

## Teachers' Knowledge of Integrating Mobile Applications into Teaching Listening to Adult Learners in an English Course

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### ABSTRACT

This study investigates teachers' knowledge and challenges in utilizing mobile applications in listening instructions for adult learners. The research employs a qualitative method with a case study approach, employing single data collected at the Jogja English Training Centre (JETC) in Yogyakarta, Indonesia. Data was collected through a questionnaire including closed-ended and open-ended questions to obtain insights into teachers' confidence, familiarity, and pedagogical comprehension of mobile applications for teaching listening. Findings show that teachers have a strong knowledge of integrating mobile applications. They mix traditional methods with mobile tools and keep themselves updated with the latest technological enhancements. However, teachers still need professional development in monitoring students' progress. This research highlights the potential of teachers' knowledge of mobile applications to develop students' listening skills. It is suggested that teachers get training to maximize the utilization of mobile applications. The limitation of the study is the dependency on a single data source, reinforcing future research by incorporating a variety of data to get a more comprehensive analysis

## **INTRODUCTION**

In recent years, mobile technology has enhanced the functionality of mobile devices, not only is it used for communication purposes but also learning purposes. As these technologies continue to evolve, they can transform the language-learning landscape to meet the needs of students. The transformation happens when mobile phones are used as learning tools (Wiley, J. & Sons, 2024). It is significant for teachers to know mobile applications as they have an important role in guiding students to select effective learning tools. Teachers with a firm understanding of educational mobile apps can give suggestions to their students to use appropriate applications that align with students' learning goals. Furthermore, teachers can leverage these apps' features for extra-curricular materials, motivating students, and engaging in language learning. Not only do the apps enhance the learning process, but also maximize the benefits of mobile apps in education. Knowledge of these tools can empower teachers to be more supportive and resourceful for their students (Lu & Xiong, 2023).

In relevance to English skills, listening is crucial in language learning for effective communication, especially in higher education where participation in discussions, lectures, and presentations is essential (Mahalingappa, Zong, & Polat, 2024). Nevertheless, many learners face challenges in developing solid listening skills and teachers often fail to observe the potential of integrating mobile applications into their teaching strategies. Mobile applications can develop listening abilities by offering interaction, accessibility, and engagement in learning experiences. Application features for example audio recognition, vocabulary building, and other comprehension tasks help students to improve their understanding (Laghari, Kazi, & Nizamani, 2017).

Mobile applications are widely used in learning English as a foreign language for the development of language skills particularly utilized for vocabulary learning (Klimova, 2021). It can be particularly attractive to low-achieving students with low self-efficacy in learning vocabulary, as they reduce anxiety by allowing students to practice language without face-to-face interaction (Hao et al., 2019). These students may also find language learning apps enjoyable, as game-based elements enhance their motivation to learn vocabulary (Hao et al., 2019). The process of vocabulary acquisition includes incidental and intentional learning activities that complete each other, fostering the expansion of learners' vocabulary to be more successful in communication (Poláková, 2022). This process can be done on mobile devices (Poláková, 2022). Among these researches, the integration of mobile applications into English skills such as listening has not been addressed. Hence, investigating teachers' knowledge of integrating mobile applications for teaching is important due to the poor knowledge of teachers' perspectives on the advantages, benefits, challenges, and issues referred to the utilization of mobile devices in schools (Vaiopoulou et al., 2023).

Teachers often rely on traditional teaching methods, underutilizing the potential of mobile applications. This happens due to teaching practices that are still influenced by conventional methods and insufficient training for teachers to promote language learning for students and improve teachers' overall communicative skills. (Demekash, Degefu, & Woldeab, 2024). Additionally, students often struggle with improving their listening skills despite the availability of mobile applications designed for language learning. The main motivation for students to use applications is the sense of accomplishment they get from them, as they will continue to put in efforts to achieve high scores (Lu & Xiong, 2023).

The context of the study is in Jogja English Training Centre (JETC) in Yogyakarta, Indonesia. Since the study of teachers' knowledge in integrating mobile applications into listening skills is rare in informal education, thus it is important to conduct this research to gain more insights.

The research questions are:

1. How do teachers perceive their knowledge to integrate mobile applications into listening instruction?
2. What challenges do teachers face when incorporating mobile applications for teaching listening?

## **LITERATURE REVIEW**

### **Mobile Applications**

Mobile application utilizations allow language learning to happen inside and outside of traditional classroom settings (Klimova, 2021). Mobile applications are designed software programs to operate on electronic devices like tablets and devices to function specifically. The number of people possessing smartphones rapidly increased with the development of science. Thereafter, mobile applications in smartphones expand to boarder fields including education (Lu & Xiong, 2023). Mobile learning builds an interactive learning condition, using a variety of applications accessible on mobile devices (Gafni, Achituv, & Rachmani, 2017). This advancement should be a huge advantage for students as these apps can be a supportive tool for learning a language to achieve their learning goals guided by their teachers (Lu & Xiong, 2023).

