

AI-GENERATED CONTEXTUAL LISTENING MATERIALS: EXPLORING TEACHER AND STUDENTS PERCEPTIONS IN EFL CLASSROOMS

Mikael Albinus Silitonga¹ Dedi Irwan² Rahayu Meliasari³

Email: mikaelalbinuss@gmail.com, dediirwanphd@gmail.com,
rahayu.meliasari@gmail.com

Faculty of Languages, Arts, and Vocational Studies, PGRI University of
Pontianak

Abstrak:

Materi menyimak bahasa Inggris di sekolah sering kali kurang relevan dengan kehidupan siswa akibat keterbatasan sumber daya. Penelitian ini bertujuan untuk mengetahui persepsi siswa dan guru terhadap materi menyimak kontekstual berbasis AI. Menggunakan metode kualitatif deskriptif, data dikumpulkan melalui wawancara dan observasi dari tiga siswa kelas IX dan seorang guru bahasa Inggris di SMP Negeri 1 Sintang, lalu dianalisis secara tematik. Hasil penelitian menunjukkan respons positif dari siswa karena mereka merasa lebih percaya diri dan mudah memahami pelajaran melalui konten lokal yang familier (seperti narasi Bukit Kelam), yang efektif menurunkan beban kognitif mereka. Siswa juga menyoroti tantangan teknis terkait inkonsistensi kejelasan audio AI. Dari perspektif guru, AI terbukti memfasilitasi kustomisasi materi lokal yang sulit ditemukan pada sumber konvensional. Namun, guru menekankan bahwa luaran AI memerlukan penyuntingan manusia dan umpan balik kolaboratif agar sesuai standar pedagogis formal. Kesimpulannya, integrasi AI dalam CTL sangat efektif mengembangkan materi relevan secara budaya dan meningkatkan motivasi belajar, asalkan diimbangi desain instruksional guru.

Kata kunci: Kecerdasan Buatan, Persepsi, Pengajaran dan Pembelajaran Kontekstual (CTL), Mendengarkan,

Abstract:

English listening materials in schools frequently lack relevance to students' lives due to resource limitations. This study aims to explore students' and teacher's perceptions of AI-generated contextual listening materials. Employing a descriptive qualitative design, data were collected through

interviews and observations from three ninth-grade students and one English teacher at State Junior High School 1 Sintang, and subsequently analyzed thematically. The findings revealed positive responses from students, as they felt more confident and comprehended the lessons more easily through familiar local content (such as the narrative of Bukit Kelam), effectively reducing their cognitive load. Students also highlighted technical challenges regarding the inconsistent clarity of the AI-generated audio. From the teacher's perspective, AI proved to facilitate the customization of localized materials that are typically difficult to find in conventional resources. However, the teacher emphasized that AI outputs require human editing and collaborative feedback to align with formal pedagogical standards. In conclusion, integrating AI into the Contextual Teaching and Learning (CTL) approach is highly effective for developing culturally relevant materials and enhancing students' learning motivation, provided it is balanced with appropriate instructional design by the teacher.

Keywords: Artificial Intelligence, Perception, Contextual Teaching and Learning (CTL), Listening,

Introduction

The mastery of listening skills is fundamental in English as a Foreign Language (EFL) learning, as this ability is widely recognized as a primary key for determining students' success in the language acquisition process and real-life communication (Gilakjani & Sabouri, 2016). However, at State Junior High School 1 Sintang, students experience significant difficulties in mastering these listening skills.

In the specific context of Sintang District, previous studies indicate that students frequently have difficulty understanding abstract learning materials, which underlines the importance for teachers to improve their technological competencies in designing more effective and accessible learning media (Irwan, 2020). This challenge is heavily influenced by a lack of relevant background knowledge regarding the topics discussed in conventional listening materials that are mainly based on unfamiliar foreign cultural settings, which becomes a critical factor hindering their ability to process oral input. When students fail to connect with the background context of the audio materials, they tend to experience significant difficulties in listening classes (Wahab & Tanasy, 2022), highlighting the urgent need for pedagogical strategies that are more relatable to the students' realities.

