Exploring the Features of Mobile Language Learning Apps (MELLAs) for Improving English Language Skills in College Level Students

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Abstract

This study investigated the features of mobile language learning apps (MELLAs) that college students prefer for improving their English skills. The research surveyed 40 students from two government colleges in Khairpur. The researcher employed a mixed-methods approach, analyzing quantitative data in MS-Excel (likely survey responses agree, strongly agree, neutral, disagree, strongly disagree) in tables first, followed by qualitative data (potentially open-ended questions through face-to-face interviews) presented in graphs based on the quantitative findings. The study suggests that using MELLAs for self-directed learning is an effective way for college students to improve their English, favoring this approach over traditional methods in which students use themselves. It is said to be self-directed language learning that saves time. Further, this study recommends improving language learning apps and learning strategies. It aims to provide a foundation for future studies in this area, potentially benefiting learners, teachers, parents, and others interested in mobile language learning.

Keywords: MELLA, College Students, Self-Learning

Introduction

The world of mobile technology is rapidly changing, with smartphones and tablets becoming increasingly popular, especially among young people in Pakistan. The spread of mobile applications (apps) designed for language learning has significantly influenced the pedagogical landscape, particularly in English language acquisition among college students in Pakistan. These apps, leveraging the convenience of smartphones and tablets, offer a range of features that cater to students' diverse learning preferences and needs. The effectiveness of such mobile apps in enhancing English language skills has been a central point of academic inquiry, with studies examining various aspects, from user engagement to pedagogical outcomes (Annamalai et al., 2022; Nehe et al., 2023). The rise of mobile devices has brought a booming market for mobile application apps (Li, 2021). These apps, readily available in online stores like iTunes App Store and Android Market, cater to a wide range of needs, including Mobile English language learning (MELLAs). These learning apps are not only free and downloadable based on individual interests, but they are also designed with various learning goals in mind. The most significant advantage of mobile apps is that they allow students to learn English anytime and anywhere, breaking the limitations of traditional classrooms. This makes mobile devices a valuable tool for Pakistani students looking to improve their English skills.

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Even though English reigns supreme globally, college students still need help achieving fluency (Maitlo et al., 2022). This is because English proficiency is crucial for both academics and careers. Many fields, like international trade and technology, heavily rely on English. Additionally, multinational companies seek graduates with excellent English skills. The Pakistani government mandates twelve years of English education, from primary to high school, with exams included to address this need. However, despite these efforts, English proficiency remains a hurdle for many Pakistanis, especially Sindhi college students, and they could not qualify for the required needs and procedures and failed. However, despite twelve years of mandatory English education, many college students need help with everyday English. Studies show low proficiency among college students, with only a few able to work in English and impart higher education. This is a significant concern. Current English language courses must be revised and limited to just a few weekly classes (Nehe et al., 2023). However, a ray of hope emerges with the rise of mobile learning apps and their popularity among students. Research suggests that Mobile-Assisted Language Learning (MALL) can improve English skills and boost motivation (Maitlo et al., 2023). However, it is yet to be explored. This makes mobile apps a promising tool for college students to take charge of their English language learning.

Smartphone-Based Learning

Studies by Maliphol (2023) point to the unique features of smartphones, such as easy and quick access to information through apps and the internet. These features allow for continuous interaction, benefit collaborative learning, and improve students' language acquisition. The study clarifies that the term "smartphone" in this context encompasses various mobile devices with or without internet connectivity, including handphones, smartphones, and touch mobiles Kyem (2016). These devices are considered user-friendly and readily available, making them suitable tools for teachers and students. Teachers can utilize them for pedagogical purposes, while students can use them for various learning activities such as searching for information, downloading and saving learning materials, writing drafts, reading and listening to content, editing their work, and sharing their thoughts.

Research Objectives
- To identify the features of mobile language learning apps (MELAs) most preferred by college students for effective English language learning.
- To understand how the preferred features of mobile apps contribute to a student's motivation and engagement in English language learning.

