

## **MALLing YOUR WAY TO PERFECT PRONUNCIATION: A SYSTEMATIC REVIEW (2020-2024)**

**Nadrotul Muslimah** \*<sup>1</sup>

*UIN Sultan Maulana Hasanuddin Banten*  
Serang, Banten, Indonesia  
[232623105.nadrotul@uinbanten.ac.id](mailto:232623105.nadrotul@uinbanten.ac.id)

**Nafan Tarihoran**

*UIN Sultan Maulana Hasanuddin Banten*  
Serang, Banten, Indonesia  
[nafan.tarihoran@uinbanten.ac.id](mailto:nafan.tarihoran@uinbanten.ac.id)

### **Abstract**

In industrial technology 4.0, Mobile Assisted Language Learning (MALL) has positively impacted the teaching and learning process, particularly in pronunciation skills. Thus, this systematic review identifies the trends of technological innovations, and pedagogical approaches of Mobile Assisted Language Learning MALL in teaching pronunciation from a diverse range of studies and examines the effectiveness of Mobile Assisted Language Learning (MALL) in teaching pronunciation. Using three databases, Mendeley, ScienceDirect, and Eric, 5 articles were extracted out of 399, from 2020-2024, with exclusion and inclusion criteria considered. The analysis highlights the benefits of Mobile Assisted Language Learning MALL, such as increased accessibility, personalized feedback, and interactive learning experiences. Next, the finding implies that Mobile Assisted Language Learning MALL teaching pronunciation can positively impact students' pronunciation skills. Besides, it also influences students' interest in the teaching-learning process, which tends to students' creativity, since it can save time, energy, and money.

**Keywords:** Mobile Assisted Language Learning (MALL), language learning, pronunciation

### **INTRODUCTION**

The ability to speak is the main concern in communication. Accurate pronunciation locks as a crucial factor to have effective communication. While people communicate with others with good pronunciation, it can ease others to understand the information is conveyed. Thus, pronunciation is the first language skill aspect to be mastered. This is also strengthened by several researchers who stated pronunciation plays a vital role in language learning communication (Abdalla et al., 2020; Tejedor-García & Escudero-Mancebo, 2020). In the last three decades, pronunciation has affected not only communication, but also

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<sup>1</sup> Correspondence author.

language learning process, research, and theoretical discussions (Pennington, 2021b). Traditionally, the language learning process uses audiobooks, recordings, and classroom instruction. However, at present, the emergence of mobile learning is rapidly becoming a trend in language learning, particularly in learning pronunciation.

Pronunciation is a central aspect of communication and creates the first impression of people's language skill (Tergujeff, 2013). Pronunciation plays a vital role in our lives, in a way that when people speak, the first focus of the listener will be on pronunciation (Abdalla et al., 2020; Pennington, 2021). Hence, pronunciation merits one of the serious considerations in teaching. This is because pronunciation is quite challenging to be taught (Aratusa, 2022). Some teachers think pronunciation is a difficult field in the teaching process (Abdalla et al., 2020). Some researchers also argue that pronunciation is a big challenge for both teacher and student since it was neglected as an important field of communication (Azane, 2021; Tejedor-garcía & Escudero-mancebo, 2020). Therefore, knowing pronunciation components is a must to avoid misunderstandings in communication. There are five components in pronunciation; phonemes, stress, intonation, rhythm, and connected speech.

The smallest unit sound distinguishing one word from others and representing a speech or different sound is phonemes (Hemaida Mohamed, 2021). In pronunciation, every unit sound has a different meaning, for example between bat/b/ and pat /p/. The next component to be learned is stress. Stress is emphasizing the word or syllable in pronunciation that can affect meaning, now that different stress has different meanings. Stress occurs in a word or phrase and has the acute symbol (´) in the syllable sound (Ambalegin & Afriana, 2023). Intonation is the next component of pronunciation. Pitch variation in speaking refers to intonation. Intonation consists of two, namely rising; not understanding something and trying to ask, then falling; only wanting to make small talk (Larassati et al., 2022). Rhythm is the pattern of sound and silence in speech in which the syllable becomes the basic unit of rhythm (Lasi, 2020). Moreover, connected speech is the last of the components of pronunciation. This occurs naturally and blends often between words and sounds together.

