



# مجلة جامعة الأنبار للعلوم الإنسانية

**مجلة علمية دورية محكمة فصلية**

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جامعة الأنبار-كلية التربية للعلوم الإنسانية

## مدير التحرير

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بسم الله الرحمن الرحيم

### افتتاحية العدد

الحمد لله رب العالمين، والصلاة والسلام على خاتم النبيين سيدنا محمد، وعلى آله وصحبه أجمعين  
وبعد...

نضع بين أيديكم العدد الثالث من مجلتنا (مجلة جامعة الأنبار للعلوم الإنسانية) تلك المجلة الفصلية العلمية الرصينة التي تصدر من كلية التربية للعلوم الإنسانية، تحمل في طياتها ٢٧ بحثاً علمياً يضم كافة تخصصات المجلة ولمختلف الباحثين من داخل جامعة الأنبار، وخارجها من الجامعات العراقية، فضلاً عن بحوث أخرى لباحثين من بلدان عربية مختلفة.

لقد بذل الأساتذة أصحاب هذه البحوث جهداً علمياً متميزاً كان مدعاة لقبول نشرها في مجلتنا بعد أن حكمها محكمين من ذوي الخبرة والاختصاص في مختلف الجامعات العربية والعراقية ليتم إخراجها بهذا الشكل العلمي الباهر، والصورة الطيبة الجميلة، والجوهر العلمي الرصين، فجزى الله الجميع خيراً الجزاء لما أنتجته قرائهم العلمية والثقافية وسطرته أقلامهم لينتفع ببحوث هذه المجلة والذخيرة العلمية المعروضة فيها كل القارئ من باحثين وطلبة ومهتمين.

إن العطاء الثمر من الباحثين والجهد المعطاء من رئيس وأعضاء هيئة التحرير والدعم الكبير من رئاسة جامعتنا، وعمادة كليتنا يحث الخطو بنا للوصول إلى الغاية المرجوة المنشودة في دخول مجلتنا ضمن المستوعبات العالمية للنشر العلمي. لذا وجب التنويه بأننا بصدد التحديث المستمر والمتواصل لشروط النشر وآليته للارتقاء بأعداد مجلتنا والوصول بها إلى مكانة علمية أرقى وأسمى تضاهي المجالات العلمية ذات المستويات المتقدمة، ولتساهم بفاعلية في حركة النشر والبحث العلمي العربي سعياً لتعزيز مكانة البحث العلمي وتوسيع آفاقه في البلدان العربية لأن البحث العلمي كان وما يزال واحداً من عوامل رقي الأمم ومؤشراً على تقدمها... ومن الله التوفيقا

**أ.م.د. فؤاد محمد فريح**

**رئيس هيئة التحرير**

## تعليمات النشر في مجلة جامعة الأنبار للعلوم الإنسانية

- الاجراءات والمواصفات العامة للبحث:
- مجلة جامعة الانبار للعلوم الانسانية، مجلة علمية دورية محكمة، لنشر الأبحاث العلمية في مجال العلوم الانسانية الاتية: التاريخ، والجغرافيا، والعلوم التربوية والنفسية، والاجتماع، والاعلام، والعلوم السياسية، والفلسفة، وتصدر بواقع ٤ اعداد سنوياً.
- يقدم الباحث على الموقع الالكتروني للمجلة <https://juah.uoanbar.edu.iq> وفق المواصفات الاتية: حجم الورق A 4، وبمسافتين بما في ذلك الحواشي الهوامش والمراجع والجدول والملاحق، وبحواشي واسعة ٢,٥ سم او اكثر اعلى واسفل وعلى جانبي الصفحة .
- يقدم الباحث خطاباً مرافقاً يفيد ان البحث او ما يشابهه لم يسبق نشره، ولم يقدم لأي جهة اخرى داخل العراق او خارجه، ولحين انتهاء اجراءات البحث.
- يكون الحد الاقصى لعدد صفحات البحث ٢٥ صفحة.
- يكون البحث مكتوباً بلغة سليمة باللغة العربية او اللغة الانكليزية ومطبوع على الالة الحاسبة بخط Simplified Arabic حجم ١٤، على ان يتم تمييز العناوين الرئيسة والفرعية.
- تكتب الهوامش والمراجع وفق نظام شيكاغو للتوثيق، بخط حجم ١٤، على ان يتم ترتيبها بالتتابع كما وردت في المتن، ويكون تنظيم المراجع هجائياً حسب المنهجية العلمية المعتمدة وباللغتين العربية والانكليزية.
- تقول كافة حقوق النشر الى المجلة.
- تعبر البحوث عن اراء اصحابها، ولا تعبر بالضرورة عن رأي المجلة.
- بيانات الباحث والملخص:
- يلزم الباحث بتقديم البيانات الخاصة به وببحثه، وباللغتين العربية والانكليزية، وتشمل الاتي: عنوان البحث، أسماء وعناوين الباحثين، ورقم الهاتف النقال، والبريد الالكتروني، وملخصين - عربي وانكليزي - بحد اقصى ٢٥٠ كلمة يحتويان الكلمات المفتاحية للبحث، والهدف من البحث، والمنهج المتبع بالبحث، وفحوى النتائج التي توصل اليها.
- ادوات البحث والجدول:
- اذا استخدم الباحث استبانة او غيرها من ادوات جمع المعلومات، فعلى الباحث ان يقدم نسخة كاملة من تلك الاداة، ان لم يكن قد تم ورودها في صلب البحث او ملاحقه.
- اذا تضمن البحث جداول او اشكال يفضل ان لا يزيد عرضها عن حجم الصفحة A 4، على ان تطبع ضمن المتن.