One of the advantages is that mobile applications are positively connected with language skills (Booton, Hodgkiss, & Murphy, 2021). In the learning context, they are used in the development of all language skills which are listening, speaking, reading, and writing (Klimova, 2021). Regardless of where, and when technology is available, students are able to learn right at their fingertips.

### **Listening**

Listening is a complex process that involves more than just hearing. It consists of understanding the speaker's message, interpreting the intention, taking part emotionally, and creating a more meaningful connection (Rost, 2011). It's an active interaction where both the speaker and listener contribute to the conversation, responding to verbal and non-verbal cues (Kluger and Mizrahi, 2023). Effective listening involves grasping the content of what is said and the underlying meaning (Bodie, 2023). Overall, it's a crucial and dynamic part of communication.

## **Teacher Knowledge**

Technological pedagogical knowledge (TPK) reflects how consolidating particular technologies can transform and develop educational applications by fostering teachers' effective use of ICT (Lavidas et al., 2021; Mishra & Koehler, 2006). ICT teaching uses tools such as LMS, collaboration video, MOOCs, mobile devices, and virtual labs to support remote, combined, and flexible learning approaches (Shamim et al., 2024). This includes mobile applications. Teachers' technological pedagogical knowledge unquestionably influences their readiness to incorporate mobile applications into their teaching practices (Xu & Zhu, 2020).

To teach effectively teachers' understanding of the subject matter and students' needs are crucial. Teachers should adapt methods that match particular situations in the class. How teachers teach reflects how they learn, and from that, they can adapt to how they teach their students. Fundamentally, teaching is viewed as an inversion of learning where the teachers should facilitate their students' understanding rather than focusing on themselves (Brown, 2006). Teaching and learning are correlated and cannot be fully understood separately. Teaching requires facilitating and guiding learning by creating a conducive environment. A teacher's understanding of how learners obtain knowledge molds their teaching styles, methods, and approaches. By understanding this, teachers can adapt meaningful and productive learning processes, (Brown, 2006).

## **METHODOLOGY**

### **Research Design**

This study uses qualitative methods to explore teachers' knowledge in integrating mobile applications into learning listening, to identify challenges the teachers accept when embracing mobile applications for teaching listening, and to deliver recommendations for improving teachers' knowledge to assimilate mobile applications in listening lessons. Qualitative research is a method to explore and comprehend individuals or groups associated with specific social or personal issues. This approach includes collecting data within the participants' natural settings. Thereafter, researchers interpret the findings to derive meaning from the data collected (Creswell, 2018). The approach for this research is a case study.

For this study, the qualitative method uses a case study approach which explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) (Creswell, 2013). This entails comprehensive, in-depth data collection from different information sources, such as inspections, dialogues, digital media, and questionnaires. After collecting and analyzing data in a case study, the researcher takes two key elements. First, detailed explanations are provided from the case itself offering context and background information. And then, key findings or patterns are highlighted to emerge the study that emphasizes the main insights or issues. A case study provides a clear understanding of the case and the important lesson from the study. The unit of analysis in case study research can be one case (a within-site study) or multiple cases (a multisite study) (Yin, 2014).

This study is a single case study or one instrumental case study. The researcher investigates a specific issue or concern and selects a detailed bounded case to investigate and embellish the issues (Creswell & Poth, 2018).

### **Data Collection**

For this study, the data collection is from teachers' questionnaires. The questionnaires provide an in-depth analysis of teachers' knowledge and teachers' challenges in using mobile applications. The questionnaires consist of both closed-ended and open-ended questions. Closed-ended questions, using a scale, assess teachers' familiarity, confidence, and understanding of mobile applications. Open-ended questions provide insights into the specific challenges teachers face and their perspectives on overcoming these obstacles. The scale used for the questionnaire is as follows:

1. Strongly Disagree
2. Disagree
3. Agree
4. Strongly Agree

### **Participants**

Participants for this research are four teachers from Jogja English Training Centre (JETC) who teach English to adult learners. The teachers bring valuable insights into the study as their experience in teaching English is two to three years. Their professional background and familiarity with JETC contribute to a nuanced understanding of how mobile applications can affect the development of listening skills in this specific context.

### **RESEARCH RESULT**

From the data, it is concluded that teachers generally agreed that they knew how to choose mobile applications for adult learners to teach listening. They demonstrated a familiarity with technical features such as accessibility and interactivity that improve listening lessons. Teachers might still need clarification on distinguishing mobile applications for general English from those for listening skills. They had moderate confidence in assessing the effectiveness of mobile applications in improving listening skills. They strongly agreed that they knew how to combine traditional methods with mobile applications in listening lessons. They showed a moderate understanding of the underlying pedagogical principles. They could mitigate if there were a technical issue or learner unfamiliarity with the mobile apps. Teachers had a fair level of awareness to monitor and evaluate students' progress in listening activities. They generally agreed that they could align mobile applications with syllabi and learning objectives. The last of the close-ended questions was that teachers actively engage with new developments and techniques in mobile applications.

