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IMPROVING STUDENTS' PRONUNCIATION USING WORDUP APPLICATION : A SYISTEMATIC LITERATURE REVIEW

MENINGKATKAN PENGUCAPAN SISWA MENGGUNAKAN APLIKASI WORDUP: TINJAUAN LITERATUR SISTEMATIK

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Abstrak

Penelitian ini bertujuan untuk menguji efektivitas aplikasi WordUp dalam meningkatkan keterampilan pengucapan siswa dalam lingkungan Pembelajaran Bahasa Berbantuan Seluler (MALL). Pesatnya pertumbuhan perangkat pembelajaran digital telah mendorong integrasi aplikasi seluler untuk memberikan paparan autentik, latihan individual, dan umpan balik langsung bagi pembelajar Bahasa Inggris sebagai Bahasa Asing (EFL). Menggunakan metode Tinjauan Pustaka Sistematis (SLR), penelitian ini menganalisis studi yang diterbitkan antara tahun 2020 dan 2025 dari basis data seperti Google Scholar, ERIC, ScienceDirect, dan Mendeley. Sebanyak 690 artikel awalnya diidentifikasi, dan 6 studi memenuhi kriteria inklusi. Temuan menunjukkan bahwa WordUp secara efektif mendukung penguasaan kosakata sekaligus menawarkan manfaat tidak langsung namun bermakna bagi peningkatan pengucapan melalui model audio, contoh kontekstual, dan fitur pengulangan spasi. Meskipun aplikasi ini terutama dirancang untuk pembelajaran kosakata, siswa melaporkan peningkatan paparan terhadap masukan pengucapan yang akurat dan peningkatan kejelasan dalam produksi lisan. Namun, beberapa keterbatasan diidentifikasi, termasuk kurangnya penilaian pengucapan yang komprehensif dan cakupan ekspresi multi-kata yang terbatas. Secara keseluruhan, WordUp adalah alat bantu tambahan yang berharga yang meningkatkan motivasi belajar siswa, mendukung pembelajaran mandiri, dan berkontribusi positif pada pengembangan pengucapan, terutama bila diintegrasikan dengan strategi pembelajaran yang lebih luas yang berfokus pada berbicara.

Kata kunci: Teknologi Pendidikan; Pengucapan; Aplikasi WordUp

Abstract

This study aims to examine the effectiveness of the WordUp application in improving students' pronunciation skills within Mobile-Assisted Language Learning (MALL) environments. The rapid growth of digital learning tools has encouraged the integration of mobile applications to provide authentic exposure, individualized practice, and immediate feedback for English as a Foreign Language (EFL) learners. Using a Systematic Literature Review (SLR) method, this research analyzed studies published between 2020 and 2025 from databases such as Google Scholar, ERIC, ScienceDirect, and Mendeley. A total of 690 articles were initially identified, and 6 studies met the inclusion criteria. The findings indicate that WordUp

effectively supports vocabulary mastery while offering indirect yet meaningful benefits for pronunciation improvement through audio models, contextual examples, and spaced-repetition features. Although the application is primarily designed for vocabulary learning, students reported increased exposure to accurate pronunciation input and improved clarity in spoken production. However, several limitations were identified, including the lack of comprehensive pronunciation assessment and limited multi-word expression coverage. Overall, WordUp is a valuable supplementary tool that enhances learner motivation, supports autonomous learning, and contributes positively to pronunciation development, especially when integrated with broader speaking-focused instructional strategies.

Keywords: Educational Technology; Prounnunciation; WordUp Application

INTRODUCTION

Speaking is a useful language ability that allows speakers and listeners to engage in oral communication to transfer and share information and to develop long-term relationships (Kashinathan & Abdul Aziz, 2021). Speaking is a valuable skill that helps students communicate thoughts, negotiate meaning, and engage in social and intellectual relationships. Despite its importance, many students still struggle to improve their speaking skills, especially in EFL (English as a Foreign Language) environments. These difficulties often stem from a lack of opportunities for meaningful practice, a lack of confidence, a limited vocabulary, and limited exposure to authentic communication.

