teaching strategy for tutor training [Proyecto Arte-Formación: una estrategia docente para la formación de tutores]. Educacion Medica.

Gullo, G., Gentile, A., Caci, B., & Alesi, M. (2025). The role of teachers' conception of students' intelligence, self-efficacy and need frustration and satisfaction in shaping tendencies in teaching practices. Teaching and Teacher Education.

Hattie, J., & O'Leary, T. (2025). Learning styles, preferences, or strategies? An explanation for the resurgence of styles across many meta-analyses. Educational Psychology Review.

.

Hikmat, M. H., Hidayat, N., & Prasetyarini, A. (2025). Pre-service English teachers' metacognitive awareness and microteaching problems: An insight from microteaching practice in Indonesia. International Journal of Learning in Higher Education.

Huang, C., Tu, Y., Han, Z., Jiang, F., Wu, F., & Jiang, Y. (2023). Examining the relationship between peer feedback classified by deep learning and online learning burnout. Computers and Education, 207, 104910. https://doi.org/10.1016/j.compedu.2023.104910

Ingkavara, T., Panjaburee, P., Srisawasdi, N., & Sajjapanroj, S. (2022). The use of a personalized learning approach to implementing self-regulated online learning. Computers and Education: Artificial Intelligence, 3, 100086. https://doi.org/10.1016/j.caeai.2022.100086

Jaya, A., Hartono, R., Wahyuni, S., & Yulianto, H. J. (2025). From silent to supreme: The transformative power of project-based learning on language learners. Multidisciplinary Reviews.

Latifi, S., Noroozi, O., & Talaee, E. (2021). Peer feedback or peer feedforward? Enhancing students' argumentative peer learning processes and outcomes. British Journal of Educational Technology, 52(2), 768–784. https://doi.org/10.1111/bjet.13054

Latorre-Cosculluela, C., Sierra-Sánchez, V., & Vázquez-Toledo, S. (2025). Gamification, collaborative learning and transversal competences: Analysis of academic performance and students' perceptions. Smart Learning Environments.

Lee, G.-G., Latif, E., Wu, X., Liu, N., & Zhai, X. (2024). Applying large language models and chain-of-thought for automatic scoring. Computers and Education: Artificial Intelligence, 6, 100213. https://doi.org/10.1016/j.caeai.2024.100213

Li, C., Liu, C., Ju, W., Zhong, Y., & Li, Y. (2025). Prediction of teaching quality in the context of smart education: Application of multimodal data fusion and complex network topology structure. Discover Artificial Intelligence.

Li, M. (2025). Teaching, learning, and growing: The construction of a novice L2 writing teacher's personal practical knowledge. Asian-Pacific Journal of Second and Foreign Language Education.

Liu, F., Xu, L., & Huang, H. (2025). Strategies of teaching knowledge in English-medium instruction lectures: A legitimation code theory perspective. System.

Ma, X., Wang, J., & Zhang, X. (2025). Distilling vision-language pre-training models with modality-specific meta-learning. Knowledge-Based Systems.

Maghfiroh, A., Prayitno, H. J., Yusof, N., Simpol, W., Suhendar, U., Asiyah, S., & Yulianti, D. (2025). Co-teaching in EFL classroom: Lessons from collaborative teaching practice in Thailand schools. Journal of Education and Learning.

Manzano-León, A., Camacho-Lazarraga, P., Guerrero, M. A., Guerrero-Puerta, L., Aguilar-Parra, J. M., Trigueros, R., & Alias, A. (2021). Between level up and game over: A systematic literature review of gamification in education. Sustainability, 13(4), 2247. https://doi.org/10.3390/su13042247

Ng, D. T. K., Chan, E. K. C., & Lo, C. K. (2025). Opportunities, challenges and school strategies for integrating generative AI in education. Computers and Education: Artificial Intelligence.

Nguyen, T. A. (2025). Addressing English-speaking anxiety in Vietnamese initial teacher education: Beyond coping strategies. Asian-Pacific Journal of Second and Foreign Language Education.

Nuroh, E. Z., Retnaningdyah, P., & Munir, A. (2025). Digital storytelling: Pre-service English teachers' experiences, difficulties and solutions. Journal of Education and Learning.

Owen, K. (2025). Commentary on "The benefits of precision teaching for educational psychologists." Tizard Learning Disability Review.

.

Palaniappan, K., & Noor, N. M. (2022). Gamification strategy to support self-directed learning in an online learning environment. International Journal of Emerging Technologies in Learning, 17(3), 104–116. https://doi.org/10.3991/ijet.v17i03.27489

Qi, Y., & Feng, W. (2025). The effectiveness evaluation of industry education integration model for applied universities under back propagation neural network. Scientific Reports.

Saqr, M., López-Pernas, S., Jovanović, J., & Gašević, D. (2023). Intense, turbulent, or wallowing in the mire: A longitudinal study of cross-course online tactics, strategies, and trajectories. Internet and Higher Education, 57, 100902. https://doi.org/10.1016/j.iheduc.2022.100902

Selby, M. (2021). Mobile student experience: The place of tourism. Annals of Tourism Research, 90, 103253. https://doi.org/10.1016/j.annals.2021.103253

Supriyatno, T., Susilawati, S., & Hassan, A. (2020). E-learning development in improving students' critical thinking ability. Cypriot Journal of Educational Sciences, 15(5), 1099–1106. https://doi.org/10.18844/cjes.v15i5.5154

Tyas, R. A., Wilujeng, I., Rosana, D., & Jumadi. (2025). An examination of preservice science teachers pedagogical content knowledge: Development and trends. Multidisciplinary Reviews.

Wang, H. (2025). Application of artificial intelligence visual analysis technology in classroom English teaching evaluation. Discover Artificial Intelligence.

Wei, L. (2025). Research on the design and application of college English blended teaching model based on online courses. In Proceedings of the 4th Asia-Pacific Artificial Intelligence and Big Data Forum, AIBDF 2024.

Wu, L., Qiu, C.-A., & Ling, B. (2025). Collaborative emotion regulation and professional development of student language teachers in online teaching: A community of practice perspective. Teaching and Teacher Education.

Wu, M., Mohammadi, M., & Izadpanah, S. (2025). Investigating the mediating role of job commitment and job satisfaction in the relationship between social support and job motivation among English language teachers. European Journal of Education.

Yarmohammadian, M. H., Akbari, F., Zavare, A. S. N., & Rezaei, F. (2025). Community-based disaster preparedness; A training program based on needs assessment. Health in Emergencies and Disasters Quarterly.

Yoon, M., Lee, J., & Jo, I.-H. (2021). Video learning analytics: Investigating behavioral patterns and learner clusters in video-based online learning. Internet and Higher Education, 50, 100806. https://doi.org/10.1016/j.iheduc.2021.100806

Zainal, A. Z., Ng, L. L., Chew, S. Y., Green, A., & Noor Mohd Noor, F. (2025). The impact of the ProELT training program on Malaysian English teachers' self-efficacy. TESOL Journal.

Zakarneh, B. I., Aljabr, F., AlSaid, N., & Jlassi, M. (2025). Assessing pedagogical strategies integrating ChatGPT in English language teaching: A structural equation modelling-based study. World Journal of English Language.

Zapata, G. C., Saini, A. K., Tzirides, A. O., Cope, B., & Kalantzis, M. (2025). The role of AI feedback in university students' learning experiences: An exploration grounded in activity theory. Ubiquitous Learning.