- يوضع الشكل بعد الفقرة التي يشار اليه فيها مباشرة، ويكون عنوانه في اسفله.
- يوضع الجدول بعد الفقرة التي يشار اليه فيها مباشرة، ويكون عنوانه في اعلاه.
- **تقويم البحوث:**
- تخضع جميع البحوث المرسلة الى المجلة الى فحص اولي من قبل هيئة التحرير لتقرير اهليتها للتحكيم، ويحق لها ان تعتذر عن قبول البحث دون بيان الاسباب.
- تخضع جميع البحوث للتقويم العلمي بما يضمن رصانتها العلمية، وقد يطلب من الباحث اذا اقتضى الامر مراجعة بحثه لإجراء تعديلات عليه.
- **المستلآت:**
- يمنح صاحب البحث المنشور نسختين مستلة عن بحثه، ترسل الى عنوان الباحث المثبت بالبحث.
- **اجور النشر:**
- يقوم الباحث بتسديد اجور النشر، والبالغة ١٢٥,٠٠٠ مائة وخمسة وعشرون الف دينار عراقي، واذا زادت صفحات البحث عن ٢٥ صفحة تضاف ٥,٠٠٠ خمسة الاف دينار عراقي عن كل صفحة.
- الباحثون من خارج العراق تنشر نتاجاتهم العلمية مجانا.
- **الاشتراك السنوي :**
- الافراد داخل العراق ١٢٥,٠٠٠ مائة الف دينار عراقي.
- المؤسسات داخل العراق ١٥٠,٠٠٠ مائة وخمسون الف دينار عراقي.
- خارج العراق ١٥٠ مائة وخمسون دولار او ما يعادلها.
- **المراسلات :**
- توجه المراسلات الى : جمهورية العراق – جامعة الأنبار – مجلة جامعة الأنبار للعلوم الإنسانية
- الموقع الالكتروني للمجلة <https://www.juah.uoanbar.edu.iq>
- هاتف رئيس التحرير: ٠٧٨٣٠٤٨٥٠٢٦
- هاتف مدير التحرير : ٠٧٨٢٩٠٧٣١١٠
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## ثبت البحوث المنشورة

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**Mobile Assisted Language Learning: A General Overview of Features, Advantages and Implications**

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**Abstract:**

Mobile Assisted Language Learning (MALL) refers to the use of smart mobile devices, such as smartphones and tablets, to support language learning processes. With the widespread adoption of mobile technology, MALL has gained significant attention in recent years as promising technology to language learning and teaching. Currently, MALL is considered as of significant potential to enhance language learning and teaching outcomes by supporting learner engagement, autonomy, and motivation. Mobile learning environment provides opportunities for authentic and contextualized language use, helping learners to engage the practices of language skills in the real world settings. This paper provides an overview of MALL, discussing its definition, features, advantages, and challenges. It explores the various applications of MALL in different language learning contexts and presents a critical analysis of its effectiveness. Additionally, the paper addresses the future prospects and potential advancements in MALL, considering the evolving landscape of mobile technology and language learning.

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## تعلم اللغة بمساعدة الهاتف المحمول: نظرة عامة عن الخصائص والمميزات والتحديات

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### الملخص:

يشير مصطلح تعلم اللغة بمساعدة الهاتف المحمول إلى استخدام الأجهزة المحمولة مثل الهواتف الذكية والأجهزة اللوحية في تعلم اللغة. ومع الاستخدام المتزايد لتقنية الهواتف المحمولة أكتسب هذا التخصص اهتماما ملحوظا في السنوات الأخيرة باعتباره تقنية واعدة لتعلم اللغة وتعليمها. وفي الوقت الحاضر يعتبر تعلم اللغة بمساعدة الهاتف المحمول من الإمكانيات المعتمدة لتعزيز مخرجات تعلم اللغة وتعليمها من خلال تعزيز اندماج المتعلمين واستقلاليتهم واندفاعهم لتعلم اللغة حيث توفر بيئة التعليم من خلال الهاتف المحمول فرصة للاستخدام الحقيقي للغة مما يساعد الطلبة على الانغماس في أنشطة تعلم المهارات اللغوية بشكل واقعي. تهدف هذه الدراسة إلى تقديم فهم شامل ومعمق عن تعلم اللغة بمساعدة الهاتف المحمول عن طريق استعراض التعريف بهذا المجال وتبيان خصائصه وفوائده وإبراز التحديات والمشكلات التي تواجه مستخدميه. وتستعرض الدراسة كذلك التطبيقات المتنوعة لهذا التخصص والمستخدم في المواقف التعليمية المختلفة وذلك من خلال تقديم تحليل نقدي لفاعلية هذه التطبيقات. بالإضافة إلى ذلك، تتناول الدراسة الآفاق المستقبلية والتطورات المحتملة لهذا المجال مع الأخذ بنظر الاعتبار التطورات الحالية في مجال التكنولوجيا وعلاقته بتعلم اللغة.

### الكلمات المفتاحية

تعلم اللغة بمساعدة الهاتف المحمول، التعلم عن طريق الهاتف المحمول، تعلم اللغة، تقنية الهاتف المحمول

## 1. Introduction

### 1.1 Background

The rapid expansion of mobile technologies has caused a considerable impact in the various aspects of human life, education is not an exception. Language learning and teaching, in particular, has promoted by the integration of mobile devices into educational processes. Mobile Assisted Language Learning (MALL) is a promising field that



involves the use of mobile devices and applications to support language learning and teaching. In his study (Yang, 2013) confirmed that the availability of immeasurable language learning apps, online resources, and communication tools, MALL offers learners an exceptional opportunity to enhance their language skills anytime and anywhere.