One established pedagogical approach to bridge this gap is Contextual Teaching and Learning (CTL). Johnson (2002) defines CTL as an instructional approach that connects academic material with students' real-life contexts to make learning more meaningful. In this study, "contextual" specifically refers to learning materials created based on the local environment and students' daily

lives in Sintang. This includes integrating local narratives and legends, as well as geographical locations or landmarks already known to students. By ensuring the listening audio features specific local stories, locations, and people that students already know, CTL directly addresses the disconnect students feel with conventional learning materials

In the effort to design relevant and dynamic CTL materials, Generative Artificial Intelligence (GenAI) offers an innovative solution. GenAI refers to a branch of AI technology that creates new content including text, audio, images, and code based on commands and learned data patterns. Gozalo-Brizuela and Garrido-Merchán (2023) define it as an algorithmic system capable of generating synthetic content artifacts that maintain high semantic similarity to training data while remaining original. In the educational context, this technology functions as a collaborative partner capable of adaptively designing learning materials (Kohnke et al., 2023). This study utilizes a dual GenAI approach: ChatGPT acts as a text generator to construct natural narratives about Sintang's local culture or places, and Google AI Studio functions as a Text-to-Speech (TTS) engine to transform this text into audio with native-like intonation. This overcomes the classic obstacle of providing accurate and varied audio models while supporting CTL through the creation of localized content, such as incorporating elements of local wisdom and legends.

The successful implementation of AI-generated contextual listening materials is strongly influenced by user perception. Qiong (2017) defines perception as a cognitive process in which individuals identify, structure, and make sense of sensory input in order to develop a meaningful understanding of their surroundings. From a teacher's perspective, perceptions of AI play a crucial role in shaping instructional decisions; teachers are more likely to value AI when it helps bridge the gap between conventional materials and students' real-life contexts, particularly when the tools are easy to use (Kessler, 2018). From the students' perspective, positive perceptions are closely associated with reduced listening anxiety. Polat and Erişti (2019) found that contextually relevant and familiar materials can minimize feelings of unfamiliarity and tension, thereby creating a more comfortable learning environment that supports better comprehension of spoken English.

According to Abdellatif et al. (2024), AI-based assessment significantly improved students' listening skills in the experimental group. Similarly, Xiao (2025) demonstrated that the use of AI-driven speech recognition had an impact on increasing focus and reducing anxiety among EFL students. At the higher education level, Zhou et al. (2025) integrated AI

Chatbots into Informal Digital English Learning (IDLE) and found similar positive results. However, among these various studies, there is a rarely explored gap: most studies focus on quantitative results, while user perception specifically regarding local materials remains underexplored. To ensure the materials pedagogically sound and highly relevant to the students' needs, the development of the AI-generated contextual listening materials involved a collaborative process. The researcher worked closely with an English teacher at State Junior High School 1 Sintang to design, contextualize, and validate the audio content prior to its implementation in the classroom. Based on this gap, the research purpose of this study is to explore teacher's and students' perceptions regarding the use of AI-generated contextual listening materials at State Junior High School 1 Sintang. To achieve this purpose, the study is guided by the following research question: How do the teacher and students perceive the use of AI-generated contextual materials in teaching listening?

This study provides both theoretical and practical contributions to the field of English language teaching (ELT). Theoretically, it enriches the existing literature on CTL by offering qualitative insights into how Generative AI can be integrated to develop localized educational resources, especially for listening skills. Practically, the findings provide EFL teachers a feasible and cost-effective pedagogical strategy for utilizing AI tools to create culturally relevant listening materials that increase student engagement and reduce listening anxiety

Methodology

A qualitative approach was used in this study. According to Creswell and Creswell (2023), qualitative approach is a strategy used to investigate and interpret meaning as constructed by individuals or collectives in relation to social or human phenomena. Complementing this approach, qualitative methods include specific procedures for collecting and analyzing non-numerical data. Qualitative methods involve flexible, emerging research designs, naturalistic data collection through direct participant interaction, and an inductive process of data analysis focused on rich, descriptive outcomes (Creswell & Creswell, 2023; Merriam & Tisdell, 2016). Therefore, a qualitative descriptive design was employed to gain a rich, in-depth understanding of the contextual nuances surrounding the phenomenon under investigation. This study used a qualitative descriptive design to investigate the perceptions of an English teacher and students regarding contextual listening materials generated through AI. This research was conducted at State Junior High School 1 Sintang, specifically focusing on three students (one male, two females) from class 9G.