Statement of the Problem

This study focuses on the growing trend of mobile English language learning apps (MELLAs) among college students in Khairpur, a densely populated district in Sindh, Pakistan. While many students traditionally rely on private centers for English language learning, the increasing popularity of MELLAs raises concerns. This research explores the challenges students face when learning English through these apps. Since this is a new study area, the research will investigate students' difficulties while using MELLAs and how these apps can effectively improve their English skills. Despite the vast number of MELLAs available, the effectiveness of self-directed learning through these apps remains to be determined. The study also acknowledges the need for established student opinions on MELLAs. While the abundance of apps offers choice, it can also create an overwhelming "app jungle." Choosing and using the right apps effectively becomes challenging due to the absence of guidance and recommendations. This research aims to address these issues and determine the true potential of MELLAs for Pakistani college students.

Significance of the Study
This study aims to bridge a gap in current research by investigating the features of mobile apps that are most preferred and contribute to effective English learning for Khairpur and Sindh, Pakistan college students. While existing research often overlooks this specific context. This study will provide valuable evidence about how students in Khairpur utilize digital apps to learn English. Unveiling the unexplored and ignored areas of how mobile app shapes the English learning habits of students in Khairpur. Moreover, this study will assess the impact and raise awareness among students about the positive mobile applications and tools. These technologies can empower them to develop more substantial reading, writing, and listening skills. Though it gives way to the regional, cultural, and religious similarities between Pakistan and some neighboring countries, the study's results also hold relevance for those contexts. This could inform educational practices in these regions, too. By providing a deeper understanding of how students in Khairpur engage with mobile apps for English language learning, this study can contribute significantly to local and regional educational practices.

Literature Review
A literature review is a source of previous specific related topics or research (Maitlo et al., 2023). Further, it helps to identify areas where research is lacking or inconclusive, justifying the need for own study (Jeevan et al., 2023).

Mobile Apps
Mobile applications, or apps for short, are programs designed specifically for smartphones, tablets, and other mobile devices. They are mini-software programs you can download from app stores. These stores are typically run by the mobile operating system's owner, like Apple's App Store or Google Play for Android devices (formerly Android Market). So, depending on your phone's operating system, you will use either Google Play or the Apple App Store to find and download apps (Sarane et al., 2009). In Pakistan, mobile apps come in both free and paid varieties. Downloaded from app stores like the Apple App Store or Google Play (formerly Android Market), these apps can be installed on mobile devices like iPads and smartphones or even computers in some cases. Initially designed for basic tasks like checking the weather, managing emails, or setting alarms, mobile apps have become popular due to user demand and readily available developer tools. Today's apps cater to various needs, including education, entertainment, and productivity tools. This growth is fueled by the ever-increasing number of people using smartphone and tablet apps. A 2012 comScore report (Sturm et al., 2018) highlights this trend, indicating that mobile app usage has surpassed web browsing on mobile devices.

Apps as Online English-Learning Resources
Resources are fundamental to effective language learning as essential building blocks for teaching and student comprehension (Basal et al., 2016). Traditional classrooms often rely on static, text-based materials (Cruz et al., 2012). At the same time, online resources offer some flexibility for distance learners. Mobile apps have emerged as a powerful tool, integrating multimedia elements like text, images, animations, audio, and video to create engaging and interactive learning experiences (Shih, 2011). This goes beyond simply presenting information; mobile apps can spark students' interest in learning. Furthermore, communication apps like QQ, WeChat, and Skype allow students to connect and converse with others in English, fostering speaking confidence and encouraging them to express their ideas freely (Shih, 2011). Through these interactions, students can overcome their anxieties and engage in meaningful discussions, improving their fluency and comfort with the language.