The widespread adoption and advancements in mobile technology have had a profound impact on various aspects of our lives, including education and language learning (Cakmak, 2019). Mobile devices, such as smartphones and tablets, have become integral tools for communication, information access, and entertainment. Leveraging the power and ubiquity of these devices, Mobile Assisted Language Learning (MALL) has emerged as an innovative approach to language education that combines traditional teaching methods with mobile technology to enhance language learning experiences (Hulme, 2021).

Mobile Assisted Language Learning environment represents an alternative to traditional approaches of language learning by allowing learners to access various language resources, practice language skills and participate in interactive activities anytime, anywhere via their mobile devices. With the ability to connect to the internet, mobile devices offer a wealth of language learning applications, online courses, multimedia resources and collaborative platforms that cater to the diverse needs and preferences of learners (Kukulska, 2009).

According to Sam (2021), the primary advantage of MALL lies in its ability to make language learning more accessible, flexible, and personalized. Learners can utilize their mobile devices to access a wide range of language learning materials and tools, such as vocabulary flashcards, grammar exercises, pronunciation guides, and language learning apps. According to (Sato, 2015) these resources are often designed to be interactive and engaging, providing learners with immediate feedback, progress tracking, and adaptive learning features.

Furthermore, MALL fosters autonomous and self-directed learning, empowering learners to take ownership of their language learning journey (Haerazi, 2023). Mobile devices allow learners to set their own pace, choose learning materials according to their interests and proficiency levels, and practice language skills through interactive exercises and multimedia content (Jeong, 2022). The ability to learn with movement also means that learners can maximize their language learning opportunities during commuting, waiting periods, or any other free moments in their daily lives.

MALL has demonstrated great potential in catering to the diverse needs of language learners, including students in formal educational settings, professionals seeking to improve their language proficiency, and individuals interested in learning a new language for personal growth or travel purposes (Yang, 2013). Additionally, MALL has proven particularly effective for learners who require flexible learning schedules or have limited access to traditional classroom environments.

As MALL continues to evolve, researchers and educators are exploring various pedagogical approaches, instructional strategies, and mobile learning technologies to optimize language learning outcomes (Bernacki, 2020). Mobile phone applications have great potential as effective pedagogical tools with features such as accessibility, manageable interface, and multifunctional components. The researchers are investigating the effectiveness of mobile applications, social media platforms, augmented reality, and virtual reality in language learning contexts. However, while MALL offers numerous advantages, it also presents challenges and considerations (Ozer, 2018). Issues such as learner motivation, engagement, distraction management, pedagogical design, and the digital divide need to be addressed to ensure the effective integration of mobile technology in language learning.

In his study (Tra, 2020) showed that Mobile Assisted Language Learning (MALL) harnesses the potential of mobile devices to revolutionize language education. By providing learners with access to a collection of language learning resources, tools, and interactive activities, MALL empowers learners to take charge of their language learning journey, anytime and anywhere. As technology continues to advance, MALL holds immense promise for the future of language education, offering personalized and flexible learning experiences that cater to the diverse needs of language learners.

## 1.2 Research Objective

The main objective of this research is to provide a general overview of the field of Mobile Assisted Language Learning (MALL). This is planned to be achieved by providing a broad and complete understanding of MALL different perspectives by examining its definitions, characteristics, advantages, challenges, and applications. Furthermore, the paper critically examines the effectiveness of MALL based on authentic research studies and identifies potential advances

and future prospects in the field.

## 2. Mobile Assisted Language Learning

### 2.1 Definition of MALL

Mobile Assisted Language Learning (MALL) can be defined as the integration of mobile technology, such as smartphones, tablets, and wearable devices, into language learning processes (Keengwe, 2014). It involves the use of mobile applications, online resources, and communication tools to support learners in acquiring and developing their language skills. MALL offers learners the flexibility and convenience to learn languages at their own pace, independent of time and location constraints.

According to the International Association for Mobile Learning (IamLearn): "MALL refers to language learning facilitated by mobile devices such as personal digital assistants, smartphones, multimedia players, tablet computers, and mobile phones. It encompasses self-access learning, collaboration with peers and experts, language practice with native speakers, and the development of language learning materials." [Reference: IamLearn - Mobile Assisted Language Learning]

Kukulska (2018) defined MALL as "MALL refers to learning with mobile technologies, often with a focus on formal or informal language learning or the use of language learning applications." (pp. 217-235)

"MALL encompasses the use of portable digital devices such as smartphones, tablets, and portable media players for language learning and teaching purposes. It involves the integration of these devices into language learning and teaching practices, allowing learners to access learning materials and engage in language learning activities anytime and anywhere." (Chaka, 2017: pp 217-231)

These definitions presented a complete understanding of Mobile Assisted Language Learning (MALL) as the utilization of mobile devices to facilitate language learning, including self-directed learning, collaboration, practice, and the development of language learning materials (Zain, 2021).

### 2.2 Features of Mobile Assisted Language Learning

The key features of MALL include portability, ubiquity, interactivity, personalization, and connectivity (Okazaki, 2013). Portability refers to the ease with which mobile devices can be carried and used anywhere, allowing learners to engage in language learning

activities on the go. Ubiquity implies the widespread availability of mobile devices and internet connectivity, enabling learners to access language learning resources and tools anytime. Interactivity emphasizes the interactive nature of mobile applications and tools that facilitate active participation and engagement. Personalization according to (Ladkin, 2015) denotes the ability to customize learning experiences according to individual preferences, learning styles, and proficiency levels. Connectivity highlights the communication and collaboration opportunities that mobile devices offer, enabling learners to interact with native speakers, peers, and language learning communities.