Pronunciation is a crucial component of language learning, as it greatly affects learners' communication effectiveness and their overall mastery of the language (Caleffi, 2023). Both suprasegmental elements such as stress, rhythm, and intonation, and segmental elements such as vowel and consonant formation, present challenges for many students. These challenges often interfere with students' oral communication and lower their speaking confidence (Rahmon, 2024). Digital tools are increasingly used to support language learning as educational technology advances rapidly. This technology provides an individualized and interactive learning experience that is difficult to achieve through traditional classroom instruction alone. Although a number of academics have shown its efficacy as a pedagogical intervention, using mobile technology for pronunciation instruction is not always simple and trouble-free (Metruk, 2024).

In this context, the WordUp application has emerged as a popular vocabulary learning platform that provides audio models, pronunciation guidance, and examples of real-life usage (Maenza & Gajić, 2024). In this era of digitalization, technological tools are considered a way to help students improve their language skills, such as reading, speaking, listening, and writing. Many technologies, such as applications, can improve our skills. An example of such technology is the WordUp application, created by entrepreneurs Paymon Khamooshi and Somayeh Aghnia (Krismonika et al., 2021). As mobile-assisted language learning (MALL) becomes more widespread, researchers have begun to investigate how applications like WordUp contribute not only to vocabulary development but also to pronunciation improvement. Previous studies have shown that technology-enhanced learning can facilitate repeated exposure, allow learners to practice at their own pace, and offer instant feedback, all of which are essential for pronunciation mastery (Jingjing & Andi, 2024). However, although various applications have been examined in

the literature, there is still limited systematic evidence on how WordUp specifically influences pronunciation skills.

Previous research by (Muthia, 2025; Topal, 2024) examined the effectiveness of the WordUp mobile application in supporting English vocabulary learning. The study found that WordUp significantly enhances learners' vocabulary development by providing high-frequency and high-utility word lists, personalised learning pathways, and spaced-repetition review cycles. The app offers rich and authentic input through videos, movies, music clips, quotes, and news texts, allowing learners to encounter target vocabulary in meaningful contexts (Syed Farhat Jahara, 2021). Gamified features such as multiple-choice games, gap fill tasks, spelling challenges, and image-based quizzes were also reported to increase learners' motivation and engagement. Pedagogically, the application aligns with the Lexical Approach, the Direct Method, the Audio-Lingual Method, and micro-learning principles, making it suitable for autonomous learners seeking flexible and contextualised vocabulary practice. However, the study also noted several limitations, including the lack of multi-word expressions (e.g., collocations and phrasal verbs), insufficient pronunciation of assessment, and occasional technical issues with video and news features. Overall, WordUp was found to be an innovative and effective tool for mobile-assisted vocabulary learning, though improvements in feedback quality and the integration of multi-word items were recommended for future development.

Research questions

R1: How is WordUp used in speaking/pronunciation learning based on previous studies?
R2: Can the use of WordUp improve students' speaking/pronunciation skills?

LITERATURE REVIEW

Educational Technology

Educational technology is the systematic and organized process of applying modern technology to improve the quality of education (efficiency, optimality, accuracy, etc.). It is a systematic way of conceptualizing the implementation and evaluation of educational processes, namely learning and teaching. It encompasses teaching materials, methods, and work organization, as well as relationships, namely, student behavior in the classroom. According to (Godsk & Møller, 2025), the use of digital educational technology is not a new phenomenon in higher education, gaining traction in the early '70s in the form of telecourses and in the '80s in the form of computer-assisted and online learning.

According (Scheffel & Wirth, 2022). Educational technology refers to the use of tools, technologies, processes, procedures, resources, and strategies to improve learning experiences. Educational technology is a process that involves many factors, such as the teacher, designer, students, content, instructional technology tools, classroom, evaluation, and learning environment which provide a good simulation for students (Buhamad, 2024). Educational technology refers to the use of devices and media applications to support learning processes, including both individual and collaborative learning environments (Dennis, 2024).