With the arrival of technology, it can alter all things in life, and learning pronunciation is affected as well. In industrial technology 4.0, Mobile Assisted Language Learning (MALL) has contributed a positive impact overwhelmingly on the teaching and learning process (Burston & Giannakou, 2022). It can be argued that mobile learning supports all teachers' and students' needs. Nevertheless, Mobile Assisted Language Learning (MALL) also presents some challenges to be used due to several limitations such as media and networking (Aratusa, 2022). Besides, lack of information becomes one of the challenges in getting and using information about mobile learning (Adara, 2020). Meanwhile, at the present, it is easy because the technology influences all life aspects. Many studies also

showed that the use of mobile devices in the learning process provides advantages and is more effective in a language learning environment (Krishna, 2019).

Furthermore, there have been some studies that stated that various Mobile Assisted Language Learning (MALL) can be integrated into learning activities in the classroom (Li, 2023; Nafa, 2020; Siraj & Zain, 2021).

- Mobile device and application

In the last decade, mobile device and application development associated with the parallel development of mobile internet. The mobile device is now a common device that can be utilized for all aspects of life and particularly helps the enhancement of learning activity (Biswas et al., 2020). Some applications might be used as tools to support learning classroom. It also can reflect remote teaching tactics for teachers and as learning strategies for the students in learning. The mobile application also can provide users with many educational service functions for teachers, students, schools, or the environment (Tu, 2021).

- Digital and social media and communication tools

Modern trend dictates the need in education to use new sources in the learning process and come in various shapes and sizes, in particular for the English language and social media can be development tools for mastering English capability (Puzanov et al., 2022; Tarihoran et al., 2022). Digital and social media play a vital role in transforming the teaching and learning process for teachers and student (Bonfield et al., 2020; Noori et al., 2022; Ramadhanti et al., 2023). Since the transformation of 4.0, the use of social media has been widely used for supporting learning strategies due to the positive impact considered.

- Game-based learning

Owing to the transformation of industrial technology, many aspects are from entertaining to playing games and this is relevant to students in enhancing their ability (Hu et al., 2022). From this case, games are now designed as learning media in the classroom (Timothy et al., 2020). Currently, there is no reason for teachers and students in teaching and learning readiness. Various game-based learning is made to be used as support tools in the learning process.

Mobile Assisted Language Learning (MALL) encompasses a new approach to support learning activity. Mobile phones, tablets, applications, and other tools allow students to learn anywhere and everywhere they want. The flexibility of Mobile Assisted Language Learning (MALL) can attract both academics and practitioners as an important element in language learning (Wang & Hsu, 2020). This tool can be an interactive tool to support and improve students' pronunciation skills. Previous studies have also noticed that MALL in

teaching learning which utilizes mobile devices, such as applications will have a great effect on students' ability and interest. The emergence of mobile applications opens new insights, experiences, and techniques in education.

This article explores the effect of pronunciation using Mobile Assisted Language Learning (MALL) by examining a systematic review. By analyzing the findings, the researcher aims to answer critical questions as follows: 1) Does Mobile Assisted Language Learning (MALL) improve pronunciation? 2) What are the types of tools and how significantly can improve pronunciation?

## **METHODS**

The systematic review adheres to the method of seeking and identifying the topic to reduce the bias possibility on the findings of the review. The systematic review allows the relevant evidence and data summarizing from the previous studies on the specific topic and interest (Mengist & Soromessa, 2020). According to Paul, The systematic review avoids duplicative research, guides the research groundwork, and supports the strong novelty of the research (Paul et al., 2021). The process of the systematic review consists of four; identification, screening eligibility, and inclusion. Owing to the comprehensiveness and adaptability of the other studies, the researcher conducts the systematic reviews as follows.