### **3. Advantages of Mobile Assisted Language Learning**

#### **3.1 Flexibility and Convenience**

One of the key advantages of MALL is its flexibility and convenience. Learners can access language learning resources, practice exercises, and interactive materials anytime, anywhere from their mobile devices. This flexibility allows learners to fit language learning into their daily routines, making it more practical and accessible.

Mobile Assisted Language Learning (MALL) applications offer learners unparalleled flexibility in their language learning endeavors (Wardak, 2020). With the use of mobile devices, learners can access language learning resources and engage in interactive activities at their convenience, regardless of time and location.

MALL applications offer learners the freedom to learn anytime, anywhere. Learners can use their mobile devices to access language learning materials such as vocabulary flashcards, grammar exercises and multimedia content, even while commuting or in their free time. This flexibility allows learners to maximize their learning opportunities and fit language learning into their busy schedules (Kukulska & Shield, 2008).

Moreover, MALL applications often offer personalized learning experiences. Learners can choose materials and activities that match their interests, proficiency levels, and learning goals. According to (Stockwell, 2013), this customization promotes learner autonomy and self-directed learning, empowering learners to tailor their language learning experience according to their individual needs.

In formal contexts, learners often appear to request subsidies for their studies to motivate them to use mobile devices to support their learning, while learners in informal contexts appear to place less

emphasis on cost and having access to learning materials at will meet their own needs.

### 3.2 Personalized and Customized Learning

The prevalence of smart phones and other mobile devices has opened up new avenues for personalized applications (Davidson, 2014). MALL offers learners the opportunity to personalize their language learning experiences based on their specific needs, interests, and proficiency levels. Mobile applications and platforms often provide adaptive learning features, allowing learners to set their learning goals, track their progress, and receive tailored feedback. Learners can also choose from a wide range of language learning apps and resources that suit their preferred learning styles and methodologies.

One of the key advantages of Mobile Assisted Language Learning (MALL) is the ability to personalize and customize language learning experiences to meet the individual needs and preferences of learners. MALL applications provide learners with a range of options to tailor their learning journey, leading to more effective and engaging language acquisition.

There are different mobile devices in the market well-suited to the needs of different users. The main activities can be performed by many mobile phones. However, for language learning, the cost and technologies related to the mobile devices should be taken into consideration. Such learners can use their customized mobile devices for language learning based on their own abilities (Mingah & Nizarat, 2012)

Personalization in MALL allows learners to choose learning materials, activities, and resources that align with their interests, proficiency levels, and learning goals (Aguilar, 2018). Learners can access a variety of language learning apps, multimedia content, and interactive exercises that cater to their specific needs. This personalization fosters a sense of ownership and motivation, as learners feel more engaged and invested in their language learning process.

Customization in MALL goes beyond material selection. Learners can customize the learning pace, progression, and feedback mechanisms according to their preferences (Kukulska, 2016). MALL applications often provide features such as adaptive learning algorithms, progress tracking, and personalized feedback, allowing learners to receive tailored support and adapt their learning journey based on their strengths and weaknesses.



Moreover, MALL applications enable learners to learn at their own convenience, anytime and anywhere. Learners can choose when and where to engage in language learning activities, making it easier to integrate learning into their daily lives and routines. This flexibility allows learners to take advantage of small pockets of time, such as commuting or waiting, for language practice.

### **3.3 Engagement and Motivation**

Mobile devices provide learners with interactive and multimedia-rich learning experiences, which can significantly enhance engagement and motivation. Gamified language learning apps, immersive language practice exercises, and multimedia content make language learning more enjoyable and stimulating. Furthermore, the integration of social and collaborative features in mobile applications fosters peer interaction, competition, and community building, further enhancing learner engagement (Kukulska & Shield, 2008).

MALL applications have shown a remarkable ability to increase engagement and motivation in language learning. By leveraging the interactive and multimedia features of mobile devices, these applications offer a dynamic and immersive learning experience that captivates learners' attention.

MALL applications employ various techniques to enhance engagement. They often incorporate gamification elements, such as challenges, rewards, and progress tracking, which create a sense of achievement and motivate learners to continue their language learning journey (Stockwell, 2013). The interactive nature of MALL applications, including quizzes, language games, and multimedia content, fosters active participation, keeping learners engaged and invested in the learning process.

Furthermore, MALL applications tap into learners' intrinsic motivation by allowing them to choose materials and activities aligned with their interests and learning preferences. Learners can explore topics they find engaging, access authentic resources, and interact with real-life language scenarios through audio, video, and interactive exercises (Kukulska & Shield, 2007). This personalization and relevance of content enhance learners' motivation and make language learning more enjoyable.

### **3.4 Collaborative Learning Opportunities**

MALL facilitates collaborative learning by connecting learners with native speakers, peers, and language learning communities.

Learners can engage in language exchange programs, participate in online forums, and join virtual language learning communities to practice their language skills, receive feedback, and gain cultural insights. Collaborative activities encourage peer interaction, cultural exchange, and the development of communicative competence (Troussas, Virvou, & Alepis, 2014).

Mobile Assisted Language Learning (MALL) applications offer collaborative learning opportunities that foster interaction, communication, and cooperation among learners. These applications leverage mobile technology to connect learners, facilitate peer-to-peer collaboration, and promote a sense of community.