Developing speaking skills is a crucial component of language learning, and the introduction of various technological tools has increased the efficiency and accessibility of this process for students. More interactive and adaptive learning techniques are available through various mobile apps, language-learning programs, online resources, and even virtual reality technology (Gilmer Javier Ordoñez Procel, Martha Lucia Freire Medina & Sanchez, 2024). With the use of technology, language learning has become more dynamic and diverse, giving students the opportunity to practice speaking outside of the classroom whenever they need it. Today, many students use educational technology to practice speaking because it not only helps them learn the basics of a language but also gives them the opportunity to practice speaking independently, receive immediate feedback, and boost their confidence (Semercioğlu & Akçay, 2025).

Improving Pronunciation

Pronunciation is one of the important skills in Engish language teaching that affects students' ability, related to the production and reception of sounds that differ through speech, as part of language interpretation (Stevani & Ginting, 2022). English pronunciation is important because mispronouncing vowels or consonants can result in incorrect interpretations. must be able to differentiate between the various pronunciations. The development of speaking, listening, and writing skills in the English language depends on the fundamental skill of pronunciation. You will be able to pronounce words correctly if you study pronunciation.

However, according to Shufi & Andina Nurhidayah (2024), pronunciation is among the most challenging aspects for English learners, requiring teachers guidance to overcome. They recommend that educators actively seek out media and technology to help address students' pronunciation difficulties. Various media resources are available to help students enhance their English pronunciation.

There is significant promise in using AI for pronunciation education, especially in creating AI-powered pronunciation tutors. AI algorithms are used by instructors to assess students' pronunciation and give timely feedback on pronunciation errors (Mohammadkarimi, 2022). In the society 4.0 era, learning resources do not only come from teachers and books, but digital technology can also be used as a learning resourcer. Technology plays an important role in facilitating communication with classmates and, teachers and also as a tool to promote the teaching and learning process. Pronunciation software is a way in which a specific language, word, or sound is spoken through software as a medium that combines all commands for information processing and serves as an interactive medium (Marlinda & Huda, 2024). The deployment of any pronunciation application helps students improve their pronunciation by listening to recorded audio, reading phonetic symbols, and recording their utterances in the application. The study's (Suseno, 2023) findings indicate that using seven different pronunciation applications, such as Praat, Orai, Elsa, Tophonetics, EFP, English Pronunciation, and Mall, improves students' speaking, listening, and pronunciation abilities. Furthermore, incorporating pronunciation applications into the collected articles benefits students' speaking, reading, and pronunciation skills. Their interest in studying English is also sparked.

WordUp Application

According (Vaseghi et al., 2024) Word Up is an innovative mobile app designed to improve English comprehension by introducing new words and enhancing language skills. Unlike other language-learning apps, Word Up aims to combine cutting-edge ideas with the latest digital technology to address common language challenges faced by people around the world. The app's creators have a philanthropic vision, striving to help anyone who wants to develop a productive, receptive understanding of English at no cost, using modern, innovative methods.

Word Up is an innovative mobile app that helps users learn English vocabulary and improve their comprehension. It differs from other language learning apps by combining creative ideas with modern technology to address language challenges worldwide. Using the WordUp application is very easy and doesn't take up too much internet. This application has a fairly standard capacity for use on cellphones/smartphones, and of course, the WordUp application is equipped with Artificial Intelligence, which can help users to learn more effectively. How to use it is very simple, just download the application, log in using email or via Google, choose your English level, set the right time when you want to learn vocabulary everywhere and anytime, and don't forget to choose what you want to learn, such as writing, speaking, listening, and also pronunciation (Melati et al., 2024). Word Up's unique feature is its ability to evaluate all English vocabulary for usefulness using Computer-Assisted Corpus Analysis (CAA), enabling users to learn more effectively by focusing on the most important terms. The program also scans millions of quotes, insights, and other engaging content to provide relevant, entertaining, and easy-to-understand examples of word usage. The goal is for users to enjoy the learning process by applying it to real-world situations.

Word Up adheres to the "I remember forever" principle. Once a user learns a word, the app will remember it the next day. If the user forgets it, the app will show an explanation, example, or translation to help them remember. This learning cycle will continue until the user presses the "I remember" button. After that, the term will reappear after three days, seven days, one month, three months, and one year. If the user remembers the word after 1 year, Word Up considers it mastered for life. Additionally, users can practice pronunciation with options for both British and American English (Maenza & Gajić, 2024).

