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Beyond Traditional Listening Instruction: A Mixed-Methods Study on the Impact of VOA Learning English on EFL Learners' Motivation and Listening Proficiency

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A B S T R A C T

Grounded in Self-Determination Theory (SDT), which identifies autonomy, competence, and relatedness as core drivers of intrinsic motivation, this study examines the effectiveness of VOA Learning English in enhancing EFL learners' listening comprehension and motivation. A sequential explanatory mixed-methods design was employed, combining a quasi-experimental pre-test and post-test control group design with semi-structured interviews. Seventy tenth-grade students from a public senior high school in Anambas Regency, Indonesia, were assigned to either an experimental group using VOA Learning English or a control group receiving conventional instruction; six students were purposefully selected for the qualitative phase. Results showed that the experimental group achieved a significantly greater improvement in listening comprehension (pre-test M = 44.00; post-test M = 76.00) than the control group, supported by statistically significant between-group differences (t = -3.077, p = .003). Motivation scores were also uniformly high (M = 4.28), spanning intrinsic, extrinsic, integrative, and instrumental dimensions. Qualitatively, students across all proficiency levels reported positive learning experiences, citing the transcript and replay features as particularly effective scaffolding tools. These findings indicate that VOA Learning English is a pedagogically sound and inclusive instructional tool, with implications for the broader integration of mobile-assisted platforms into EFL curricula.

Keywords: *EFL Listening Comprehension, Mobile-Assisted Language Learning, Self-Determination Theory, VOA Learning English, Learner Motivation*

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INTRODUCTION

In an increasingly interconnected world, English proficiency is essential for academic, professional, and social engagement. As the global lingua franca, English requires effective and well-designed instruction, especially in English as a Foreign Language (EFL) context, where learners depend heavily on classroom input due to limited access to authentic language use (Mubarok & Sofiana, 2022). Consequently, instructional quality plays a critical role in language development, necessitating attention to both the cognitive and affective dimensions of learning (Bashirli, 2024).

Listening is a foundational skill in language acquisition and serves as the primary channel through which learners internalize phonological, lexical, and grammatical patterns (Arbain, 2025). As an active process that involves both decoding and meaning construction, listening is indispensable to effective everyday communication (Kusumoriny & Aziz, 2025). Nevertheless, it remains one of the most challenging skills for EFL learners to master, with common difficulties arising from rapid speech, unfamiliar accents, and limited vocabulary (Wiwoho, 2022). Compounding this, many classrooms continue to rely on textbook-based materials that

lack authenticity, thereby restricting learners' exposure to real-world language and limiting the development of effective listening strategies (Nurjanah & Panjaitan, 2024).

Beyond cognitive challenges, motivation plays an equally significant role in listening development, directly shaping learners' engagement, persistence, and overall performance (Hocaoğlu & Ocak, 2024). When students perceive listening tasks as difficult or monotonous, their willingness to participate declines, resulting in passive and disengaged learning (Nisa & Muid, 2024). Effective listening instruction must therefore address both cognitive and motivational dimensions simultaneously.

Advances in digital technology have opened new possibilities for language learning. Mobile-Assisted Language Learning (MALL) enables flexible, accessible, and learner-centered experiences by giving students access to authentic materials, control over their learning pace, and opportunities to practice beyond the classroom (Kukulska-Hulme, 2020). These affordances align with contemporary educational principles that emphasize learner autonomy and personalized instruction, establishing MALL as a promising approach for improving both proficiency and motivation (Chakir & Lamjahdi, 2024).

Self-Determination Theory (SDT) offers a valuable framework for understanding the effectiveness of such approaches. It identifies autonomy, competence, and relatedness as the primary drivers of intrinsic motivation (Ryan & Deci, 2000). Mobile learning applications, through their interactive and user-controlled features, are well-positioned to support these psychological needs, thereby promoting sustained engagement and stronger learning outcomes (Alisoy & Sadiqzade, 2024).

VOA Learning English represents a practical embodiment of these principles, offering authentic yet accessible materials that include simplified vocabulary, reduced speech rate, and multimodal support through audio, text, and images (Hương & Bui, 2024). These features deliver comprehensible input while sustaining exposure to authentic language use. The platform further supports learner autonomy by allowing users to select content and self-regulate their learning (Nababan et al., 2024).

Prior research has established that digital learning tools can enhance listening comprehension through increased exposure to authentic input and repeated practice (Fachriza, 2024; Inayah & Rahayu, 2022; Nirwana et al., 2025). Such tools have also been shown to improve motivation by making learning more engaging and flexible. However, most existing studies examine cognitive and motivational outcomes in isolation and rely predominantly on quantitative methods, which limits a comprehensive understanding of learners' experiences (Nababan et al., 2024). To address these gaps, this study investigates the effectiveness of VOA Learning English in enhancing EFL learners' listening comprehension and motivation through a mixed-methods approach. By integrating quantitative and qualitative data, the study seeks to generate both empirical evidence and nuanced insights into students' learning experiences.

METHOD

Research Design

This study employed a sequential explanatory mixed methods design to examine the effects of the VOA Learning English application on students' listening comprehension and motivation. In this approach, quantitative data were collected and analysed first, followed by qualitative data to explain and deepen the initial findings. The quantitative phase utilized a quasi-experimental pre-test and post-test control group design, enabling comparison between an experimental group receiving mobile-assisted instruction and a control group taught through conventional methods. This design was appropriate given the use of intact classes, which preserved the natural classroom setting while maintaining acceptable internal validity. The qualitative phase adopted a phenomenological approach through semi-structured interviews to explore students lived learning experiences, aiming to uncover the cognitive and motivational factors underlying the quantitative results. By integrating both datasets, the

study achieved methodological triangulation, strengthening the validity and depth of interpretation.