MALL applications enable learners to engage in collaborative activities such as language practice, group discussions, and virtual language exchanges. Learners can connect with fellow language learners or native speakers through online platforms, social media groups, or language learning communities within the application. These collaborative features encourage learners to communicate in the target language, exchange ideas, receive feedback, and support each other's language learning journey (Kukulska & Shield, 2007).

Additionally, MALL applications often incorporate interactive features like chat functions, discussion forums, and collaborative projects. These features allow learners to work together on language-related tasks, share resources, and provide mutual support. Collaborative learning in MALL applications promotes a social and interactive environment, enhancing learners' language proficiency and building their communicative competence.

### **3.5 Authentic Language Use**

Mobile devices provide learners with authentic language use opportunities through various features. Language learning apps often include real-life dialogues, videos, and audio recordings that expose learners to natural language use. Additionally, learners can access authentic materials, such as news articles, podcasts, and social media platforms, to develop their listening, reading, and writing skills in a real-world context (Nino, 2015)

MALL applications facilitate authentic language use by providing learners with access to real-world language resources and interactive activities. These applications offer authentic texts, audio, and video materials that reflect natural language use in various contexts. Learners can engage with authentic content such as news



articles, podcasts, videos, and social media posts, allowing them to develop skills for understanding and using language in authentic situations. According to (Kukulska & Viberg, 2018), by experiencing authentic language use through MALL applications, learners gain exposure to natural language patterns, cultural nuances, and context-specific vocabulary, enhancing their overall language proficiency and communicative competence.

#### **4. MALL Challenges and Limitations**

##### **4.1 Technical Limitations**

Despite the development in mobile technology, certain technical limitations can obstruct the effectiveness of MALL applications. Limited storage capacity, battery life, and screen size of mobile devices can restrict the types and amount of learning materials that can be accessed. Additionally, network connectivity issues and compatibility problems with different operating systems and devices can pose challenges to seamless learning experiences.

Internet connections plays a critical role in deciding the quality of learning through mobile devices. For example, 30GB on average seems huge, but it may not be enough to hold high-definition (HD) audio and video files. HD audio and video files can be stored in the mobile phone memory, but they affect the system functionality and occupy more storage space. Moreover, users might face slow processing speed and sometime the data might be corrupted (Khan, 2018).

Matin (2017) states that the problems related to WiFi or mobile data connections and the speed of the mobile network depend on the speed of the Internet. Cellular network speed depends on the data provider and where people live. However, with the emergence of new technologies and the advancement from 4G to 5G network connections, developed countries are accelerating in the field of technology-enhanced learning. In addition, not everyone can have specific software to run the files needed for learning purposes. In the context of learning with mobile devices, studies suggest that learners shift their learning habits due to the novelty effect.

##### **4.2 Pedagogical Challenges**

MALL implementation requires careful consideration of pedagogical strategies and approaches (Khan, 2018). Language teachers and instructors need to design appropriate activities, select suitable apps, and provide guidance to learners to ensure effective

language learning. Integrating MALL into the curriculum and aligning it with learning objectives can be a complex task, as it requires balancing technology-enhanced learning with traditional classroom instruction.

Learners prefer m-learning when they are not in the classroom. Any learning activity requires effort and brain work. After class hours, learners prefer to relax and how many of them want to study or learn rather than relax on the bus or in the car on the way home after a long day of study? When they come home and want to study, mobile devices probably won't be their first choice. The more likely choices would be computers with educational software installed, or computers with high-speed Internet access for e-learning. Mobile phones are mainly used for communication with other people and not for educational purposes. The foundations of learning are still not changing with mobile learning (Razak, 2004). M-learning does not replace traditional learning, it is just a different way of learning using new technologies. A study conducted by a psychological society in 2017 identified that the fear of losing smartphones is compared to that of the fear of a terrorist attack.

#### **4.3 Learner Autonomy and Self-Directed Learning**

While MALL promotes learner autonomy, self-directed learning skills are crucial for successful engagement with mobile language learning resources. Learners need to possess the motivation, self-discipline, and time-management skills to engage in self-directed learning and make effective use of mobile language learning tools (Kim, 2019). Lack of guidance and support can lead to learners feeling overwhelmed or unsure about their learning progress.

Najeeb (2013) stated that learner autonomy refers to the learner's ability to take control of their learning process, to make decisions and set goals, while self-directed learning focuses on the learner's active participation in the acquisition of knowledge and skills. MALL, on the other hand, uses mobile technology to facilitate learning anytime, anywhere.

Combining learner autonomy and self-directed learning with MALL opens up exciting possibilities for language learners. With mobile devices such as smartphones and tablets, learners have access to a vast array of resources, including language learning apps, online courses, and interactive content (Alzubi, 2017). They can adapt their learning experiences based on their individual needs, interests, and learning styles.

#### 4.4 Lack of Guidance and Support

The absence of face-to-face interaction with language instructors and peers in MALL can sometimes result in a lack of guidance and support for learners. It was proved by (Mu, 2021) in a study that adequate scaffolding and instructional support need to be provided to learners to ensure they receive appropriate feedback, clarification, and guidance throughout their language learning journey. Language teachers play a crucial role in monitoring and facilitating learners' progress in the absence of traditional classroom settings.

### 5. Applications of Mobile Assisted Language Learning

#### 5.1 Vocabulary Acquisition

Mobile language learning apps offer a variety of vocabulary building exercises, flashcards and quizzes to help learners develop their vocabulary. The features of spatial repetition processes make vocabulary acquisition engaging and effective.