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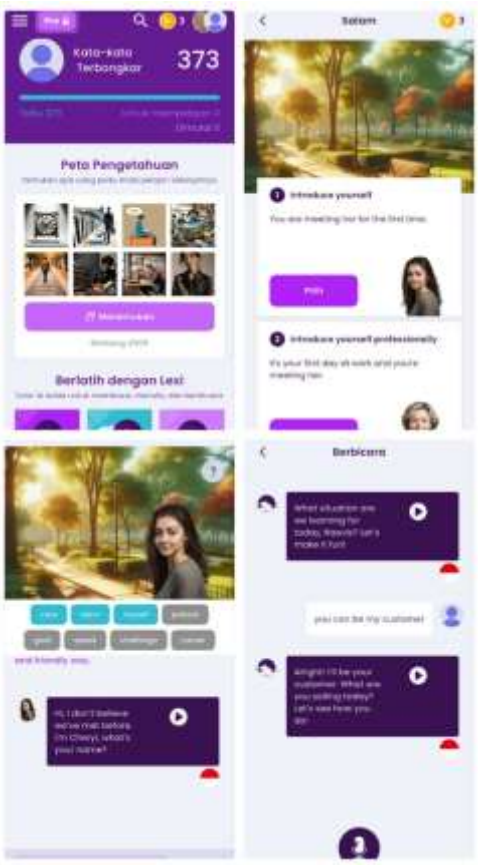
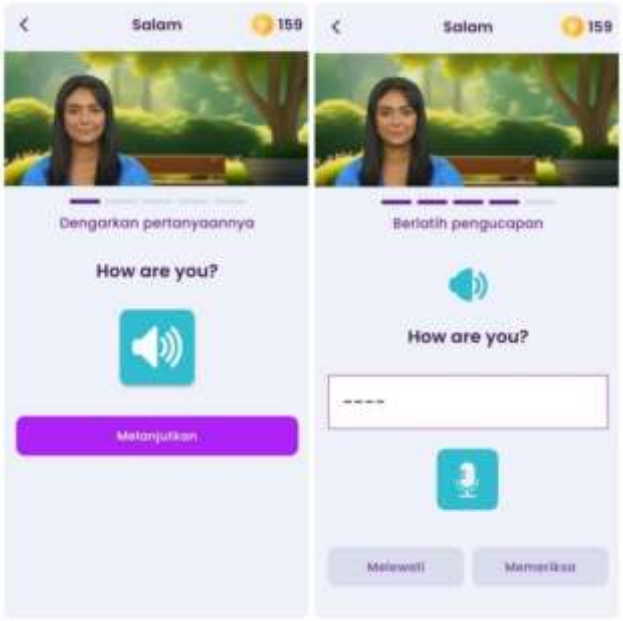


Picture 1.



Picture 2.

METHODS

This study employs the Systematic Literature Review (SLR) method to investigate the impact of using the WordUp application on improving the speaking skills of English as a Foreign Language (EFL) learners. The SLR method was chosen because it offers a comprehensive synthesis of previous research, revealing trends, key findings, and gaps in studies related to the use of digital learning media for speaking skill development.

Description of The Sample

This study follows the Preferred Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines in its search strategy and uses keywords determined by the author based on the title of the systematic literature review. Keywords used in the search include improving pronunciation, WordUp application, educational technology. Searches were conducted across several academic journal databases, including Google Scholar, ERIC, ScienceDirect, Mendeley. The study covers a specific time period, i.e., articles published between January 1, 2020, and September 30, 2025, that meet the inclusion criteria.

Procedure

Using a list of keywords created by the authors, a reviewer (D.N, N.K, F.F) conducted the initial search. To ensure the relevance of the articles found in the initial search to this study, the following selection process was used: a) reading titles: If the title appeared relevant, citations were recorded using specialized software (Mendeley Desktop 1.19.8), and duplicates were found and removed using Mendeley Tools to ensure a single copy; b) reading abstracts: Articles were removed from the study if the abstract did not provide sufficient information to meet the inclusion criteria; c) reading the articles in their entirety: assessing and reviewing selected articles to decide which ones should be included in the systematic review. Studies were eliminated if they did not meet the exclusion criteria.