Participants

The study was conducted at a public senior high school in Anambas Regency, Indonesia, involving tenth-grade students enrolled in the Mathematics and Natural Science programme. The population comprised approximately 105 students across three classes. Through cluster sampling, two intact classes were randomly selected, yielding a total sample of 70 participants. One class was designated as the experimental group and used the VOA Learning English application, while the other served as the control group and received conventional instruction. This approach ensured both representativeness and practical feasibility. For the qualitative phase, six students from the experimental group were purposefully selected based on their motivation levels, representing high, moderate, and low categories. This selection ensured a range of perspectives, thereby contributing to a more comprehensive understanding of students' experiences with the programme.

Research Instruments

Data were collected using three instruments: a listening comprehension test, a motivation questionnaire, and semi-structured interviews. The listening test, administered as both a pre-test and post-test, comprised 20 multiple-choice items assessing students' ability to identify main ideas, specific details, sequences, and implied meanings. The test was aligned with CEFR levels A2–B1. The motivation questionnaire used a five-point Likert scale grounded in Self-Determination Theory, covering intrinsic motivation, extrinsic motivation, integrative orientation, and instrumental orientation. Both instruments were pilot-tested, confirming acceptable reliability (Cronbach's alpha above the required threshold) and confirmed construct validity through exploratory factor analysis. To complement the quantitative data, semi-structured interviews were conducted with six students. The interviews included ten open-ended questions designed to explore students' learning experiences, perceptions, and motivation changes in greater depth.

Data Analysis

Data analysis integrated quantitative and qualitative techniques within a mixed-methods framework. Quantitative data from the tests and questionnaires were examined using both descriptive and inferential statistics. Means and standard deviations summarized performance outcomes, while paired-sample t-tests assessed within-group improvements in listening comprehension. All analyses were conducted using JASP to ensure accuracy and transparency. Qualitative data from the interviews were analysed thematically through an iterative process of coding, categorizing, and pattern identification, involving data condensation, display, and conclusion drawing to generate meaningful themes from students' responses. Finally, triangulation was applied by integrating the qualitative and quantitative findings, enhancing the credibility of the results and providing a more comprehensive understanding of both the learning outcomes and the processes that underlie them.

FINDINGS AND DISCUSSION

This section presents and discusses the findings in relation to the study objectives, examining: (a) the effect of the VOA Learning English application on students' learning motivation, (b) its effect on listening comprehension, and (c) students' perceptions of how the application supported their motivation and listening development.

The Effect of VOA Learning English on Students' Learning Motivation

Questionnaire analysis revealed that students demonstrated a highly positive level of motivation when engaging with the VOA Learning English application, as reflected in an overall mean score of 4.28, which falls within the "very high" category. This result attests to

the application's effectiveness in fostering affective engagement and sustaining learning interest. These findings align with Kukulska-Hulme (2020) work highlighting the motivational benefits of MALL, which demonstrates that digital platforms offering authentic materials and flexible access can significantly enhance learners' engagement and persistence. Moreover, Ranoco (2025) research grounded in Self-Determination Theory suggests that learning environments supporting autonomy, competence, and interactive engagement can strengthen intrinsic motivation and promote sustained learning behaviours. The high level of motivation observed in this study can therefore be attributed to the pedagogical and technological affordances of the VOA Learning English application, consistent with established principles of motivational theory and technology-enhanced learning. A closer examination of intrinsic motivation revealed that students experienced genuine enjoyment, interest, and satisfaction when using the application. The majority of students agreed that the activities were engaging and enjoyable, indicating that the application successfully fostered a positive learning environment. This indicates that learners were not merely completing assigned tasks but were meaningfully engaging with the listening materials.

With respect to extrinsic motivation, students strongly agreed that the application supported better academic performance, with the highest mean score (4.43) associated with the desire to achieve good grades. This indicates that academic goals remained a significant motivator, and that the application aligns effectively with institutional expectations and assessment-oriented learning environments. These findings are consistent with Mula et al. (2024) research, which suggests that extrinsic factors such as grades, teacher expectations, and academic requirements continue to play a crucial role in shaping learner behaviour in formal EFL contexts. Furthermore, Wijayanti et al. (2024) research on technology-enhanced language learning indicates that digital tools can effectively support extrinsic motivation by providing structured tasks, clear performance outcomes, and immediate feedback. The strong extrinsic motivation observed in this study suggests that the VOA Learning English application not only facilitates language learning but also aligns with students' academic priorities and performance-driven goals (Qiu, 2025).

The findings also highlight a strong integrative orientation, as students expressed a clear desire to understand English speakers, their culture, and global communication contexts. This suggests that exposure to the application's authentic materials contributed to broadening students' perspectives beyond the classroom. These results align with prior research emphasizing that authentic language input fosters integrative motivation by enabling learners to connect language learning with real-world communication and cultural understanding (Bhestari & Luthfiyyah, 2021; Phung et al., 2023). Research on digital learning environments further indicates that access to authentic multimedia content can enhance intercultural awareness and promote a sense of connection to the global community, thereby strengthening motivation to engage with the target language (Almajali, 2022; Shamsi & Bozorgian, 2024). The strong integrative orientation observed in this study can thus be attributed to the meaningful, context-rich input provided by VOA Learning English, which extends learning well beyond purely academic purposes (Sütçü & Durmuş, 2026). Instrumental motivation similarly emerged as a dominant factor, with students expressing strong conviction that listening skills would support their future education and careers. This indicates that learners perceived the application as both academically valuable and relevant to their long-term aspirations (Alda, 2023).