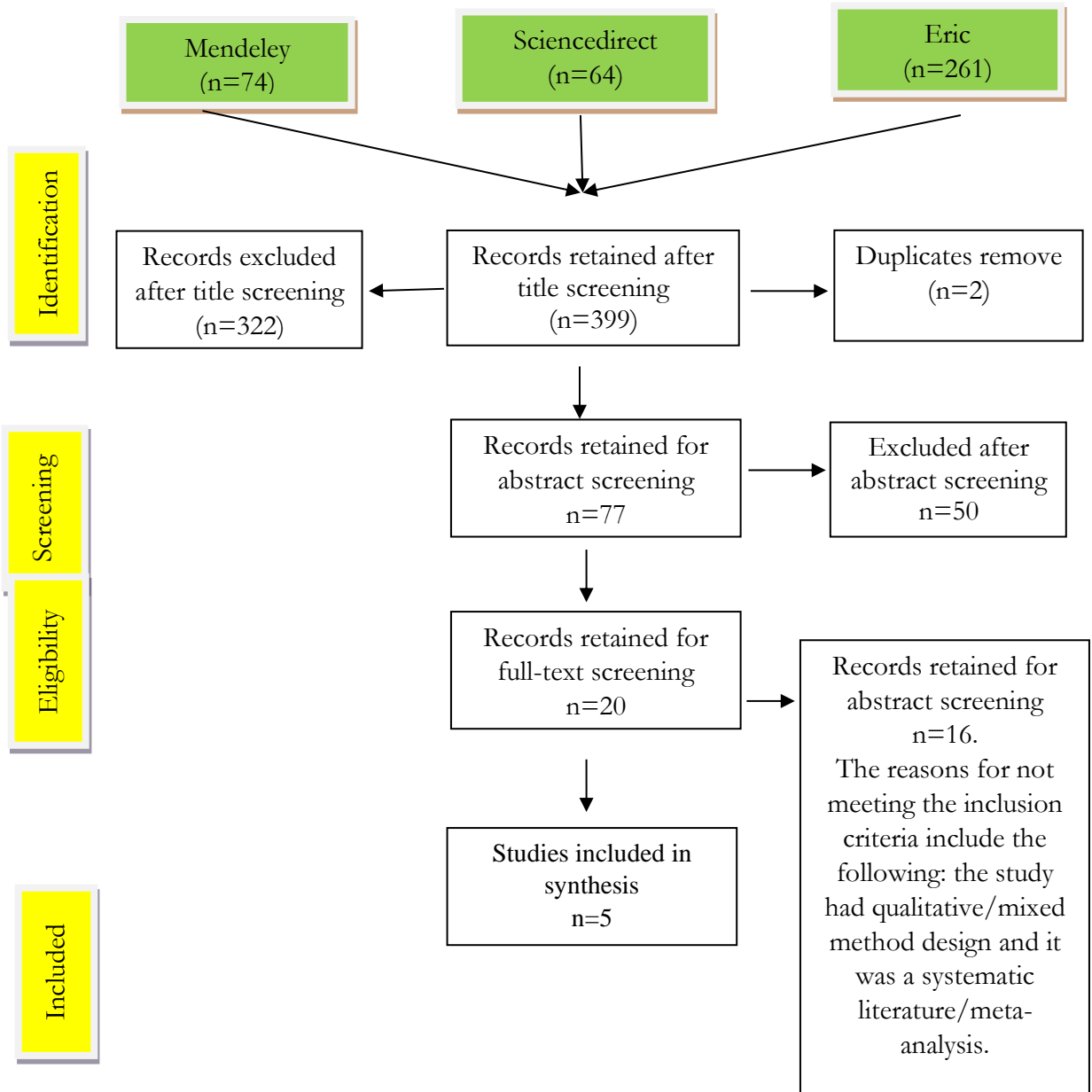


Figure 1. PRISMA systematic review

The first literature review step is the identification process. Table 1 displays the search keywords for each data and the researcher meticulously chose three databases suitable to this research. Those were ScienceDirect, Mandeley, and Eric.

**Table 1.** Identification (Searching the keywords)

Database	Search Keywords
Mendeley	"Pronunciation and MALL" OR "Mobile Assisted Language Learning in Pronunciation" OR
ScienceDirect	"Learning Pronunciation using MALL" OR "The
Eric	Effect of MALL to Pronunciation Skill"

After having the identification of data, the researcher conducted the screening of the data. In this process, screening the inclusion and exclusion criteria occurred. The first screening was removing 2 duplicate articles and 322 titles, not related topics, and 77 were retained for abstract screening. Upon removing the duplicates and the titles, 20 articles were recorded for full-text screening and screened as shown in Table 2.