Study Selection Criteria

Here is a new paraphrase that has been adjusted to the criteria you provided:Adjusted paraphrase:This research review focuses on recent empirical studies with the following inclusion criteria: (1) articles found through Google Scholar, ScienceDirect, ERIC, and Mendeley; (2) articles published between 2021-2025; (3) research involving high school students; (4) articles in English; and (5) original articles available in full text format.Meanwhile, the exclusion criteria include: (1) studies involving university students or students outside the high school level; (2) studies that do not highlight variables relevant to the topic of study; and (3) articles in the form of literature reviews or meta-analyses.

RESULT AND DISCUSSION

Based on the results of a systematic search on four online research platforms, only a few articles were relevant to the topic of improving pronunciation with the WordUp app. The search accross all online research platforms yielded 690 articles, identified through a combined screening process. After systematically filtering the articles, the author obtained 6 articles that met the criteria. The research results from each platform are described in Table 1. This report complies with the Preferred Items for Systematic Review and Meta-analysis (PRISMA) reporting guidelines.

Figure 1. PRISMA Flowchart of the selection process.

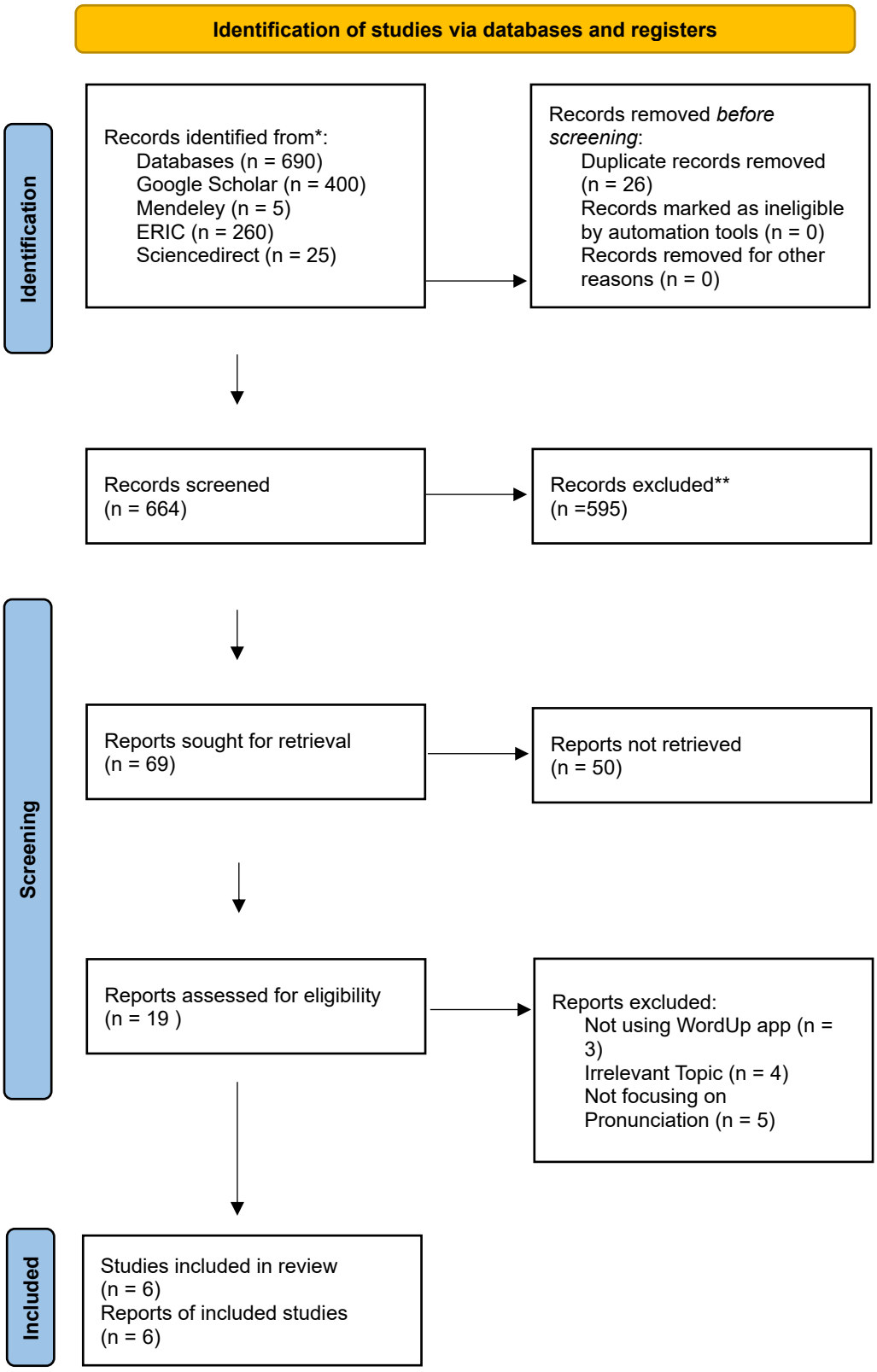


Table 1. Summary of Findings from Selected Final Studies

No	Authors/Country/ Year	Main Characteristic	Study Design	Measuring	Findings
1.	Neda M. Maenza, Tijana Gajić (2024), Serbia	WordUp mobile application to enhance English vocabulary. It employs a mixed-method approach combining survey and focus group data.	• Quantitative: Online survey with 62 students • Qualitative: Focus group with 6 participants	• Online questionnaire (multiple-choice + open-ended items) • Focus group interview • Descriptive statistics • Content analysis	• Over 70% of students use mobile apps for language learning. • 65% believe WordUp significantly improved their vocabulary. • Most helpful features: translation, learning in context, dictionary definition, visual aids, and the "remember forever" spaced repetition system. • 90% want mobile apps like WordUp integrated into the curriculum. • Reported drawbacks: technical issues, lack of communication features, English-only focus. • Overall, WordUp is seen as effective, engaging, user-friendly, and more useful than traditional dictionaries because it provides contextual usage.