The overall distribution of responses further supports these findings, as the majority of students selected "Agree" or "Strongly Agree" for all questionnaire items, with no negative responses recorded. This uniformly positive pattern reflects a consistent perception of the application as both engaging and educationally beneficial. The findings thus confirm that VOA Learning English significantly enhances students' motivation across multiple dimensions, consistent with Alhamami (2022) and Perlman (2026) research demonstrating that learners tend to respond positively to MALL environments that offer flexibility, interactivity, and authentic materials, all of which contribute to increased engagement and favorable

learning attitudes. Moreover, Alzaanin (2023) and Kamaruddin et al. (2025) studies grounded in motivational theory suggest that positive learner perceptions are closely associated with sustained motivation and deeper engagement, particularly when learning tools successfully address both cognitive and affective needs. The uniformly positive response pattern observed in this study reinforces the argument that well-designed digital learning applications can effectively support and enhance students' overall motivation in language-learning contexts (Yaqoob et al., 2025).

The Effect of VOA Learning English on Students' Listening Comprehension

The quantitative findings indicate a substantial improvement in students' listening comprehension following the implementation of VOA Learning English. The experimental group's mean scores increased from 44.00 at pre-test to 76.00 at post-test, representing a gain of 32 points, which points to a strong positive effect of the intervention on listening performance. These results align with prior research demonstrating that exposure to authentic audio materials through mobile-assisted platforms can significantly improve listening comprehension by strengthening both bottom-up processing, such as decoding sounds and words, and top-down processing, such as interpreting meaning from context (Kizi & Mashrabovna, 2025; Kongsumruay et al., 2026; Wahidah et al., 2026). Furthermore, Brady-Myerov (2024) and Salah et al., (2021) research on digital language learning further confirms that repeated listening opportunities and multimodal input, such as audio combined with transcripts, facilitate deeper comprehension and retention. The substantial gains observed in this study reflect the pedagogical affordances of the VOA Learning English application, which supports listening skill development through structured, authentic, and accessible input.

The control group also showed improvement, with mean scores rising from 42.43 to 65.71 points; however, the magnitude of gain in the experimental group was considerably greater, underscoring the added value of the VOA Learning English application. This difference indicates that technology-enhanced instruction provides more effective learning support than conventional methods, consistent with Mislawiyadi & Bari (2025) research showing that while traditional instruction can yield incremental gains, the integration of digital and mobile-assisted tools tends to produce more substantial improvements through increased exposure, interactivity, and learner control. Research in EFL contexts similarly demonstrates that technology-enhanced environments facilitate more efficient skill development by enabling repeated practice and access to authentic input, resources that conventional classroom settings often lack (Nasution et al., 2023; Nurmala et al., 2023). The greater improvement in the experimental group thus underscores the pedagogical advantage of incorporating mobile-assisted applications such as VOA Learning English into listening instruction. Notably, the standard deviation in the experimental group decreased from 17.98 to 12.41, indicating greater consistency in performance and suggesting that the intervention benefited learners across the full range of initial proficiency levels.

Inferential statistical analysis further supports these findings. Paired-sample t-tests revealed statistically significant improvements in both groups, though the experimental group recorded a substantially higher t-value ($t = -11.728$, $p < .001$) compared to the control group ($t = -7.897$, $p < .001$), confirming a greater magnitude of improvement. These results are consistent with prior empirical studies showing that technology-enhanced language learning interventions often yield larger effect sizes than conventional instruction, owing to increased learner engagement and access to repeated, meaningful input (Lee et al., 2022; Rhodes et al., 2024; A. Yu & Trainin, 2022). Moreover, research in applied linguistics has highlighted that statistically significant gains accompanied by larger effect magnitudes typically reflect the effectiveness of pedagogical interventions that integrate authentic materials and interactive features (Nurzhanova & Gribenyuk, 2024; Virginiya & Lastari, 2025; Wang et al., 2023). The stronger statistical outcomes observed in the experimental group thus provide robust evidence for the effectiveness of VOA Learning English in enhancing students' listening comprehension.

The independent-sample t-test further revealed a statistically significant difference between the post-test scores of the two groups (t = -3.077, p = .003), with the experimental group achieving higher overall performance. This confirms the effectiveness of the VOA Learning English application and provides strong evidence that it significantly enhances listening comprehension. The result is consistent with prior studies demonstrating that learners in mobile-assisted and technology-enhanced environments outperform those in traditional settings, owing to greater access to authentic input and flexible learning opportunities (Haerazi, 2023; Lin et al., 2025; Zhou et al., 2024). Research on second language acquisition further suggests that statistically significant between-group differences confirm the added pedagogical value of digital tools, particularly when they facilitate repeated exposure and learner autonomy (Fazilla et al., 2022; Joshi et al., 2025). The significant difference between the groups thus reinforces the conclusion that integrating VOA Learning English into listening instruction offers a measurable advantage over conventional teaching methods.