Participants were selected using a purposive sampling technique to represent three distinct levels of academic competence: high, medium, and low achievers. This classification was determined based on the data from the teacher's journal entries and the students' accumulated English grades. Data were collected through semi-structured interviews and classroom observations, supported by an interview guide and field notes to capture in-depth perspectives, environmental settings, and non-verbal cues (Phillippi & Lauderdale, 2018). To ensure trustworthiness (Korstjens & Moser, 2018), the researcher established credibility by using observations to cross-verify interview findings through data triangulation (Creswell & Creswell, 2023), and maintained dependability via a rigorous audit trail of raw data and design notes. Finally, the gathered data were analyzed using thematic analysis following the six-phase framework proposed by Braun and Clarke (2006). The analytical process commenced with data familiarization through transcription and repeated reading of the dataset. Subsequently, the researcher generated initial codes from relevant segments, which were then categorized to establish meaningful themes. These themes were rigorously reviewed for coherence, clearly defined, and named to capture their essence. Finally, the synthesized findings were structured into a systematic report.

Findings and Discussion

The findings of this study, obtained through thematic analysis (Braun & Clarke, 2006) of semi-structured interviews and classroom observations, reveal diverse perceptions among the English teacher and students regarding the integration of AI-generated contextual listening materials. These findings address the research gap identified in the introduction. While previous studies have predominantly examined the effectiveness of AI in English language learning through quantitative approaches, particularly focusing on improvements in listening achievement, anxiety reduction, and learning engagement, limited attention has been paid to teachers' and students' perceptions of AI-generated listening materials that incorporate learners' local contexts. By exploring participants' experiences with listening materials developed from local stories, places, and cultural elements of Sintang, this study provides qualitative insights into how contextualized AI-generated materials are perceived and implemented in an EFL classroom. Three major themes emerged from the interview data, reflecting students' perceptions of AI-generated contextual listening materials:

Findings

Enhanced Students Comprehension and Confidence through Cultural Relevance

Data analysis reveals that students experienced significant affective and cognitive benefits when using AI-generated contextual listening materials. Emotionally, students felt more comfortable and confident compared to using standard audio materials that lack local context. Observational field notes showed increased focus, enthusiasm, and active engagement, with typically passive students participating more in discussions. Some students were observed smiling and whispering to their peers when hearing familiar local content like “Bukit Kelam,” indicating a strong emotional connection. Cognitively, this cultural relevance directly enhanced their comprehension. Students reported that the materials explicitly helped them relate listening activities to their real-life environment. Student 1 (S1) explained that listening to familiar local legends greatly supported their understanding, while Student 2 (S2) stated the familiar setting made it easier to remember new vocabulary. Furthermore, Student 3 (S3) mentioned that this familiarity helped them catch pronunciation and grammatical patterns more clearly, ultimately giving a noticeable boost to their English self-confidence.

Technical Challenges and Students' Pedagogical Expectations

A more significant finding was found that although AI-generated contextual listening materials provide meaningful learning experiences, there are still technical challenges and pedagogical expectations that need to be addressed to optimize their effectiveness. This finding is supported by students' responses in the interview data, which reveal that although students generally showed positive attitudes toward the materials, they also identified several areas for improvement, as illustrated by S2, who pointed out that the AI-generated audio sometimes had inconsistent pacing and lacked clarity, making the listening process more difficult. In addition, S2 emphasized the importance of having a variety of lesson topics, expressing a preference for learning materials that include both local and international contexts rather than focusing entirely on local content. Furthermore, S3 suggested that the learning experience could be enhanced by integrating interactive activities, such as roleplays or theatrical performances, to make the lessons more engaging and participatory. Analysis of the interview data revealed three dimensions of the teacher's perceptions:

Personalized and Contextualized AI-Generated Materials

The results of the data analysis indicate that AI enables teachers to customize learning materials more flexibly and align them closely with students' contextual needs. The teacher's interview data provide further support

for this finding, as the educator explained that AI allows for the adjustment of the content of listening materials based on specific learning objectives, student proficiency levels, and local cultural contexts. Teacher noted that by carefully designing prompts, it allows the teacher to generate materials that reflect students' daily experiences, such as local stories or familiar environments, which were previously difficult to find in conventional resources. In addition, the teacher highlighted that AI provides greater control over the content, including adjusting vocabulary difficulty, topic relevance, and language style to better suit students' abilities. The teacher observed that AI-supported materials help provide localized and familiar contexts that are often unavailable in conventional educational resources. In addition, the teacher reported that AI allowed her to generate specific regional narratives, such as the legend of Dara Muning, which were rarely found on mainstream platforms. Furthermore, the teacher noted that this capability made it easier to connect learning materials with students' existing background knowledge, as students were already familiar with the context presented in the listening audio.

The Importance of Teacher Editing and Collaborative Feedback

The analysis of the data reveals that despite the advantages of AI in generating learning materials, careful teacher supervision remains essential to ensure the appropriateness and quality of the content. The interview data provide further support for this finding, as the teacher emphasized in the interview that AI-generated materials should not be used directly in the classroom without prior review and editing. Furthermore, the teacher explained that human intervention is necessary to adjust vocabulary difficulty and ensure that the overall language level aligns with students' proficiency. In addition, the instructor pointed out the importance of filtering out informal or inappropriate expressions generated by AI, such as casual phrases like "Hello guys," which may not be suitable for formal educational settings. According to the interview, the teacher explained that developing materials collaboratively with a university student was found to help maintain instructional quality. The teacher admitted that when lessons were prepared independently, opportunities for review or proofreading were often limited. However, through collaboration, they were able to establish an effective feedback loop that allowed them to revise, validate, and refine the pedagogical content. The teacher emphasized that this shared process increased confidence in the final output, ensuring that the listening materials were accurate, well-polished, and aligned with students' needs.

Efficiency and Benefits of AI in Material Development

The teacher observed that the use of AI significantly improves efficiency in developing listening materials by making the process faster and easier. She emphasized that AI helps reduce the time required for material preparation, allowing her to manage her workload more effectively alongside other teaching responsibilities. In addition, the teacher reported that AI enables the creation of a wider variety of materials in a shorter time, which was difficult to achieve when relying on conventional sources.

Discussion

The observable behaviors suggest that familiarity with contextual content can reduce anxiety and enhance students' confidence and engagement, indicating that emotionally relevant materials contribute to a more supportive learning atmosphere (Dewaele & MacIntyre, 2016; Jiang & Dewaele, 2019; Resnik & Dewaele, 2021). When students experience enjoyable and meaningful learning, they are more likely to feel confident and actively involved in the learning process (Dewaele & Alfawzan, 2018; Lee, 2020). This aligns with findings from Nguyen and Boers (2019) and Widodo (2018), who asserted that familiarity with cultural context enables learners to concentrate more on linguistic features rather than expending cognitive effort on interpreting unfamiliar content. Therefore, when learning materials are culturally relevant and meaningful to students' lives, they can reduce cognitive load and support deeper language processing, leading to improved overall comprehension (Kalyuga, 2009; Mahmoudi, 2018; Roussel et al., 2017).

Despite these positive impacts on learner confidence and comprehension, the responses also indicate that while AI-based materials are beneficial, their effectiveness depends heavily on both technical quality and pedagogical design. This suggests that improvements in audio delivery and instructional strategies are essential for maximizing learning outcomes (Oktalia & Drajati, 2018; Tran, 2024). Moreover, the results point to the importance of balancing technological innovation with sound pedagogical practices. In this regard, teachers play a crucial role in adapting, refining, and contextualizing AI-generated materials to better align with students' learning needs and expectations (Kohnke et al., 2023; Ulla, 2023).