MALL (Mobile-Assisted Language Learning) is an effective tool for vocabulary building. There are different strategies to enhance vocabulary acquisition using MALL applications. These tools are including the flashcard applications that are used to create personalized flashcards to gain new vocabulary words. Among these apps are Anki, Quizlet, and Memrise. Another tool is the vocabulary games which used to explore learning applications to offer interactive vocabulary games. Another significant tool that is the dictionary apps that are installed on smartphones to provide quick access to English words, definitions and antonyms. Among these apps are Merriam-Webster and Oxford English Dictionaries.

#### 5.2 Grammar and Sentence Structure Practice

Numerous apps are developed and utilized for learning grammar. Mobile apps provide interactive grammar exercises, sentence-building activities, and grammar reference materials to help learners improve their grammatical accuracy and sentence structure (Ponniah, 2020). Learners can receive instant feedback and explanations, enabling them to self-correct their errors.

Mobile-Assisted Language Learning (MALL) applications can be of great use in learning and improving grammar and sentence structure as MALL apps provide a convenient and accessible platform for learners to participate in grammar practice and activities in anytime, from anywhere (Rajendran, 2021). These applications offer a wide range of interactive features that make learning grammar exciting and

fun.

At present, grammar learning has been exercised through web based technologies where tense is a very important component in grammar. Grammar focused MALL applications include lessons, quizzes, and interactive exercises that cover various grammatical structures. Learners can access comprehensive explanations of grammar rules and examples to help them understand the principles behind sentence structure, verb forms, word order, and more (Refat, 2020). In addition, MALL applications often include gaming elements such as rewards, badges or leader boards to motivate learners and encourage their progress. These features encourage a sense of accomplishment and competitiveness, and make grammar learning more exciting and memorable.

In most of the apps MALL applications provide instant feedback on grammar practices, allowing the learners to identify and to correct their mistakes in real time. This feedback helps reinforce accurate grammar usage and prevents the development of incorrect language forms. Some advantages pointed out by students were that it has various levels to help you build up, you are given feedback and you can see your improvements over time (Nino, 2015).

With MALL Grammar Learning App, learners can personalize their learning experience, track their progress, and revisit difficult topics at their own pace. This flexibility encourages self-directed learning and allows learners to focus on areas that need improvement.

### **5.3 Listening and Speaking Development**

As explained by (Stockwell, 2013), mobile devices allow learners to practice listening and speaking skills through audio and video recordings, pronunciation exercises, and language exchange platforms. Learners can improve their listening comprehension, speaking fluency, and pronunciation accuracy at their own pace.

Mobile Assisted Language Learning applications play a vital role in the development of listening and speaking skills among English learners in different contexts. These apps offer learners with the opportunity to practice listening and speaking in a suitable and interactive way (Mortazavi, 2021)

MALL applications that focus on listening skills provide a wide range of audio materials such as podcasts, dialogues and recordings by native speakers. Learners can use these resources to improve their listening skills, become familiar with natural speech pattern, and

improve their ability to understand different dialects and speeches.

There are several fields of mobile-based language learning include such as vocabulary, reading comprehension, listening, speaking, pronunciation, phonetics, etc. Speaking MALL apps often include speech recognition technologies and interactive speaking exercises (Alzatma, 2020) . Learners can practice pronunciation, intonation, and fluency by repeating phrases, engaging in simulated conversations, or recording their own speech and comparing it to native speaker learning models.

#### **5.4 Reading and Writing Enhancement**

Mobile applications offer reading materials, e-books, and interactive writing exercises that foster reading comprehension and writing skills development. Communicating effectively using different technological tools is one of the essential skills in the digital age of communication. Learners can engage in extensive reading, analyze authentic texts, and receive automated feedback to enhance their reading and writing proficiency.

MALL applications offer enormous potentials for developing reading and writing skills. Leveraging the convenience and spreading of smartphones and tablets, these applications allow learners to participate in language learning activities anytime, anywhere (Nezarat, 2012).

Reading and writing practices help learners to enhance their vocabulary acquisition, and vocabulary knowledge, in turn, helps them to promote reading comprehension. Reading and writing activities can be offered to learners either via a well-designed learning course installed on the mobile devices or through SMS sent to the learners.

MALL applications provide a range of reading comprehension features. They present interactive texts with fixed dictionaries so learners can quickly access word meanings and deepen their understanding. In addition, these applications often contain multimedia items such as audio recordings and videos, which improve pronunciation and listening comprehension (Zamborova, 2020). Personalized feedback and progress tracking allow learners to monitor their progress over time.

Concerning writing improvement practices, there are numerous strategies that can possibly adopted in the process of English learning especially in order to improve the students' writing skills. Recently, technology has an important role in enhancing and facilitating English

language teaching and learning (Jassim et al, 2019).

For the purpose of developing writing skills, MALL applications present valuable tools and resources for learners. They provide writing prompts, grammar and vocabulary practice, and grammar correction features to enable learners develop their writing skills. The applications are often integrated with technologies like natural language processing to provide quick feedback on grammar activities, spelling, and sentence structure exercises to improve the accuracy in writing. According to (Winardi, 2020), the benefits of MALL applications go beyond convenience and accessibility to provide authentic writing improvement facilities.

According to that, MALL applications provide a promising opportunity to improve reading and writing skills for learners in various situations. Leveraging the power of mobile devices and innovative technologies, these applications provide learners with interactive and personalized language learning experiences that lead to improved reading and writing skills and confidence (Goyal, 2021).

## **6. Future Prospects of MALL Applications**

The developments in modern communication technologies and natural language processing present promising prospects for MALL applications in EFL and ESL language learning contexts. Mobile applications can provide personalized feedbacks, and adaptive learning exercises. Natural language processing technologies can enable language learners to work together with mobile devices via voice recognition and natural language understanding, enhancing the authenticity of language practice.