Visual analyses, including score distribution and correlation plots, further reinforced these findings. The experimental group exhibited a more pronounced shift toward higher scores and tighter clustering, indicative of more consistent learning progress. Taken together, the findings confirm that integrating VOA Learning English produces substantial and statistically significant improvements in listening comprehension. These patterns are consistent with prior research indicating that reduced score dispersion and stronger clustering in post-test results reflect more stable and uniform learning outcomes, particularly in technology-enhanced environments (Kartini, 2020; Topano et al., 2021; Wibawanto et al., 2022). Research in listening pedagogy further highlights that consistent improvement across learners is typically associated with structured exposure to comprehensible input and repeated practice, both of which are well-supported by digital platforms (Al-Jarf, 2026; Wijaya, 2023). The visual evidence in this study thus complements the statistical findings and underscores the effectiveness of VOA Learning English in promoting both higher achievement and more consistent listening development.

Students' Perceptions of Using VOA Learning English

The qualitative findings from the interviews provided deeper insights into students' experiences with the VOA Learning English application. Overall, students reported positive learning experiences, describing the application as more engaging and interactive than conventional listening activities, suggesting that it effectively transformed the learning environment into a more stimulating, learner-centered space. These findings are consistent with prior research indicating that MALL environments enhance engagement by offering interactive features, authentic content, and flexible access, collectively fostering active participation and deeper involvement in the learning process (Kukulska-Hulme, 2020; Shahi, 2025; Zaniar et al., 2025). Furthermore, research on technology-enhanced language learning emphasizes that learner-centered digital environments shift the instructional focus from teacher-led delivery to student-driven exploration, thereby increasing autonomy and meaningful engagement (Agyei et al., 2024; Santos, 2025; Tang, 2025). The positive perceptions reported in this study reinforce the view that VOA Learning English effectively creates an engaging and learner-centered listening environment.

Students highlighted several features that supported their learning, particularly the transcript and replay functions. The transcript feature was frequently cited as a valuable tool for clarifying unfamiliar vocabulary and confirming meaning, while the replay function enabled repeated listening and more effective processing of spoken input. These findings align with prior research indicating that multimodal input, combining audio with textual support, facilitates deeper comprehension by enabling learners to cross-check meaning and reinforce lexical knowledge (Huang et al., 2021; J. Yu & Liu, 2022; Zhang & Peng, 2024). Research on listening instruction further confirms that repeated exposure to input is critical for developing proficiency, as it allows learners to progressively decode speech and build confidence in understanding the spoken language (Arockiasamy et al., 2025; Priya & Kumar, 2022). The

features identified by students thus constitute key pedagogical affordances that support both comprehension and the development of effective listening strategies.

Higher-achieving students reported that the application enhanced both their comprehension and motivation, citing the clarity of the audio, accessibility of the materials, and flexibility of learning as key contributing factors. These findings align with Viberg et al. (2023) research indicating that high-performing learners tend to benefit more from technology-enhanced environments that offer flexible access and control over learning pace, thereby fostering greater autonomy and deeper engagement. Furthermore, Tuong & Dan (2024) and Sabir et al. (2025) research suggests that learning environments supporting autonomy and perceived competence significantly enhance both motivation and performance, particularly among learners already capable of managing their own learning. The experiences of higher-achieving students in this study highlight the role of mobile-assisted applications in promoting self-directed learning and optimizing cognitive and motivational outcomes.

Students with moderate achievement levels also expressed positive perceptions, although they occasionally encountered difficulties with unfamiliar vocabulary. Despite these challenges, repeated listening and teacher guidance helped them improve their understanding, indicating that the application supported gradual learning progression. These findings are consistent with Safa & Motaghi (2024) research showing that intermediate-level learners often rely on scaffolding strategies, such as repetition and instructional support, to bridge gaps in vocabulary and comprehension. Furthermore, Sabir et al. (2025) and Sarzhanova et al. (2025) research highlights the importance of combining digital tools with teacher facilitation, as guided support can maximize the effectiveness of mobile applications by helping learners use them strategically. The experiences of moderate-level students underscore the complementary roles of technological features and pedagogical guidance in supporting progressive listening skill development.

Students with lower achievement levels acknowledged that listening tasks were sometimes challenging due to limited vocabulary; however, they also noted that the application's built-in features, including transcripts and replay options, helped them overcome these difficulties, suggesting that the application provided effective scaffolding across varying proficiency levels. These findings are consistent with Aldamen et al. (2026) research indicating that lower-proficiency learners benefit significantly from scaffolded input, where textual support and repeated exposure reduce cognitive load and facilitate comprehension. Furthermore, Alkhalaf (2023) and Ya'u (2025) research on multimedia learning emphasizes that supportive features such as captions and replay functions enable learners to process input at their own pace, improving understanding and confidence. The experiences of lower-achieving students in this study highlight the importance of built-in scaffolding in digital learning applications for making listening tasks accessible and manageable across varying proficiency levels.

Overall, the interview findings revealed several consistent themes, including increased engagement, improved comprehension, and enhanced motivation. Students uniformly perceived the application as beneficial, practical, and supportive of their learning, reinforcing its value as an effective instructional tool. These qualitative insights complement the quantitative findings and confirm that VOA Learning English effectively enhances both motivation and listening comprehension. Such convergence of qualitative and quantitative evidence aligns with prior mixed-methods studies, which emphasize that triangulated findings provide a more comprehensive and valid understanding of learning outcomes in technology-enhanced environments (Chandanabhumma et al., 2023). Moreover, Baby (2025) research on MALL consistently demonstrates that digital applications can simultaneously support cognitive development and motivational engagement when they integrate authentic materials and interactive features. The convergence of evidence across data sources in this study strengthens the overall conclusion that VOA Learning English is a robust and effective tool for improving both listening skills and learner motivation.