Overall, teachers exhibited strong knowledge of integrating mobile applications into teaching listening, particularly in integrating strategy and staying up-to-date with mobile applications. However, monitoring progress and understanding pedagogical principles could benefit from further professional development.

Table 1. Close-Ended Questions Results

No	Questions	Average Point
1	I know how to choose the most suitable mobile applications for teaching listening to adult learners.	3.5
2	I understand the technical features of mobile applications that are beneficial for teaching listening skills.	3.5
3	I am aware of the differences between mobile applications designed for general English learning and those focused specifically on listening skills.	3.25
4	I can assess the effectiveness of a mobile application in improving listening comprehension for adult learners.	3.25
5	I am knowledgeable about strategies to combine traditional teaching methods with mobile applications used for listening lessons.	3.75
6	I understand the pedagogical principles behind using mobile applications for language teaching.	3.25
7	I can identify potential challenges adult learners may face when using mobile applications for listening and know how to address them.	3.25
8	I am aware of how to monitor and evaluate student progress when using mobile applications for listening activities.	3
9	I know how to integrate mobile applications into listening activities to align with the course syllabus and learning objectives.	3.5
10	I stay informed about advancements and techniques in mobile applications for teaching listening skills effectively.	3.5

The open-ended questionnaire responses reveal several key insights into teachers' knowledge of integrating mobile applications into listening lessons for adult learners. Teachers focused on the importance of digital literacy, technical skills, and familiarity with mobile application features to incorporate them into teaching. They understood that understanding learners' needs, selecting appropriate materials, and aligning mobile applications with pedagogical objectives are significant for success. Mobile applications used included Duolingo, BBC Learning English, Spotify, Cambridge Mobile Web Dictionary, and EdPuzzle. Those mobile applications were chosen for their accessibility, interactive features, and relevance to language learning.

Specific features that were identified could enhance listening skills, such as interactive exercise, repetition, playback controls, feedback, and progress tracking. They emphasized the need for clear objectives when using these tools, such as improving listening comprehension, understanding pronunciation, or expanding vocabulary. They also highlighted that mobile applications were

complemented in the classroom rather than replacing the traditional teaching method.

Challenges recognized by teachers were technical issues such as poor internet connection, device compatibility, and application accessibility. They also identified issues related to students, such as distraction from other apps, confusion of the accents, and low engagement with uninteresting topics. Lastly, teachers noted the need to address learners' varying levels of technology proficiency and engagement in using mobile applications. Despite these challenges, teachers showed a common belief in the potential of mobile applications to develop listening skills when appropriately and thoughtfully integrated.

## DISCUSSION

The results of this research align with the important role of teachers' knowledge in utilizing mobile applications to develop listening skills. The results demonstrate that teachers mainly recognize the potential of mobile applications to help listening skills. This supports existing research, such as Lu and Xiong (2023) that highlights teachers' knowledge and familiarity are essential for maximizing mobile apps' potential benefits.

Nonetheless, the results also show gaps in practice and understanding. Teachers' ability to monitor and evaluate students' progress is still moderate. This aligns with a previous study that underlines a reliance on traditional teaching methods due to limited teacher training and insufficient attention to integrating technology effectively (Demekash, Degefu, & Woldeab, 2024). It proposes the integration of mobile applications viewed as valuable, although it remains inconsistent and often influenced by external factors, for instance, poor internet connectivity and device accessibility.

Teachers also face challenges in using mobile applications to ensure that the tools complement their teaching in the classroom. They need a clear structure between learning objectives and mobile application activities. The other challenges are students' distraction and disengagement while using mobile apps. As stated by Brown (2006) effective teaching needs a balance between guiding students and adapting methods to suit their needs.

The importance of digital literacy is highlighted as well as the ability to choose apps based on students learning objectives and needs. These are consistent with Mishra and Koehler's (2006) notion of technological pedagogical knowledge (TPK) which emphasizes the significance of integrating technology into teaching to enhance learning outcomes. Furthermore, professional development to support teachers with skills is identified as necessary.

## CONCLUSIONS

The reliance on a single data source is the limitation of the study. This may restrict the depth and breadth of insights into teachers' knowledge. The data provided is valuable, however, the absence of triangulation from multiple sources, such as classroom observations and student feedback reduces the ability to cross-verify findings to explore the practical implementation of mobile apps. Future research should integrate various data sources to serve a more comprehensive insight into the topic.

