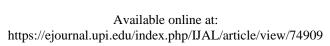
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# Acceptance of learning vocabulary via Mobile-Assisted Language Learning among community college of Qatar foundation students: Quizlet as a tool

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## ABSTRACT

Integrating mobile devices into language learning has transformed vocabulary acquisition by providing learners with flexibility and access to educational resources anytime, anywhere. Mobile-assisted Language Learning (MALL) capitalizes on the widespread use of smartphones and tablets, allowing learners to engage with vocabulary exercises in a more accessible way. Previous research highlights that learners perceive mobile devices as enjoyable tools, and their acceptance is crucial for successful educational implementation. However, limited research exists in the context of Qatar. This study explores the acceptance of MALL among foundation students at the Community College of Qatar, using Quizlet due to its variety of features for vocabulary learning. A qualitative methodology was employed, involving interviews and reflection forms from forty-one participants across four academic levels, with thematic analysis conducted using ATLAS.ti 9. The findings revealed that participants generally had positive attitudes toward mobile applications in education but emphasized the importance of balancing MALL with diverse teaching methods to avoid monotony. Although MALL fosters learner autonomy, challenges such as technical issues, academic dishonesty, and cognitive distraction were noted. Despite these concerns, the study suggests that with proper administrative and educational interventions, these challenges can be mitigated, making vocabulary learning through MALL more effective, engaging, and acceptable to students at the Community College of Qatar.

**Keywords:** Computer-Assisted Language Learning (CALL); Mobile-Assisted Language Learning (MALL); Quizlet; Technology Acceptance Model (TAM); Web 2.0

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#### INTRODUCTION

Computer-Assisted Language Learning (CALL) and e-learning have been widely adopted in K-12 and higher education, proving effective in enhancing students' language skills (Alwahoub, 2020; Alwahoub et al., 2020, 2022). With the rise of mobile devices like smartphones and tablets, there has been a shift from desktop computers to portable devices in education. Educators and students increasingly utilize these devices to improve learning outcomes (Khan et al., 2021). Mobile-

Assisted Language Learning (MALL), a specialized branch of mobile learning, focuses on language acquisition and offers flexibility, allowing learners to engage with materials anywhere (Wu et al., 2012). Zou et al. (2018) highlighted that mobile tools help learners overcome time and space constraints, while Kukulska-Hulme (2006) emphasized their role in connecting learners, teachers, and content. Early examples of MALL include Twarog and Preszlenyi-Pinter's (1988)

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telephone-based student support and Callan's 1994 study on MALL (Burston, 2013).

Also, several academic institutions were obliged to use mobile phones in the learning process because digital media prevailed in the lives of students and teachers alike (Rideout et al., 2010). However, the use of technology has been on the rise recently (David & Roberts, 2017), and English has been considered the modern Lingua Franca in most countries worldwide (Rowley-Jolivet, 2017). Moreover, learners nowadays can be called Digital Natives (a term that defines those born after 1980) as digital technology has been used by those learners from early childhood to adolescence (Prensky, 2001).

Several researchers have linked improvements in student learning performance to technological advancements in education (Burston, 2015; García Botero et al., 2019; Song & Fox, 2008; Zou et al., 2018). Başoğlu and Akdemir (2010) attributed the popularity of mobile phones in education to their increasing features and affordability, suggesting that engaging vocabulary apps have motivated learners to use mobile phones for language learning. Quizlet, a tool specifically designed for vocabulary learning, has gained attention for its Flashcards feature that motivates students to learn new vocabulary (Ashcroft & Imrie, 2014). Nation and Nation (2001) found that flashcards help learners connect the form and meaning of words, making memorization more effective. Quizlet, launched in 2005, is also wellsuited for autonomous learners. fostering independence (Korlu & Mede, 2018; Sanosi, 2018). Research indicates that most students find Quizlet enjoyable and engaging (Anjaniputra & Salsabila, 2018; Hikmah, 2019; Lander, 2016), and it has been shown to reduce spelling errors (Kálecký, 2016) while serving as an effective learning tool (Andarab, 2017).

However, an array of researchers analyzed the impact of MALL on learning vocabulary, which yielded a variety of findings in this domain. Lei et al. (2022) concluded that MALL played a pivotal role in shaping positive attitudes toward vocabulary acquisition among EFL learners and enhancing their capacity for self-regulated learning. Despite initial skepticism, learners experienced significant lexical expansion through the utilization of diverse mobile applications (Lei et al., 2022). While a substantial corpus of literature consistently emphasizes the invaluable assistance provided by MALL in the domain of vocabulary acquisition (Chen et al., 2019; Lin & Lin, 2019; Ono et al., 2015), certain investigations revealed adverse effects of MALL on students' receptiveness to learning and overall educational outcomes. This critique is ascribed to diverse constraints, including limited screen connectivity challenges, dimensions, apprehensions, and difficulties associated with mobile text input (Kim et al., 2017; Lai & Zheng,

2018; Stockwell, 2010; Thornton & Houser, 2005). Nonetheless, the efficacious integration of MALL pivots on an initial evaluation of learners' readiness to embrace and utilize such technologies within the language acquisition milieu (Hsieh et al., 2017).