Shifting to the teachers' perceptions, the interview data analysis revealed several key dimensions regarding the integration of these tools. First, the data indicates that AI not only facilitates material creation but also enhances the relevance and suitability of instructional content for learners. The results suggest that AI supports more personalized and context-sensitive teaching practices, allowing teachers to design materials that are both meaningful and

pedagogically appropriate. This is consistent with previous research showing that AI tools enable adaptive content creation and support differentiated instruction by tailoring materials to learners' needs (Holmes et al., 2019; Kohnke et al., 2023). By utilizing AI as a tool for providing localized materials, teachers observed that students were able to understand information and ideas more easily, reflecting that AI-generated local materials support comprehension through contextual familiarity. When students are familiar with the context, they can focus more on understanding the content without being hindered by unfamiliar situations, which further supports meaning-making in language learning (Kohnke et al., 2023; Nguyen & Boers, 2019; Tomlinson, 2012; Widodo, 2018).

However, alongside the generative capabilities of AI, the findings highlight the absolute necessity of teacher editing. The responses emphasize that while AI can assist in material creation, teachers play a critical role in refining and validating the output to meet pedagogical standards. This aligns with previous studies noting the limitations of GenAI in educational contexts, where human supervision is essential to ensure the appropriateness and quality of AI-generated materials (Kasneci et al., 2023; Kohnke et al., 2023; Tlili et al., 2023). To maintain this standard, collaborative feedback serves as a key mechanism for quality improvement. Establishing a feedback loop to revise, validate, and refine pedagogical content is considered essential in collaborative instructional design processes (Voogt et al., 2015). These insights highlight that collaboration not only enhances material quality but also supports reflective teaching practices, as teachers benefit from shared perspectives and continuous feedback (Trust et al., 2016). Such collaborative practices among educators ultimately contribute to more effective material development and better alignment with learners' needs (Farrell, 2020; Kokotsaki et al., 2016).

Finally, the integration of AI offers significant efficiency and benefits in material development. The findings demonstrate that this increased efficiency allows teachers to focus more on instructional planning rather than spending excessive time searching for or creating materials from scratch. As a result, AI serves as a practical tool that supports teachers' productivity and flexibility in material development. This is supported by previous studies suggesting that AI technologies can streamline instructional design processes and reduce teachers' workload by automating time-consuming tasks (Holmes et al., 2019; Luckin et al., 2016). Furthermore, the use of digital tools, including AI, has been shown to enhance efficiency and practicality in educational practices, enabling teachers to allocate more time and energy to core

pedagogical activities (Cai, 2024; Hossain, 2024; Koehler & Mishra, 2009; Mishra & Koehler, 2006).

Conclusion

In conclusion, this study reveals that the integration of AI-generated contextual materials significantly enhances the English listening experience for both students and teacher at State Junior High School 1 Sintang. From the students' perspective, incorporating familiar local narratives, such as the legend of Bukit Kelam, successfully reduces listening anxiety and cognitive load, thereby boosting their learning confidence and comprehension. However, the presence of technical limitations regarding AI audio pacing and clarity indicates that the technology still requires refinement. From the teacher's perspective, GenAI tools like ChatGPT and Google AI Studio offer unprecedented flexibility in customizing culturally relevant content that is typically absent from commercial textbooks. Despite these significant advantages, the findings strongly underscore that AI cannot replace human pedagogical judgment. Teacher supervision, careful editing, and collaborative feedback remain absolutely essential to ensure that the AI-generated outputs align with formal educational standards and students' proficiency levels. Ultimately, blending Artificial Intelligence with CTL provides a highly effective strategy to make English listening classes more engaging, meaningful, and locally relevant, provided that educators maintain an active role as critical curators of the digital content.

Reference

- Abdellatif, M. S., Alshehri, M. A., Alshehri, H. A., Hafez, W. E., Gafar, M. G., & Lamouchi, A. (2024). I am all ears: listening exams with AI and its traces on foreign language learners' mindsets, self-competence, resilience and self-reflection. *Language Testing in Asia*, 14(1). <https://doi.org/10.1186/s40468-024-00329-6>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Cai, J. (2024). Analysis of the Impact of AI on Modern Education: Inside and Outside the Classroom. *Journal of Computer Science and Technology Studies*, 6(4), 25-31. <https://doi.org/10.32996/jcsts.2024.6.4.4>
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.