English-Learning Apps Criteria
The proliferation of mobile learning apps has led to a surge in students using online resources to improve their English. However, guiding college students on effectively leveraging these apps is crucial. Rob James (2013) emphasizes the importance of critical thinking and evaluating the credibility of information from various sources. Apps that facilitate organizing and comparing different sources can be particularly beneficial for projects and revision tasks. Compared to traditional information sources like books or television broadcasts, the quality and accuracy of information on mobile apps are only sometimes guaranteed. As with any online resource, specific criteria must be considered when using mobile apps for English learning. Updatability emerges as another critical factor. Ahmet (2013) highlights the importance of this feature. Students should be able to adapt their learning materials based on their evolving needs and skill levels. This is especially crucial for self-regulated learners using smartphones or iPads, as English learning resources are constantly updated. Choosing apps with high updatability can save students valuable time, money, and effort in their English learning journey.

Pedagogical Overview
Pedagogy, the science and art of effective teaching, encompasses various methods for delivering instruction (Vormawor et al., 2018). These methods consider learner engagement, reinforcement, motivation, organization, feedback, and evaluation. Traditionally, pedagogical approaches have included teacher-centered, student-centered, and self-regulated learning styles. The rise of mobile technology and the abundance of online learning resources are revolutionizing these pedagogical approaches and demonstrably enhancing student learning outcomes (Govindas, 2001). This suggests that mobile apps play a significant role in transforming how we teach and learn.

Student-centered Learning
Student-centered learning goes beyond just a method; it fosters an institution's specific educational mindset and culture (Attard et al., 2014). This approach aligns with constructivist learning theories, emphasizing students actively constructing their knowledge. In student-centered classrooms, students take ownership of their learning journey. They have a say in what they learn, how they know, and how they assess their progress. This shift in focus from teacher-centered instruction creates a more collaborative environment. Students engage actively instead of passively listening to lectures, interacting and collaborating with their peers and instructors (Concordia University Online, 2012). This approach offers several advantages. Group work fosters the development of crucial communication and collaboration skills (Concordia University Online, 2012). Students also learn to take initiative, ask questions independently, and manage their learning (Concordia University Online, 2012). Finally, increased student interaction and participation increase engagement and interest in learning activities.

Self-Learning
Self-regulated learning (SL) is a process driven by three key factors including metacognition (reflecting on one's thinking), strategic action (planning, monitoring, and evaluating progress against set goals) and motivation to learn (Perry et al., 2006).
Students take charge of their learning journey, actively managing and carrying out their plans while demonstrating initiative and self-directedness. The vast amount of online information, fuelled by the rapid growth of internet technologies, presents challenges and opportunities for students. Self-regulated learners can leverage online resources effectively to find information, determine their learning pace and location, and ultimately achieve significant learning

outcomes (Dabbagh & Kitsantas, 2004). As a subset of online resources, mobile apps can significantly support this form of self-directed learning.

MALL and Self Learning

Mobile-Assisted Language Learning (MALL) offers a promising approach to motivating and engaging students in independently developing their English literacy and language skills. Softa (2011) emphasizes the role of MALL as a motivational tool, highlighting its potential to foster a positive learning environment that encourages self-directed learning. This is supported by Softa's (2011) study involving 230 students, which revealed a positive correlation between a technologically advanced learning environment using mobile technology and a willingness to engage in self-regulated learning. Case, M. (2015) further suggests that technology can empower students with a sense of control and responsibility over their learning. Using apps to learn can motivate students to complete learning tasks independently. Case, M. (2015) argues that mobile apps, as a new learning technology, can significantly impact student motivation and autonomy when integrated effectively. By offering flexibility in terms of time, place, and pace of learning, mobile devices empower students to take charge of their learning journey (Beecher & Williams, 2012). This expanded access allows for continual exposure and practice of literacy skills. MALL fosters self-directed English learning by giving students greater control over their learning experience.

Furthermore, MALL's inherent flexibility has the potential to increase learner autonomy and proficiency (as highlighted in research by (Wang, 2012). Studies by Wang (2012) indicate that e-dictionary apps, a form of MALL, can expand vocabulary and improve reading and writing skills. Similarly, it was found that the affordances provided by MALL can enhance the effectiveness and efficacy of English language acquisition, encompassing speaking, listening, and critical thinking skills.