CONCLUSIONS

This study demonstrates that the VOA Learning English application effectively improves both listening comprehension and learning motivation among tenth-grade EFL learners. Students who used the application achieved greater listening gains than those receiving conventional instruction, while qualitative findings showed that they perceived the platform as engaging, supportive, and beneficial for independent learning. The application's authentic content, multimodal features, and flexible access enabled learners of varying proficiency levels to participate actively and develop listening skills more effectively. These findings also support Self-Determination Theory, indicating that technology-enhanced learning environments can strengthen learner autonomy, competence, and motivation. Despite these positive outcomes, the study was limited by its relatively small sample, single-school setting, and short intervention period, which may restrict the generalizability and long-term interpretation of the findings. Furthermore, variables such as learner anxiety, digital literacy, and self-regulated learning were not examined. Therefore, teachers are encouraged to integrate mobile-assisted listening applications into EFL classrooms, while future research should investigate their long-term effectiveness across diverse educational contexts, learner populations, and additional psychological and technological factors.

REFERENCES

Agyei, E. D., Jita, L. C., & Jita, T. (2024). Technology Integration in Science Classrooms: Empowering student teachers for improved physics teaching with simulations. *Contemporary Mathematics and Science Education*, *5*(2). https://doi.org/10.30935/conmaths/14688

Al-Jarf, R. (2026). Online Videos and Podcasts for Language learning in the Saudi Context: A Systematic Review (2010-2025). *Journal of English Language Teaching and Applied Linguistics*, *8*(5), 86–107. https://doi.org/10.32996/jeltal.2026.8.5.11

Alda, R. C. (2023). Mobile-Assisted Language Learning (MALL) in Senior High School English Classes. *World Journal of English Language*, *13*(6), 211. https://doi.org/10.5430/wjel.v13n6p211

Aldamen, H., Alnemrat, A., Al-Deaibes, M., & Alsharefeen, R. (2026). Using AI to adapt reading input for mixed-proficiency EFL learners. *Frontiers in Education*, *11*. https://doi.org/10.3389/feduc.2026.1737903

Alhamami, M. (2022). Language Learners' Attitudes Toward Online and Face-To-Face Language Environments. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.926310

Alisoy, H., & Sadiqzade, Z. (2024). Mobile-Assisted Language Learning (MALL): Revolutionizing Language Education. *Lumin*, *1*(1), 60–72. https://doi.org/10.69760/lumin.202400002

Alkhalaf, M. (2023). Incidental Learning of L2 Collocations in an Academic Lecture: A Multimedia Theory Perspective. *World Journal of English Language*, *13*(6), 480. https://doi.org/10.5430/wjel.v13n6p480

Almajali, C. (2022). The Effect of Authentic Material on the Cultural Awareness and Motivation of Jordanian EFL learners. *Bulletin of the Transilvania University of Brasov. Series IV: Philology and Cultural Studies*, 9–30. https://doi.org/10.31926/but.pcs.2022.64.15.1.1

Alzaanin, E. I. (2023). Using the Motivation and Engagement Wheel to Examine the Interplay Between Learner Engagement, Motivation, Year Level, and Academic Achievement in an EFL Tertiary Context. *Journal of Language Teaching and Research*, *14*(3), 767–779. https://doi.org/10.17507/jltr.1403.25

Arbain, M. (2025). Challenges and Strategies in Listening Comprehension: A Case Study of Indonesian EFL Learners. *Journal English Education and Linguistic*, *4*(1), 1–23. https://doi.org/10.56489/peel.v4i1.375

Arockiasamy, J. C., Hoque, M. S., A, S. K., Kumar, J. S., & Kotte, R. (2025). The Role of

Audiobooks in Developing English Listening Proficiency: A Study of Undergraduate Learners in Tamil Nadu. *International Journal of English Language and Literature Studies*, *14*(4), 566–578. https://doi.org/10.55493/5019.v14i4.5716

Baby, K. T. (2025). Motivating EFL Students Through Digital Application Technology. *Journal of Information Systems Engineering and Management*, *10*(40s), 877–883. https://doi.org/10.52783/jisem.v10i40s.7532

Bashirli, Y. (2024). Formation of Students' Listening Comprehension Skills in Teaching English from A Linguodidactic Perspective. *Journal of Linguodidactics*, *29*(58), 24–39. https://doi.org/10.58442/3041-1831-2024-29(58)-24-39

Bhestari, B. M., & Luthfiyyah, R. (2021). EFL Students' Perceptions towards the Use of MALL to Promote Students' Learning Autonomy. *Academic Journal Perspective: Education, Language, and Literature*, *9*(2), 77–87. https://doi.org/10.33603/perspective.v9i2.6012

Brady-Myerov, M. (2024). Using Listenwise for Listening Comprehension in the Language Classroom (Media Review). *Teaching English as a Second or Foreign Language (TESL-EJ)*, *28*(2). https://doi.org/10.55593/ej.27110m2

Chakir, M., & Lamjahdi, A. (2024). Mobile Assisted Language Learning in EFL Contexts: Maximizing Vocabulary Acquisition through Messenger Apps. *International Journal of Language and Literary Studies*, *6*(4), 178–192. https://doi.org/10.36892/ijlls.v6i4.1875

Chandanabhumma, P. P., Zhou, S., Fetters, M. D., & Likosky, D. S. (2023). Expanding Our Methodological Toolbox to Improve Quality: The Role of Mixed-Methods Evaluations. *Circulation: Cardiovascular Quality and Outcomes*, *16*(5), e009629. https://doi.org/10.1161/CIRCOUTCOMES.122.009629