- Dewaele, J.-M., & Alfawzan, M. (2018). Does the effect of enjoyment outweigh that of anxiety in foreign language performance? *Studies in Second Language Learning and Teaching*, 8(1), 21–45. <https://doi.org/10.14746/ssllt.2018.8.1.2>
- Dewaele, J.-M., & MacIntyre, P. D. (2016). Foreign language enjoyment and foreign language classroom anxiety: The right and left feet of the language learner. In P. D. MacIntyre, T. Gregersen, & S. Mercer (Eds.), *Positive psychology in SLA* (pp. 215–236). Multilingual Matters.
- Dornburg A, Davin KJ. ChatGPT in foreign language lesson plan creation: Trends, variability, and historical biases. *ReCALL*. 2025;37(3):332-347. <https://doi:10.1017/S0958344024000272>
- Farrell, T. S. C. (2020). *Reflective practice in ELT*. Equinox Publishing.
- Gilakjani, A. P., & Sabouri, N. B. (2016). Learners' listening comprehension difficulties in English language learning: A literature review. *English Language Teaching*, 9(6), 123–133. <https://doi.org/10.5539/elt.v9n6p123>
- Gozalo-Brizuela, R., & Garrido-Merchán, E. C. (2023). ChatGPT is not all you need: A state of the art review of large generative AI models. *arXiv preprint arXiv:2301.04655*. <https://doi.org/10.48550/arXiv.2301.04655>
- Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign.
- Hossain, R. (2024). Prospective artificial intelligence (AI) applications in the university education level: Enhancing learning, teaching and administration through a PRISMA base review systematic review. *Pakistan Journal of Life and Social Sciences (PJLSS)*, 22(2). <https://doi.org/10.57239/pjlss-2024-22.2.00694>
- Irwan, D. (2020). Online learning implementation and challenges; Case in rural and urban schools in Sintang District. *Jurnal Pendidikan Bahasa*, 9(2), 310-320. <https://doi.org/10.31571/bahasa.v9i2.2931>
- Jiang, Y., & Dewaele, J.-M. (2019). How unique is the foreign language classroom enjoyment and anxiety of Chinese EFL learners? *System*, 82, 13–25. <https://doi.org/10.1016/j.system.2019.02.017>
- Johnson, E. B. (2002). *Contextual teaching and learning: What it is and why it's here to stay*. Corwin Press.

- Kalyuga, S. (2009). Knowledge elaboration: A cognitive load perspective. *Learning and Instruction*, 19(5), 402–410. <https://doi.org/10.1016/j.learninstruc.2009.02.003>
- Kasneci, E., Sessler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., & Kasneci, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences*, 103, 102274. <https://doi.org/10.1016/j.lindif.2023.102274>
- Kessler, G. (2018). Technology and the future of language teaching. *Foreign Language Annals*, 51(1), 205–218. <https://doi.org/10.1111/flan.12318>
- Kohnke, L., Moorhouse, B. L., & Zou, D. (2023). ChatGPT for Language Teaching and Learning. *RELC Journal*, 54(2), 537–550. <https://doi.org/10.1177/00336882231162868>
- Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge (TPACK)?. *Contemporary Issues in Technology and Teacher Education*, 9(1), 60–70.
- Kokotsaki, D., Menzies, V., & Wiggins, A. (2016). Project-based learning: A review of the literature. *Improving Schools*, 19(3), 267–277. <https://doi.org/10.1177/1365480216659733>
- Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice*, 24(1), 120–124. <https://doi.org/10.1080/13814788.2017.1375092>
- Lee, J. S. (2020). The role of grit and classroom enjoyment in EFL learners' willingness to communicate. *Journal of Multilingual and Multicultural Development*, 43(1), 1–15. <https://doi.org/10.1080/01434632.2019.1655358>
- Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). *Intelligence unleashed: An argument for AI in education*. Pearson.
- Mahmoudi, S. (2018). The effect of cultural materials on listening comprehension among Iranian upper-intermediate EFL learners: In reference to gender. *Cogent Education*, 5(1), 1560601. <https://doi.org/10.1080/2331186X.2018.1560601>
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College*