Research Methodology

The research design describes the research methods used to explore how mobile apps affect students' English learning and their attitudes toward them. It also aimed to identify effective apps for speaking, listening, and reading skills. The researchers used a mixed-methods approach, combining qualitative and quantitative data and analyzed in MS Excel sheets to achieve this. He conducted semi-structured interviews to gather qualitative data on students' experiences and perspectives. Additionally, he used a closed-ended questionnaire to collect quantitative data on students' attitudes and app preferences. This study was conducted at two colleges (Superior Science College (Boys) and Mamtaz College (Girls) in the city of Khairpur, Sindh, Pakistan. Forty participants (20) female and (20) male students participated in the last week of May 2024. The researcher chooses this method to combine study results, which allows for a more comprehensive understanding of the topic and finding exact results that explain the study's objectives. Therefore, the researcher selected a mixed method, which was already used by (Maitlo et al., 2023).

Qualitative Research

This section highlights the role of qualitative research in understanding students' perspectives on mobile app usage for English language learning (MELLAs). Qualitative research seeks in-depth understanding through descriptive data (Walker et al., 2012). A semi-structured interview, chosen for this study (Graue, C. (2015), allows participants to express their views freely while ensuring some level of consistency across interviews (compared to fully unstructured approaches). In this study, the interviews aimed to explore student attitudes toward mobile learning apps, their preferred apps, and suggestions for using MELLAs for English language learning.

Quantitative Research
This section justifies the use of a close-ended questionnaire in the research. Bryman and Bell (2011) acknowledge the gold standard of actual experiments, but such methods are only sometimes feasible. Questionnaires are reliable for gathering data (especially when building on qualitative findings). So, the researcher formatted a close-ended questionnaire based on response options, likely using a Likert scale with options like "agree," "disagree," etc.

Data Collection Tools
The researcher used two different methods of data collection to execute the following instruments: Six Closed-Ended survey questions using a 5-point Likert scale (agree, strongly agree, neutral, disagree, strongly disagree) were used. The data was analyzed in MS Excel and presented in tables. Two open-ended questions were asked through face-to-face interviews.

Interviews
This study utilizes an interview survey to explore three key areas (Creswell, 2014). First, the survey investigates students' attitudes toward self-directed English learning using mobile apps. Second, it identifies apps frequently used by participants to improve specific English skills (reading, listening, and writing, except spoken). These interviewee-recommended apps would inform the selection of quantitative tools later in the research. Finally, the survey gathers suggestions for college students utilizing online English learning resources.

Data Analysis
The researcher employed a survey with closed-ended questions to gather data from a large group of participants. Mathematical and statistical techniques were then used to analyze the numerical data, which is presented in tables in Appendix A. Additionally, qualitative data may have been collected through interviews to provide deeper insights alongside the quantitative findings, and they are presented in graphs in Appendix B.

Appendix: A
Quantitative Results

Table 01: Do you prefer mobile English learning app that offers a variety of games and interactive activities?

	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	14	16.5%	16.5%	16.5%
	Agree	15	17.6%	17.6%	34.1%
	Neutral	2	2.4%	2.4%	36.5%
	Disagree	6	7.1%	7.1%	43.5%
	Strongly disagree	3	3.5%	3.5%	47%
	Total	40	100%	100%	100%

The table summarizes responses from 40 participants on a 5-point Likert scale statement. Over half (49.6%) agreed or strongly agreed, while only 10.6% disagreed or strongly disagreed. Agreement was highest (34.1%) for "Agreed," with 16.5% strongly agreeing. Neutrality was low (2.4%).

Table 02: What do you think, mobile apps can be a valuable tool for effective English learning for college students?

	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	12	14.1%	14.1%	14.1%
	Agree	21	24.7%	24.7%	38.8%
	Neutral	3	3.5%	3.5%	42.4%
	Disagree	3	3.5%	3.5%	45.9%
	Strongly disagree	1	1.2%	1.2%	47%
	Total	40	100%	100%	100%

The above table summarises those forty participants responded to a 5-point statement. Nearly a third (38.8%) agreed, with some strongly agreeing (14.1%). However, a notable portion (7%) disagreed, and 3.5% each remained neutral or strongly disagreed. Overall, agreement was modest, with a presence of those who disagreed or were neutral.