Fachriza, A. (2024). The Utilization of The VOA Podcast for EFL's Response Tasks of Listening Activity at MAN 3 Ngawi. *ETJaR: English Teaching Journal and Research*, *4*(1), 56–73. https://doi.org/10.55148/etjar.v4i1.985

Fazilla, S., Yus, A., & Muthmainnah, M. (2022). Digital Literacy and TPACK's Impact on Preservice Elementary Teachers' Ability to Develop Science Learning Tools. *Profesi Pendidikan Dasar*, *9*(1), 71–80. https://doi.org/10.23917/ppd.v9i1.17493

Haerazi. (2023). Mobile-Assisted Flipped Learning Integrated with Metacognitive Skills in the Teaching of Speaking and Listening Skills. *Journal of English Education and Teaching*, *7*(3), 632–651. https://doi.org/10.33369/jeet.7.3.632-651

Hocaoğlu, N., & Ocak, G. (2024). Development and Validation of a Motivation Scale for English Listening. *International Journal of Contemporary Educational Research*, *11*(4), 440–456. https://doi.org/10.52380/ijcer.2024.11.4.583

Huang, Z., Liu, F., Wu, X., Ge, S., Wang, H., Fan, W., & Zou, Y. (2021). Audio-Oriented Multimodal Machine Comprehension via Dynamic Inter- and Intra-modality Attention. *Proceedings of the AAAI Conference on Artificial Intelligence*, *35*(14), 13098–13106. https://doi.org/10.1609/aaai.v35i14.17548

Hương, L. P. H., & Bui, H. P. (2024). English Listening via Online Applications: Tool-mediated Language Learning by EFL University Students. *LEARN Journal: Language Education and Acquisition Research Network*, *17*(2), 814–837. https://doi.org/10.70730/kife1132

Inayah, R., & Rahayu, S. (2022). The Use of VOA Special English as a Media to Empower Students' Writing and Speaking Skills in Distance Learning During COVID-19 Pandemic Time. *PROJECT (Professional Journal of English Education)*, *5*(2), 244–255. https://doi.org/10.22460/project.v5i2.p244-255

Joshi, D. R., Khanal, B., & Adhikari, K. P. (2025). Effects of Digital Pedagogical Skills of Mathematics Teachers on Academic Performance. *International Journal of Educational Reform*, *34*(4), 665–688. https://doi.org/10.1177/10567879231164615

Kamaruddin, S. F. B., Saifullizam, N. Z. B., Mohd Zahid, A. Z. B., Khalid, N. B., & Mat Zin, M. B. (2025). Exploring the Influence of Learner-To-Learner Interaction in Online Learning. *International Journal of Research and Innovation in Social Science*, 659–671. https://doi.org/10.47772/IJRISS.2025.90900059

Kartini, N. H. (2020). Application of BAPER Learning Media on Student Learning Outcomes.

Journal of Physics: Conference Series, *1477*(4). https://doi.org/10.1088/1742-6596/1477/4/042006

Kizi, Y. S. K., & Mashrabovna, U. M. (2025). Overcoming Listening Challenges with Authentic Materials in EFL Education. *International Journal of Science and Technology*, *2*(4), 16–17. https://doi.org/10.70728/tech.v2.i04.004

Kongsumruay, K., Neadpuckdee, R., Worabuttara, T., & Suwannarach, J. (2026). Development of a Mobile Application to Enhance English Listening Comprehension Skills of Thai EFL Learners. *Journal of Education and Learning*, *15*(4), 220. https://doi.org/10.5539/jel.v15n4p220

Kukulska-Hulme, A. (2020). Mobile-Assisted Language Learning. In *The Encyclopedia of Applied Linguistics* (pp. 1–9). John Wiley & Sons. https://doi.org/10.1002/9781405198431.wbeal0768.pub2

Kusumoriny, L. A., & Aziz, A. (2025). Listening Comprehension Challenges and Facilitating Factors Among Indonesian EFL Students in English-Speaking Countries. *Lingua Kultura*, *19*(3), 175–186. https://doi.org/10.30595/lks.v19i3.26744

Lee, S., Kuo, L.-J., Xu, Z., & Hu, X. (2022). The Effects of Technology-Integrated Classroom Instruction on K-12 English Language Learners' Literacy Development: A Meta-Analysis. *Computer Assisted Language Learning*, *35*(5–6), 1106–1137. https://doi.org/10.1080/09588221.2020.1774612

Lin, C., Hsu, H., & Lin, C. (2025). Confirming The Efficacy of Vocabulary-Enhanced L2 Listening with Mobile Applications: The Extended Technology Acceptance Model Revisited. *Applied Linguistics Review*. https://doi.org/10.1515/applirev-2024-0288

Mislawiyadi, & Bari, S. (2025). The Integrating Technology in English Speaking Instruction: A Literature Review on Tools, Strategies, and Impact. *JOEY: Journal of English Ibrahimy*, *4*(2), 75–89. https://doi.org/10.35316/joey.2025.v4i2.75-89

Mubarok, H., & Sofiana, N. (2022). An Evaluation of English Language Teaching in Indonesian Schools. *KnE Social Sciences*, *2022*, 12–25. https://doi.org/10.18502/kss.v7i14.11947

Mula, M., Naka, L., & Sylhasi, F. (2024). Intrinsic and Extrinsic Motivation of Primary School Students for Mathematics and English as a Foreign Language. *International Electronic Journal of Elementary Education*, *17*(1), 191–202.