**Table 2.** Screening of inclusion and exclusion criteria

Inclusion Criteria	Exclusion Criteria
Studies conducted in the last 5 years (2020-2024)	Studies conducted before 2020
Articles from journals The method should be quantitative	The method was qualitative and mixed
The text was written in English and related to the topic	The text was not written in English and was not related to the topic

## RESULT AND DISCUSSION

As a result of the literature review process, each article shows that Mobile Assisted Language Learning (MALL) has a positive impact on pronunciation skills. This means Mobile Assisted Language Learning (MALL) significantly contributes to enhancing students' pronunciation skills (Miqawati, 2020). It can be seen from the articles depicted in Table 3. On the other hand, Mobile Assisted Language Learning (MALL) also can help students enhance their skills not only in pronunciation but also in other language learning skills (Amin, 2024). Moreover, the finding highlights several types of mobile learning used in learning

pronunciation, such as pronunciation applications by KEPHAM, mobile games, online English film dubbing activities, and ELSA applications.

**Table 3.** Summary of the selected articles

<b>Author (s)/Country</b>	<b>Method/Samples</b>	<b>Mobile Device</b>	<b>Findings</b>
(Gurova et al., 2020) Ukraine	Experimental design 50 undergraduate students	Mobile Learning	Teaching English phonetic and English phonetic competence can be increased by applying mobile learning as well as encouraging the students to self-development and creative work.
(Ila Amalia, 2020) Indonesia	Experimental design 52 junior high school students	Pronunciation by KEHAM	KEPHAM application can be one of the effective tools in improving students' pronunciation skills.
(Berry, 2021) South Korea	Experimental design 43 students in an undergraduate program.	The Mobile Game (Spaceteam)	Mobile gameplay can be considered an alternative resource in EFL classrooms as it can have a significant impact on students' pronunciation skills.
(Wei et al., 2022) China	Experimental design Random sampling	Online English Film Dubbing activity	English pronunciation is positively influenced by using online English film dubbing activities in students' intelligibility and comprehensibility.
(Susanto et al., 2024) Indonesia	Experimental design 34 junior high school students	Dictionary Speech Assistant in ELSA Speak Application	Involving a Dictionary Speech Assistant can affect not only students' pronunciation ability but also students' interest in the learning process.

Next, the researcher also looked into pronunciation as an important skill to be mastered and quite challenging, so those applications are suitable for long learning activities. Based on the limitation of research question focuses the researcher argues that Mobile Assisted Language Learning (MALL) has a positive impact on enhancing students' pronunciation skills and learning with mobile learning also attracts greater attention to students since it can save time, energy, and money. Meanwhile, this is also seen from the results of the network of visualization analysis (figure 2) which several terms have also been discussed in this field. The network visualization showed that many scholars research this field more and more.

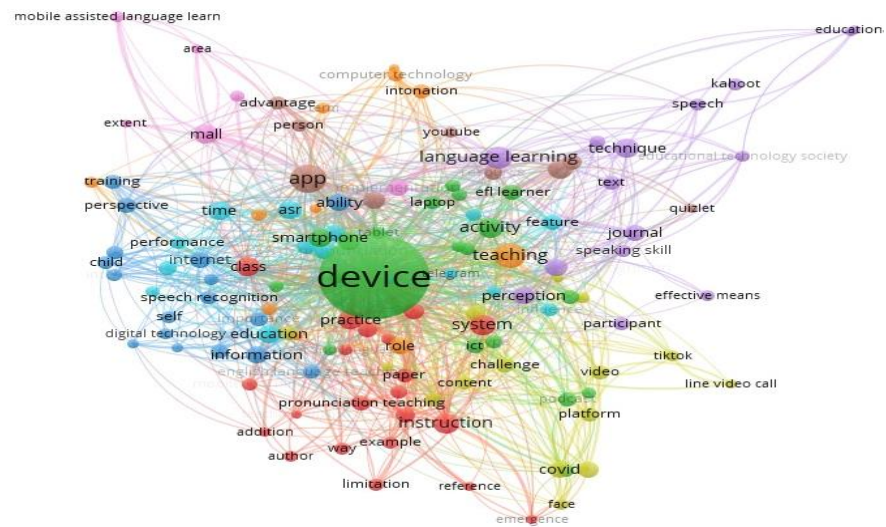


Figure 2. The network visualization

This field also has been a trend in the last five years. The current research trend is shown in the analysis of overlay visualization done on VOSviewer, as shown in Figures 3 and 4.





Mobile Assisted Language Learning (MALL) has a positive impact on enhancing students' pronunciation skills, and learning with mobile learning also attracts greater attention to students since it can save time, energy, and money.

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