## ADVANCED RESEARCH

This study still has limitations, so further research is needed related to the topic of Teachers' Knowledge of Integrating Mobile Applications into Teaching Listening to Adult Learners in an English Course in order to perfect this study and increase insight for readers.

## REFERENCES

- Bodie, G. D. (2023). Listening as positive communication. *Current Opinion in Psychology*, 53, Article 101681. <https://doi.org/10.1016/j.copsy.2023.101681>
- Booton, S. A., Hodgkiss, A., & Murphy, V. A. (2021). The impact of mobile application features on children's language and literacy learning: A systematic review. *Computer Assisted Language Learning*, 36(3), 400-429. <https://doi.org/10.1080/09588221.2021.1930057>
- Brown, H. D. (2006). *Principles of language learning and teaching* (5th ed.). Pearson Education.
- Creswell, J. W. (2013). *Qualitative Inquiry & Research Design: Choosing Among Five Approaches* (3rd ed.).
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications, Inc.
- Demekash, A. M., Degefu, H. W., & Woldeab, T. A. (2024). Secondary school EFL teachers' awareness for formative assessment for effective learning. *Heliyon*. <https://doi.org/10.1016/j.heliyon.2024.e37793>
- Gafni, R., Achituv, D. B., & Rachmani, G. J. (2017). Learning foreign languages using mobile applications. *Journal of Information Technology Education: Research*, 16, 301-317. Retrieved from <http://www.informingscience.org/Publications/3855>
- Hao, Y., Lee, K. S., Chen, S.-T., & Sim, S. C. (2019). An evaluative study of a mobile application for middle school students struggling with English vocabulary learning. *Computers in Human Behavior*, 95, 208-216. <https://doi.org/10.1016/j.chb.2018.10.013>

- Klimova, B. (2021). Evaluating impact of mobile applications on EFL university learners' vocabulary learning - A review study. *Procedia Computer Science*, 184, 859–864. <https://doi.org/10.1016/j.procs.2021.03.108>
- Kluger, A. N., & Mizrahi, M. (2023). Defining listening: Can we get rid of the adjectives? *Current Opinion in Psychology*, 52, Article 101639. <https://doi.org/10.1016/j.copsy.2023.101639>
- Laghari, Z. P., Kazi, H., & Nizamani, M. A. (2017). Mobile learning application development for improvement of English listening comprehension in rural primary school students of grade 1, 2 and 3 of Pakistan. *International Journal of Advanced Computer Science and Applications*, 8(8), 229–235. <https://doi.org/10.14569/IJACSA.2017.080830>
- Lavidas, K., Katsidima, M. A., Theodoratou, S., Komis, V., & Nikolopoulou, K. (2021). Preschool teachers' perceptions about TPACK in Greek educational context. *Journal of Computers in Education*. <https://doi.org/10.1007/s40692-021-00184-x>
- Lu, Y., & Xiong, T. (2023). The attitudes of high school students and teachers toward mobile apps for learning English: A Q methodology study. *Social Sciences & Humanities Open*, 8(1), 100555. <https://doi.org/10.1016/j.ssaho.2023.100555>
- Mahalingappa, L., Zong, J., & Polat, N. (2024). The impact of captioning and playback speed on listening comprehension of multilingual English learners at varying proficiency levels. *System*, 120, 103192. <https://doi.org/10.1016/j.system.2023.103192>
- 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>
- Poláková, P. (2022). Use of a mobile learning application in the process of foreign vocabulary learning. *Procedia Computer Science*, 207, 64–70. <https://doi.org/10.1016/j.procs.2022.09.038>
- Rost, M. (2011). *Teaching and researching listening* (2nd ed.). Pearson Education Limited.
- Shamim, M. R. H., Jeng, A. M., & Raihan, M. A. (2024). University teachers' perceptions of ICT-based teaching to construct knowledge for effective classroom interaction in the context of TPACK model. *Heliyon*, e28577. <https://doi.org/10.1016/j.heliyon.2024.e28577>
- The TESOL Encyclopedia of English Language Teaching. (2024). Edited by John I. Liontas. John Wiley & Sons, Inc. <https://doi.org/10.1002/9781118784235.eelt1053>

- Vaiopoulou, J., Ntziachristou, A., Antonopoulou, E., Papagiannopoulou, T., Stamovlasis, D., & Kalogiannakis, M. (2023). Teachers' perceptions of educational apps use: Psychometric properties of a new instrument (PEAU-t), validation, and measurement invariance. *Computers in Human Behavior Reports*, 12, 100325. <https://doi.org/10.1016/j.chbr.2023.100325>
- Xu, S., & Zhu, S. (2020). Factors influencing K-12 teachers' intention to adopt mobile devices in teaching. *Computers in the Schools: Interdisciplinary Journal of Practice, Theory, and Applied Research*, 37(4), 292-309. <https://doi.org/10.1080/07380569.2020.1830257>
- Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Sage.