Nababan, I. A., Sibarani, B., & Sitanggang, A. (2024). VOA English Learning YouTube Channel as a Speaking Skill Learning Media: Case Study of Students' Perception at University HKBP Nommensen Pematangsiantar (UHKBPNP). *International Journal of Educational Research Excellence*, *3*(2), 629–635. https://doi.org/10.55299/ijere.v3i2.987

Nasution, A. B., Nugroho, A. Y., Anggriana, R. S., Sari, R. E., & Gunawan, H. (2023). Implementation of Streaming Video Information Systems for Web-Based Computer Science Learning. *Indonesian Journal of Interdisciplinary Research in Science and Technology*, *1*(6), 389–396. https://doi.org/10.55927/marcopolo.v1i6.4973

Nirwana, Ampa, A. T., & Asmayanti. (2025). Teaching Listening Through Real-World English: VOA Videos at SMP Negeri 13 Makassar. *English Language Teaching Methodology*, *5*(2), 89–96. https://doi.org/10.56983/eltm.v5i2.291

Nisa, K., & Muid, F. A. (2024). The Influence of the New Curriculum on Arabic Grammar Learning in High Schools. *Journal of Linguistics and Applied Linguistics*, *2*(3), 51–56.

Nurjanah, A., & Panjaitan, N. B. (2024). Challenges in E3 Listening Skills: Perspectives of Universitas Advent Indonesia Students. *NUSRA: Jurnal Penelitian Dan Ilmu Pendidikan*, *5*(2), 455–465. https://doi.org/10.55681/nusra.v5i2.2614

Nurmala, I., Irianto, S., Franchisca, S., Amsa, H., & Susanti, R. (2023). Technology-Enhanced Language Learning: A Meta-Analysis Study On English Language Teaching Tools. *Journal on Education*, *6*(1), 2188–2195. https://doi.org/10.31004/joe.v6i1.3221

Nurzhanova, A. R., & Gribenyuk, M. A. (2024). Comparative Analysis of The Linguistic and Interactional Features of English Learning Websites. *Bulletin of Dulaty University*, *14*(2), 44–53. https://doi.org/10.55956/CHDY3964

Perlman, A. (2026). *Comparing Attitudes toward Online and Traditional Learning across Age*

Groups. https://doi.org/10.31234/osf.io/3hp4z_v1
Phung, H., Tran, N., & Hoang, D. (2023). Empowering Students with Authentic Tasks to Learn English Beyond the Classroom: A club-based model. *Innovation in Language Learning and Teaching*, *17*(2), 191–201. https://doi.org/10.1080/17501229.2021.1998068
Priya, M. L. S., & Kumar, P. (2022). Improving Vocabulary and Pronunciation of Secondary Level ESL Learners Through Language and Meaning-Focused Listening: An Experimental Study. *Studies in Media and Communication*, *10*(2), 272–278. https://doi.org/10.11114/smc.v10i2.5775
Qiu, Y. (2025). Intrinsic and Extrinsic Motivation in Remote Learning. *SHS Web of Conferences*, *222*, 1–8. https://doi.org/10.1051/shsconf/202522204006
Ranoco, J. E. (2025). Self Determination and Engagement of Social Studies Students in the Selected Private Schools. *International Journal on Integrated Education*, *8*(4), 220–234. https://doi.org/10.31149/ijie.v8i4.5446
Rhodes, M. J., Visscher, A. J., van Keulen, H., & Gijsel, M. A. R. (2024). A Review of the Effects of Integrated Language, Science and Technology Interventions in Elementary Education on Student Achievement. *European Journal of STEM Education*, *9*(1), 6. https://doi.org/10.20897/ejsteme/14570
Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 68–78.
Sabir, M. T., Tony, D. B. J. A. R., & Tauseef, H. (2025). Integrating Digital Tools into ESL Listening Instruction: A Mixed-Methods Study of Strategy-Based Technology Use. *International Journal of Science and Research Archive*, *17*(3), 777–792. https://doi.org/10.30574/ijsra.2025.17.3.3322
Safa, M. A., & Motaghi, F. (2024). Cognitive vs. Metacognitive Scaffolding Strategies and EFL Learners' Listening Comprehension Development. *Language Teaching Research*, *28*(3), 987–1010. https://doi.org/10.1177/13621688211021821
Salah, A.-S., El-Din, & Al-Feky, A. (2021). Developing EFL University Students' Vocabulary Retention and Some Listening Comprehension Skills through Some Electronic Devices. *مجلة جامعة مصر للدراسات الإنسانية*. https://doi.org/10.21608/mjoms.2021.153751
Santos, B. (2025). Reimagining Science Education through Student-Led Dynamics. *Psychology and Education: A Multidisciplinary Journal*, *44*. https://doi.org/10.70838/pemj.440805
Sarzhanova, D., Rizakhojayeva, G., Akeshova, M., Shakiyeva, A., Yessimgaliyeva, T., & Ibrayeva, L. (2025). The Impact of Information-Contextual Technologies on Shaping Foreign Language Teaching Proficiency in Prospective Educators. *Forum for Linguistic Studies*, 852–862. https://doi.org/10.30564/fls.v7i3.8822
Shahi, D. K. (2025). ICT-Based Teaching-Learning Tools Used in ELT. *AMC Multidisciplinary Research Journal*, *4*(1), 1–12. https://doi.org/10.3126/amrj.v4i1.78672
Shamsi, E., & Bozorgian, H. (2024). Collaborative Listening Using Multimedia through Metacognitive Instruction: A case study with less-skilled and more-skilled EFL learners. *Asian-Pacific Journal of Second and Foreign Language Education*, *9*(1), 25. https://doi.org/10.1186/s40862-023-00248-8
Sütçü, N. D., & Durmuş, Z. (2026). The Mediating Role of Intrinsic and Extrinsic Motivation in the Relationship between Digital Technology Use and Mathematics Achievement. *Journal of Learning and Teaching in Digital Age*, 101–110. https://doi.org/10.53850/joltida.1745284
Tang, Z. (2025). Research on the Reform of College Physics Teaching in the Context of Digitalization. *Journal of Education, Teaching and Social Studies*, *7*(4), 1. https://doi.org/10.22158/jetss.v7n4p1
Topano, A., Asiyah, Basinun, Walid, A., Alimi, & Febrini, D. (2021). Improving Student Cognitive Learning Outcomes Through the Development of Interactive Multimedia-Based Biology Learning at Muhammadiyah University, Bengkulu. *Journal of Physics: Conference Series*, *1796*(1). https://doi.org/10.1088/1742-6596/1796/1/012042
Tuong, N. K., & Dan, T. C. (2024). A Study on Duolingo Mobile Applications to Improve EFL Students' Listening Comprehension Performances. *European Journal of Alternative*