2.	Nushi, Aghaei & Roshanbin (2021), Iran	A review article analyzing WordUp's features, advantages, and limitations; emphasizes authentic input, frequency-based word lists, and spaced repetition.	Descriptive Review	Evaluation of app features; theoretical framework; feedback from 12 learners (elementary & intermediate).	WordUp provides rich authentic exposure and increases motivation. However, some examples are too difficult, not suitable for beginners, and lacks productive vocabulary practice.
3.	Topal (2024), Turkey	Technology review evaluating WordUp through Kohnke & Moorhouse's (2022)	Technology & Pedagogical Analysis	Analysis of app features, pedagogical methodology, gamification, and	WordUp supports contextualized vocabulary learning and gamified engagement. Weaknesses: lacks

		framework; focuses on MALL, gamification, contextual learning, and personalization.		technical functionality.	multi-word units, minor technical issues, and limited pronunciation assessment.
4.	Vaseghi, Vahedi & Lahiji (2024), Iran	Experimental study testing WordUp's effectiveness on EFL learners' vocabulary learning. 60 upper-intermediate students; 8 treatment sessions.	Quasi-experimental (pre-test / post-test; experimental vs control)	Oxford Placement Test; Researcher-made vocabulary pre/post tests.	WordUp produced significant improvement in vocabulary knowledge compared to traditional methods. Supports vocabulary retention and comprehension.
5.	Gajić T., Maenza N. (2022) Serbia	Attitudes and perceptions of university students toward popular language learning apps (Duolingo, HelloTalk, WordUp) for learning foreign languages, primarily English.	Mixed-methods: Qualitative research (focus group) and Quantitative research (online questionnaire).	Focus group to determine views on usefulness. Online questionnaire to analyze overall perceptions of mobile applications in English language learning.	Innovative methods like mobile apps are captivating for students. Students highly value visual and engaging materials. Duolingo is best for vocabulary and grammar; HelloTalk for speaking; and WordUp for new words/dictionary. A combination of all three apps is optimal.
6.	Bamunusingha Arachchige, W. C. (2025) Sri Lanka	Study of self-directed Mobile-Assisted Language Learning (MALL) for Spoken English from the perspective of Sri Lankan University students. Examines the frequency of MALL strategies and the influence of gender, age, and university type.	Quantitative methodology using an online survey.	Two scales: A 7-point frequency scale for MALL strategy/app usage, and a 4-point Likert-type scale for perceived benefits.	The most used MALL strategies were using the internet and watching movies. Preferred apps for speaking skills included YouTube, WhatsApp, Podcasts, and MAVL applications. Females showed higher engagement. Gen Z (younger) prefer entertainment (YouTube/movies), while Gen Y (older) tend to use the internet.