- Record*, 108(6), 1017–1054. <https://doi.org/10.1111/j.1467-9620.2006.00684.x>
- Nguyen, H. T., & Boers, F. (2019). The effect of content familiarity on listening comprehension. *System*, 81, 96–108. <https://doi.org/10.1016/j.system.2019.02.001>
- Oktalia, D., & Drajadi, N. A. (2018). English teachers' perceptions of text to speech software and Google Site in an EFL classroom: What English teachers really think and know. *International Journal of Education and Development using Information and Communication Technology*, 14(3), 183–192.
- Phillippi, J. C., & Lauderdale, J. (2018). A guide to field notes for qualitative research: Context and conversation. *Qualitative Health Research*, 28(3), 381–388. <https://doi.org/10.1177/1049732317697102>
- Polat, M., & Erişti, B. (2019). The effects of authentic video materials on foreign language listening skill development and listening anxiety at different levels of English proficiency. *International Journal of Contemporary Educational Research*, 6(1), 135–154. <https://doi.org/10.33200/ijcer.567863>
- Qiong, O. U. (2017). A brief introduction to perception. *Studies in Literature and Language*, 15(4), 18–28. <https://doi.org/10.3968/10055>
- Resnik, P., & Dewaele, J.-M. (2021). Learner emotions, autonomy and trait emotional intelligence in in-person versus emergency remote English foreign language teaching in Europe. *Applied Linguistics Review*, 14(3), 473–501. <https://doi.org/10.1515/applirev-2020-0096>
- Roussel, S., Joulia, D., Tricot, A., & Sweller, J. (2017). Learning subject content through a foreign language should not ignore human cognitive architecture: A cognitive load theory approach. *Learning and Instruction*, 52, 69–79. <https://doi.org/10.1016/j.learninstruc.2017.04.007>
- Tlili, A., Shehata, B., Adarkwah, M. A., Bozkurt, A., Hickey, D. T., Huang, R., & Agyemang, B. (2023). What if the devil is my guardian angel: ChatGPT as a case study of using chatbots in education. *Smart Learning Environments*, 10(1), 15. <https://doi.org/10.1186/s40561-023-00237-x>
- Tomlinson, B. (2012). Materials Development for Language Learning and Teaching. *Language Teaching*, 45, 143–179. <https://doi.org/10.1017/S0261444811000528>

- Tran, M. (2024). University EFL students' perceptions of AI-powered text-to-speech technology in language learning. *TNU Journal of Science and Technology*, 231(03), 77–85. <https://doi.org/10.34238/tnu-jst.13753>
- Trust, T., Krutka, D. G., & Carpenter, J. P. (2016). “Together we are better”: Professional learning networks for teachers. *Computers & Education*, 102, 15–34. <https://doi.org/10.1016/j.compedu.2016.06.007>
- Ulla, M. B. (2023). ChatGPT in language education: How to use it ethically? *PASAA*, 67(1), 361–377. <https://doi.org/10.58837/chula.pasaa.67.1.12>
- Voogt, J., Laferrière, T., Breuleux, A., Itow, R. C., Hickey, D. T., & McKenney, S. (2015). Collaborative design as a form of professional development. *Instructional Science*, 43(2), 259–282. <https://doi.org/10.1007/s11251-014-9340-7>
- Wahab, I., & Tanasy, N. (2022). The interferences faced by the EFL students in listening comprehension. *Seltics Journal: Scope of English Language Teaching, Literature and Linguistics*, 5(1), 16–26. <https://doi.org/10.46918/seltics.v5i1.1316>
- Widodo, H. P. (2018). A critical micro-semiotic analysis of values depicted in Indonesian EFL textbooks: What should be improved? *Language Teaching Research*, 22(3), 1–21. <https://doi.org/10.1177/1362168817694216>
- Xiao, Y. (2025). The impact of AI-driven speech recognition on EFL listening comprehension, flow experience, and anxiety: a randomized controlled trial. *Humanities and Social Sciences Communications*, 12(1). <https://doi.org/10.1057/s41599-025-04672-8>
- Zhou, Q., Hashim, H., & Sulaiman, N. A. (2025). Integrating AI chatbots in informal digital English learning: impacts on listening competencies in Chinese higher education. *Education and Information Technologies*, 30(18), 27031–27059. <https://doi.org/10.1007/s10639-025-13811-2>