Another future potential of MALL applications is the gaming and game based learning practices which have already made a considerable impact in language learning. This impact is caused from the enjoyment and fun associated with the use of MALL applications (Kukulska & Shield, 2008). The integration of gamified elements, such as rewards, challenges, and leader boards, in mobile language learning applications may develop motivation, engagement, and language learning outcomes. As it is concluded in Leowin (2019) study, the game-based learning approaches can present interactive and experiential learning opportunities, making language learning enjoyable, interesting and effective.

The promising future of Mobile Assisted Language Learning applications is represented in the advancement of adaptive and





personalized learning. Using the learner data and algorithms, MALL platforms can dynamically adjust learning content, pace, and difficulty levels to suit individual learners' needs. Adaptive and personalized learning approaches can optimize learning outcomes and cater to diverse learner profiles. Whether they are welcomed right now or not, mobile devices are finding their way into classrooms and we must ensure that educational practice can include these technologies in productive ways. In the future, the success of learning and teaching with mobile technologies will be measured by how seamlessly it weaves itself into our daily lives, with the greatest success paradoxically occurring at the point where we do not recognize it as learning at all (Odeh, 2014).

## 7. Conclusion

Mobile Assisted Language Learning (MALL) has emerged as a powerful tool in language learning and teaching, offering various benefits such as flexibility, personalization, increased engagement, collaborative learning and authentic language use. In spite of some challenges and limitation aspects, MALL has revealed a positive effect on learners language skills and motivation.

The integration between mobile devices and applications in language learning practices and activities has changed the traditional language learning practices. Language learners can now access a immense number of resources, engage in interactive activities, and connect with language learning communities using their mobile devices. MALL empowers learners to take control of their learning, learn at their own pace, and engage in authentic language use.

For the purpose of increasing the future effectiveness of MALL applications, future researches should explore the design and development of personalized and customized learning systems. Furthermore, investigations into the effect of the new emerging technologies such of MALL can provide helpful insights. Also, long-term studies examining the sustainability and scalability of MALL implementation are significant and required.

In conclusion, Mobile Assisted Language Learning (MALL) has the potential to cause a revolution in language learning and teaching by leveraging the spreading and interactivity of mobile phones. By addressing the effective advantages of using MALL applications, language learners can access personalized language learning experiences that serve their individual learning needs. As technology

continues to advance, MALL will continue to evolve, offering exciting possibilities for the future of language learning.

### References

- AbuSa'aleek, Atef Odeh. "A review of emerging technologies: Mobile assisted language learning (MALL)." *Asian Journal of Education and e-learning* 2, no. 6 (2014).
- Alzatma, Alaaeddin Adam, and Khader Khader. "Using mobile apps to improve English speaking skills of EFL students at the Islamic University of Gaza." *Linguistics* (2020).
- Alzubi, Ali Abbas Falah, and Manjet Kaur Mehar Singh. "The use of language learning strategies through smartphones in improving learner autonomy in EFL reading among undergraduates in Saudi Arabia." *International Journal of English Linguistics* 7, no. 6 (2017): 59-72.
- Bernacki, Matthew L., Jeffrey A. Greene, and Helen Crompton. "Mobile technology, learning, and achievement: Advances in understanding and measuring the role of mobile technology in education." *Contemporary Educational Psychology* 60 (2020): 101827.
- Cakmak, Fidel. "Mobile learning and mobile assisted language learning in focus." *Language and Technology* 1, no. 1 (2019): 30-48.
- Davidson, Drew, Matt Fredrikson, and Benjamin Livshits. "Morepriv: Mobile os support for application personalization and privacy." In *Proceedings of the 30th Annual Computer Security Applications Conference*, pp. 236-245. 2014.
- Haerazi, Haerazi. "MALL integrated with metacognitive skills to promote preservice English teachers' intercultural communicative competence." *Journal on English as a Foreign Language* 13, no. 2 (2023): 581-609.
- Hoi, Vo Ngoc, and Guanglun Michael Mu. "Perceived teacher support and students' acceptance of mobile-assisted language learning: Evidence from Vietnamese higher education context." *British Journal of Educational Technology* 52, no. 2 (2021): 879-898.
- Jeong, Kyeong-Ouk. "Facilitating sustainable self-directed learning experience with the use of mobile-assisted language learning." *Sustainability* 14, no. 5 (2022): 2894.
- Keengwe, Jared, and Malini Bhargava. "Mobile learning and integration of mobile technologies in education." *Education and Information Technologies* 19 (2014): 737-746.
- Khan, Raja Muhammad Ishtiaq, Noor Raha Mohd Radzuan, Muhammad Shahbaz, and Ainol Haryati Ibrahim. "EFL Instructors' Perceptions on the Integration and Implementation of MALL in EFL Classes." *International Journal of Language Education and Applied Linguistics* (2018): 39-50.
- Klimova, Blanka, and Katarina Zamborova. "Use of mobile applications in developing reading comprehension in second language acquisition—A review study." *Education Sciences* 10, no. 12 (2020): 391.
- Kukulska-Hulme, Agnes, and Lesley Shield. "An overview of mobile assisted language learning: From content delivery to supported collaboration and