The results of this systematic literature review indicate that students' pronunciation abilities can be improved through Mobile-Assisted Language Learning (MALL), particularly with the use of the WordUp application. WordUp exposes learners to accurate pronunciation models, repeated listening opportunities, and interactive practice features, all of which play an essential role in

improving pronunciation clarity and accuracy (Topal, 2024). These findings align with the broader development of digital language learning, where mobile applications increasingly provide adaptive, individualized, and learner-centered environments.

Across the six selected studies included in this review, a consistent pattern emerged regarding the role of WordUp in enhancing English language acquisition, especially vocabulary development, pronunciation exposure, and student motivation. Overall, the studies portrayed WordUp as a digital learning tool that integrates authentic input, contextual examples, spaced repetition, and audio models to strengthen learners' understanding of English words. Although designed mainly for vocabulary learning, several findings demonstrated that the pronunciation features such as British and American audio models, also help learners achieve more accurate and clearer pronunciation.

A study by (Maenza & Gajić, 2024) showed that learners highly valued WordUp's contextual learning features, including audiovisual input, translation support, and the spaced-repetition "remember forever" system. More than 65% of students reported improved vocabulary mastery and increased exposure to correct pronunciation models. Similarly, (Nushi et al., 2021)emphasized that WordUp provides rich, authentic examples that increase learner motivation, although some materials may be too advanced for beginners.

Experimental evidence from (Vaseghi et al., 2024) further confirmed WordUp's effectiveness, demonstrating significant gains in vocabulary knowledge after eight intervention sessions. Additionally, (Topal, 2024) highlighted WordUp's strengths in contextualization, gamification, and AI-based personalization while noting that limitations such as the lack of multi-word expressions and minimal pronunciation assessment make the application more effective for vocabulary development than for comprehensive pronunciation mastery.

Two additional studies by (Arachchige, 2025; Gajić & Maenza, 2022) expanded the discussion by examining learners' attitudes toward mobile-assisted language learning. Their findings showed that students prefer visually engaging, user-friendly, and context-rich applications, characteristics strongly reflected in WordUp. Although these studies do not focus specifically on pronunciation, they reinforce WordUp's position as a valuable digital tool when integrated into broader learning environments.

Overall, the synthesis shows that WordUp supports learners' pronunciation exposure, vocabulary development, and motivation through its contextual learning system, audiovisual input, and spaced repetition method. These findings are consistent with core principles of MALL, which emphasize flexibility, repeated exposure, and personalized learning pathways. While WordUp does not consistently produce significant pronunciation gains accross contexts, the aggregated evidence suggests that the app is an effective supplementary tool that enhances vocabulary learning and contributes to pronunciation improvement through continuous audio modeling.

CONCLUSION

The findings of this systematic literature review demonstrate that integrating the WordUp application into Mobile Assisted Language Learning (MALL) environments offers meaningful benefits for EFL learners, particularly in vocabulary acquisition and pronunciation exposure. WordUp's features, such as contextual examples, audio modeling, multimedia feedback, and spaced repetition, effectively enhance learners' engagement, retention, and readiness for speaking tasks.

These outcomes are consistent with modern educational technology principles that prioritize adaptive, learner-centered, and interactive learning experiences.

Although primarily designed as a vocabulary-learning tool, WordUp also provides indirect support for pronunciation improvement through repeated exposure to American and British audio models. However, the platform still lacks comprehensive pronunciation assessments and coverage of multi-word expressions. Future enhancements should therefore focus on strengthening speaking-oriented features to maximize their pedagogical impact. Overall, WordUp serves as a valuable supplementary tool that can support and enrich conventional classroom instruction, especially in contexts with limited exposure to authentic English communication.

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