Education Studies, *9*(1). https://doi.org/10.46827/ejae.v9i1.5342
Viberg, O., Kukulska-Hulme, A., & Peeters, W. (2023). Affective Support for Self-Regulation in Mobile-Assisted Language Learning. *International Journal of Mobile and Blended Learning*, *15*(2). https://doi.org/10.4018/IJMBL.318226
Virginiya, P. T., & Lastari, N. K. H. (2025). The Utilization of 360-Website as Authentic Materials in ESP: Opportunities and Challenges. *Perspektif Ilmu Pendidikan*, *39*(1), 16–26. https://doi.org/10.21009/PIP.391.3
Wahidah, F. S., Mujiyanto, J., Rukmini, D., & Rustipa, K. (2026). Authentic Spoken English on YouTube: Integrating YouTube Vlogs into Mobile-Assisted Extensive Listening for EFL Students. *Elsya: Journal of English Language Studies*, *8*(1), 1–14. https://doi.org/10.31849/2w33z089
Wang, M., Yang, L.-Z., & Chen, T. (Charline). (2023). The Effectiveness of ICT-Enhanced Learning on Raising Intercultural Competencies and Class Interaction in A Hospitality Course. *Interactive Learning Environments*, *31*(2), 994–1006. https://doi.org/10.1080/10494820.2020.1815223
Wibawanto, H., Roemintoyo, & Rejekiningsih, T. (2022). Simulation-Based Interactive Multimedia to Improve Vocational Students' Learning Outcomes. *World Journal on Educational Technology: Current Issues*, *14*(6), 1927–1942. https://doi.org/10.18844/wjet.v14i6.8363
Wijaya, K. F. (2023). The Influential Impacts of Digital Storytelling Towards the Improvement of EFL Learners' Speaking Skills. *Journal of Research on Language Education*, *4*(2), 11–17. https://doi.org/10.33365/jorle.v4i2.2651
Wijayanti, R. A., Saraswati, R., & Santosa, I. (2024). Students' Motivation To Learn English As Foreign Language (EFL): A Case Study. *JUPE: Jurnal Pendidikan Mandala*, *9*(3), 743–754. https://doi.org/10.58258/jupe.v9i3.7425
Wiwoho, G. (2022). Listening First Approach and Listening Strategies towards Successful EFL Listening Classroom. *LINGUAMEDIA Journal*, *2*(2). https://doi.org/10.56444/lime.v2i02.2863
Ya'u, M. S. (2025). Comparative Analysis of Multimedia Tools for Enhancing English Grammar Instruction Among Adult Learners in Northeastern Nigeria. *Indonesian Journal of E-Learning and Multimedia*, *4*(1), 1–10. https://doi.org/10.58723/ijoem.v4i1.321
Yaqoob, A., Nawab, M., & Sattar, S. (2025). The Impact of Technology Integration on Language Learning: Examining Learner Motivation, Engagement, and Outcome. *International Journal of Law and Policy*, *3*(7), 28–51. https://doi.org/10.59022/ijlp.347
Yu, A., & Trainin, G. (2022). A Meta-Analysis Examining Technology-Assisted L2 Vocabulary Learning. *ReCALL*, *34*(2), 235–252. https://doi.org/10.1017/S0958344021000239
Yu, J., & Liu, X. (2022). Text First or Picture First? Evaluating Two Modes of Multimodal Input for EFL Vocabulary Meaning Acquisition. *SAGE Open*, *12*(3). https://doi.org/10.1177/21582440221119469
Zaniar, S., Djuwari, Afandi, M. D., Aquariza, N. R., & Authar, N. (2025). Enhancing Writing Proficiency Through Mobile-Assisted Language Learning (MALL): Insights and Innovations. *English Language Teaching Methodology*, *5*(1), 31–42. https://doi.org/10.56983/eltm.v5i1.1757
Zhang, P., & Peng, Y. (2024). Multimodal Reading in Reading-Only Versus Reading-While-Listening Modes: Evidence from Chinese Language Learners. *Chinese as a Second Language Research*, *13*(2), 215–236. https://doi.org/10.1515/caslar-2024-2003
Zhou, X., Teng, D., & Al-Samarraie, H. (2024). The mediating role of generative AI self-regulation on students' critical thinking and problem-solving. *Education Sciences*, *14*(12), 1302. https://doi.org/10.3390/educsci14121302