- interaction." *ReCALL* 20, no. 3 (2008): 271-289.
- Kukulska-Hulme, Agnes, and Olga Viberg. "Mobile collaborative language learning: State of the art." *British Journal of Educational Technology* 49, no. 2 (2018): 207-218.
  - Kukulska-Hulme, Agnes. "Reflections on research questions in mobile assisted language learning." *Journal of China Computer-Assisted Language Learning* 1, no. 1 (2021): 28-46.
  - Kukulska-Hulme, Agnes. "Will mobile learning change language learning?." *ReCALL* 21, no. 2 (2009): 157-165.
  - Kukulska-Hulme, Agnes. "Personalization of language learning through mobile technologies." (2016).
  - Levy, Mike, and Glenn Stockwell. *CALL dimensions: Options and issues in computer-assisted language learning*. Routledge, 2013.
  - Loewen, Shawn, Dustin Crowther, Daniel R. Isbell, Kathy Minhye Kim, Jeffrey Maloney, Zachary F. Miller, and Hima Rawal. "Mobile-assisted language learning: A Duolingo case study." *ReCALL* 31, no. 3 (2019): 293-311.
  - Mallampalli, Sasi Sekhar, and Shriya Goyal. "Mobile Applications for Developing Second Language Collaborative Writing." *Int. J. Interact. Mob. Technol.* 15, no. 7 (2021): 185-193.
  - Miangah, Tayebah Mosavi, and Amin Nezarat. "Mobile-assisted language learning." *International Journal of Distributed and Parallel Systems* 3, no. 1 (2012): 309.
  - Mortazavi, Mahyuddin Nasution, Foad Abdolazadeh, Mojtaba Behrooz, and Afshin Davarpanah. "Sustainable learning environment by mobile-assisted language learning methods on the improvement of productive and receptive foreign language skills: A comparative study for Asian universities." *Sustainability* 13, no. 11 (2021): 6328.
  - Neuhofer, Barbara, Dimitrios Buhalis, and Adele Ladkin. "Smart technologies for personalized experiences: a case study in the hospitality domain." *Electronic Markets* 25 (2015): 243-254.
  - Niño, Ana. "Language Learners Perceptions and Experiences on the Use of Mobile Applications for Independent Language Learning in Higher Education." *IAFOR Journal of Education* (2015).
  - Okazaki, Shintaro, and Felipe Mendez. "Perceived ubiquity in mobile services." *Journal of Interactive marketing* 27, no. 2 (2013): 98-111.
  - Ozer, Omer, and Figen Kılıç. "The effect of mobile-assisted language learning environment on EFL students' academic achievement, cognitive load and acceptance of mobile learning tools." *EURASIA Journal of Mathematics, Science and Technology Education* 14, no. 7 (2018): 2915-2928.
  - Rajendran, Thirumangai, and Melor Md Yunus. "A systematic literature review on the use of mobile-assisted language Learning (MALL) for enhancing speaking skills among ESL and EFL learners." *International Journal of Academic Research in Progressive Education and Development* 10, no. 1 (2021): 586-609.



- Refat, Nadia, Hafizoah Kassim, Md Arafatur Rahman, and Ramdan bin Razali. "Measuring student motivation on the use of a mobile assisted grammar learning tool." *PloS one* 15, no. 8 (2020): e0236862.
- Roh, Jaemin, and Taewoong Kim. "Fostering learner autonomy through CALL and MALL in a Korean class: A case study." *Journal of Interactive Learning Research* 30, no. 2 (2019): 215-254.
- Sam, D. Praveen, and R. Shalini. "Limitations and advantages in implementing MALL in the tertiary ESL classrooms: A review." *International Journal of Recent Technology and Engineering* 9.5 (2021): 27-32.
- Sampurna, Jessica, Agnes Kukulska-Hulme, and Ursula Stickler. "Exploring learners' and teacher's participation in online non-formal project-based language learning." *International Journal of Computer-Assisted Language Learning and Teaching (IJCALLT)* 8, no. 3 (2018): 73-90.
- Sato, Takeshi, Fumiko Murase, and Tyler Burden. "Is Mobile-Assisted Language Learning Really Useful? An Examination of Recall Automatization and Learner Autonomy." *Research-publishing.net* (2015).
- Thamburaj, Kingston Pal, and Karthegees Ponniah. "The Use of Mobile-Assisted Language Learning in Teaching and Learning Tamil Grammar." *PalArch's Journal of Archaeology of Egypt/Egyptology* 17, no. 10 (2020): 843-849.
- Tra, Pham Thu. "MOBILE-ASSISTED LANGUAGE LEARNING IN A UNIVERSITY CONTEXT IN VIETNAM: STUDENTS' ATTITUDES." *VNU Journal of Foreign Studies* 36, no. 1 (2020).
- Troussas, Christos, Maria Virvou, and Efthimios Alepis. "Collaborative learning: Group interaction in an intelligent mobile-assisted multiple language learning system." *Informatics in Education* 13, no. 2 (2014): 279-292.
- Wardak, Masuda. *Mobile assisted language learning (mall): teacher uses of smartphone applications (apps) to support undergraduate students' english as a foreign language (efl) vocabulary development*. Lancaster University (United Kingdom), 2020.
- Winardi, Yohanes Kurniawan. "IMPROVING STUDENTS' WRITING SKILL USING A MOBILE LEARNING APPLICATION." *Jurnal Basis* 7, no. 2 (2020): 281-290.
- Yang, Jaeseok. "Mobile assisted language learning: review of the recent applications of emerging mobile technologies." *English Language Teaching* 6, no. 7 (2013): 19-25.
- Zain, Dodi Siraj Muamar, and Freddie A. Bowles. "Mobile-assisted language learning (MALL) for higher education instructional practices in EFL/ESL contexts: A recent review of literature." *Computer Assisted Language Learning Electronic Journal* 22, no. 1 (2021): 282-307.