Table 03: What do you think audio and video lessons in a mobile English learning app is important for learning?

	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	10	11.8%	11.8%	11.8%
	Agree	19	22.4%	22.4%	34.1%
	Neutral	0	0.0%	0.0%	34.1%
	Disagree	7	8.2%	8.2%	42.4%
	Strongly disagree	4	4.7%	4.7%	47%
	Total	40	100%	100%	100%

In this question participants rated a statement on a 5-point scale. Over a third (34.1%) agreed, with some strongly agreeing (11.8%). Disagreement was minimal (8.2% disagreed, 4.7% strongly disagreed). The lack of neutral responses suggests a clearer opinion on this statement compared to others.

Table 04: Have you ever learned English language skills through mobile apps?

	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	5	5.9%	5.9%	5.9%
	Agree	18	21.2%	21.2%	27.1%
	Neutral	4	4.7%	4.7%	31.8%
	Disagree	5	5.9%	5.9%	37.6%
	Strongly disagree	8	9.4%	9.4%	47%
	Total	40	100%	100%	100%

The participants presented with a statement on a 5-point scale, the 40 participants offered a variety of opinions. While some showed agreement (27.1%, with 5.9% strongly agreeing), a nearly equal number (14.1%) disagreed (including 9.4% who strongly disagreed). A neutral group (4.7%) emerged as well. This spread of responses suggests the statement was divisive, prompting some participants to lean

towards disagreement and others towards agreement. The presence of a neutral group further indicates that some participants may have found the statement unclear or requiring more context.

Table 05: Have you ever improved English language skills with a mobile application?

	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	11	12.9%	12.9%	12.9%
	Agree	13	15.3%	15.3%	28.2%
	Neutral	3	3.5%	3.5%	31.8%
	Disagree	7	8.2%	8.2%	40.0%
	Strongly disagree	6	7.1%	7.1%	47%
	Total	40	100%	100%	100%

The analysis of a 5-point Likert scale statement reveals a lukewarm reception from the 40 participants. There wasn't a strong consensus on either agreeing or disagreeing. While over a quarter (28.2%) expressed some level of agreement, a significant portion (15.3% disagreed). A small neutral group (3.5%) further indicates some uncertainty or a lack of clear opinion on the statement.

Table 06: To what extent do you agree with the statement "Mobile learning apps can be a valuable tool for effective English learning for college students"?

	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	12	14.1%	14.1%	14.1%
	Agree	24	28.2%	28.2%	42.4%
	Neutral	1	1.2%	1.2%	43.5%
	Disagree	2	2.4%	2.4%	45.9%
	Strongly disagree	1	1.2%	1.2%	47%
	Total	40	100%	100%	100%

Forty participants responded to a 5-point Likert scale statement, with a clear majority (36.3%) expressing agreement. This breakdown includes 14.1% who strongly agreed and 24.2% who agreed. Notably, the neutral group was very small (1.2%). Disagreement was minimal, with only 2.4% disagreeing and another 1.2% strongly disagreeing. Overall, the results lean heavily towards agreement. While a small portion (1.2%) remained neutral, the vast majority (over a third) agreed with the statement, and very few participants actively disagreed.

Qualitative Results

Table 07: Responses to Interview Question one "Which English language learning apps do you use mostly to improve English language skills?

Respondents	Subjects of Study	Responses
Male and female Participants of first year and second year classes	Pre-Medical and pre-Engineering students	• Some student's told that they use Facebook to incorporate language skills. • Many students said they use WhatsApp and Ticktok to chat with friends, listen music, watch pictures and listen status songs which somehow improve listening

and reading skills.
- Few students said they use Instagram, Facebook, google and YouTube which help them to improve reading and listening skills.
- More number of students use google and YouTube to watch movies.

Table 1 focuses on the core question of the interview. The interview began by directly asking if learners could acquire English skills through mobile apps. Those who answered negatively were then asked a follow-up question to see if they believed mobile phones could still improve their English knowledge in some way. The final outcome of the question was that MELAs are beneficial for improving English language skills.

Table 08: Responses to Interview Question two "Do mobile phone apps aid you learn English language? If yes, what do you improve?

Respondents	Subjects of Study	Responses
Male and female Participants of first year and second year classes	Pre-Medical and pre-Engineering students	- Some student's responses were positive. They use English language apps to incorporate their language skills. - Many students said they use to chat with friends and they use to check spellings and meaning of the words. - Few students said they use to improve listening skills. - More number of students use to watch English movies, English News Channels and listen Cricket Commentary.

The final question explored which specific language skills participants felt could be enhanced by mobile apps. Vocabulary improvement emerged as the most common response, followed by listening skills – with many students mentioning enjoyment of using apps to listen to cricket commentary.

Discussion

The findings suggest that MELLAs can be a powerful tool for college students to engage in self-directed English learning, potentially offering an advantageous alternative to traditional methods. This aligns with Self-Determination Theory (SDT), which posits that intrinsic motivation, fostered by autonomy, competence, and relatedness, leads to deeper learning and engagement. MELLAs provide autonomy by allowing students to learn at their own pace and choose the content that interests them. Apps can also cultivate a sense of competence through gamification elements (points, badges, leader boards) that provide positive reinforcement and track progress. The social features of some MELLAs can foster relatedness by allowing students to connect with other learners and receive peer support.

The use of mobile language learning apps (MELLAs) by college students. The findings suggest that MELLAs offer a valuable source of self-directed learning that fits conveniently into students' schedules (without consuming large chunks of time). Students appreciate the flexibility and engaging features of these apps, making them ideal for supplementing classroom learning (as evidenced by Li F et al., 2023; Nehe et al., 2023). The research highlights the positive impact of MELLAs on vocabulary, listening, reading, and writing skills. However, some drawbacks were identified. For instance, gamification elements, while motivating for some, can be distracting or create a competitive environment that hinders learning (R Li et al., 2021). Additionally, concerns were raised regarding limited content depth, lack of detailed feedback, and the necessity for an internet connection. Interestingly, the study found that using a combination of apps targeting specific skill areas seems most effective. Same drawbacks were discussed by (Soomro et al., 2023) in the involving artificial intelligence (AI) in enhancing communication skills of English language learners. Overall, students perceive MELLAs as beneficial, especially when features cater to their individual needs. However, app design needs improvement to address these limitations and maximize their educational potential. The research suggests that MELLAs can potentially replace rote learning from books, offering students a more engaging and personalized learning experience. Future research should focus on optimizing these apps for learner autonomy and catering to the diverse needs of students across various learning environments, ultimately leading to improved knowledge acquisition.

Conclusion

This study examined mobile language learning apps (MELAs) found these apps to be valuable tools for improving reading, listening, and writing skills. The features and functionalities of MELAs encourage learners to take charge of their studies (autonomous learning) by offering resources and tools that work anywhere, anytime. Smartphones equipped with MELAs allow for practicing skills regularly, setting and tracking learning goals, planning study sessions, evaluating progress, and even correcting mistakes – all contributing to better skill development. Additionally, some MELAs offer self-directed learning options with materials tailored to individual needs, and even facilitate interaction with peers or teachers, making the learning experience more engaging. Based on these findings, the study recommends integrating smartphones and MELAs into English language learning programs. This approach provides students with a flexible and interactive way to develop their reading, listening, and writing skills, promoting independent learning regardless of location or time constraints.

Recommendations

- Future researchers can explore the effectiveness of MELAs in supporting long-term language acquisition and retention English language skills.
- They can explore and assess the importance of offline apps which prove to be helpful for college students. Explore ways to make content accessible and allow students to learn even without an internet connection.
- Researchers can investigate how well MELAs cater to individual learning styles and goals. They can explore the effectiveness of adaptive learning processes and personalized recommendations in improving student engagement and learning outcomes.

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