Therefore, the researchers aim to focus on the key element: the learners' acceptance of MALL in acquiring new vocabulary. The researchers want to focus on the vocabulary element because the most significant volume of published articles, teacher blogs, and apps related to mobile language learning target vocabulary acquisition and grammar study (Pegrum, 2014). Digital learning has also been an integral part of the learning process in Oatar, and applications like Blackboard and Banner are the official channels through which learners can interact with teachers at Qatar University and the Community College of Qatar (Elhassan & Kabaha, 2019). However, the primary purpose of this study is to investigate learners' acceptance of technology in the learning process when MALL is applied in vocabulary. acquiring new Moreover, researchers plan to come up with a set of guidelines for teachers and policymakers on the impact of MALL on learners' attitudes towards mobile learning at the Community College of Qatar. Hence, the study sought to answer the following research question: How do learners perceive using MALL as a tool that may impact their acceptance of technology in the learning process?

#### **Literature Review**

The emergence of MALL represents a pivotal juncture in the realm of language education, reshaping traditional paradigms and offering unprecedented opportunities for language acquisition and pedagogy. As mobile technologies become increasingly ubiquitous, their integration into language learning environments has sparked interest among educators, researchers, and learners alike. At the heart of this burgeoning field lies a complex web of factors influencing the acceptance and efficacy of MALL as a pedagogical tool.

# Mobile-Assisted Language Learning Acceptance (MALL)

El-Masri and Tarhini (2017) contended that prevailing technology acceptance models and theories have not undergone extensive scrutiny in non-Western or developing nations, with a specific reference to Arab countries in general (Alalwan et al., 2015; Kamoun & Almourad, 2014; Zhao et al., 2012) and Qatar in particular (Al-Shafi & Weerakkody, 2010; Alshare & Mousa, 2014; El-Masri & Tarhini, 2017; Musa et al., 2015). However, it is believed that Qatar has progressed in the field of e-learning adoption, as this can be inferred from the fact that Qatar has invested a lot in e-learning during the past decade as part of an aspiring strategy to develop its education system

(Hassan & Fook, 2014; Weber, 2010). Also, in 2004, Qatar launched Information and Communication Technology Qatar (ICT Qatar), which is responsible for initiatives related to elearning and mobile learning (Al-Shehri, 2014).

However, a myriad of research studies have investigated the acceptance of MALL in other contexts around the world, revealing findings that span from positive to negative attitudes toward its utilization. Azli et al. (2018) concluded that most respondents exhibited overall agreement on both constructs of perceived usefulness (PU) and perceived ease of use (PEoU) of MALL. Moreover, Haleman and Yamat (2021) unveiled a positive perception of e-learning among English as a Second Language (ESL) primary school students in their findings, indicating a high level of acceptance. This acceptance was attributed to several e-learning features, including its flexibility, user-friendliness, and the students' positive attitudes towards current usage and future intentions to utilize it (Haleman & Yamat, 2021). Also, Ali et al. (2020) stated that the participants in their study unanimously perceived MALL as an appealing and user-friendly tool. They asserted that MALL allows them to engage in learning activities unrestricted by spatial and temporal constraints. In addition, several researchers have concluded that learners have accepted MALL due to its variety of tools, ease of use, and effectiveness (Al-Emran et al., 2016; Annamalai et al., 2022; Özcan, 2022; Ta'amneh, 2021).

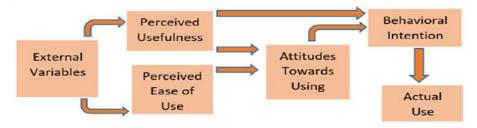
On the other hand, several researchers highlighted the unintended consequences of MALL, revealing that participants encountered difficulties during its use in the learning process. These

challenges and limitations led to negative attitudes toward MALL as a delivery tool (Azli et al., 2018; Chik, 2014; der Poorten-Sawyer, 2021; Ozer & Kılıç, 2018; Stockwell, 2022). Stockwell (2022) identified four aspects contributing to the unacceptance of MALL among learners. These factors include pedagogical, socioeconomic, academic, and learning environment management aspects (Stockwell, 2022).

## Technology Acceptance Model (TAM)

TAM is an information systems theory that explains how to encourage users to accept and utilize new technology (Davis, 1989). Learners might not utilize a useful application if this application is believed to be difficult to use. Fred D. Davis (1989) concluded that "usefulness" and "ease of use" form major factors that could have an impact on any system (Figure 1). However, learners tend to use an application that can be useful in performing their tasks. As the creator of any technology might believe that their product is useful and easy to use, potential users determine whether a technology is accepted (Thompson, 2017). Hence, the researcher's main focus is on users (learners) in order to know to what extent they accept using MALL to acquire new vocabulary. Moreover, TAM suggests that when a technology is presented to users, several factors will have an impact on their decision about how and when they will use that technology (Mavuru & Ramaila, 2022). External variables such as age, gender, and social influence, as shown in Figure 1, are essential factors that will impact learners' attitudes toward technology (Davis et al., 1989).

**Figure 1** *Illustration of Technology Acceptance Model (Davis et al., 1989)* 



# Quizlet as a Tool of Delivery

However, several researchers investigated the acceptance of Quizlet as a tool of delivery in different contexts. In Japan, Dizon (2016) noticed a high level of acceptance of Quizlet among students who are trying to learn the academic vocabulary list in terms of usefulness, ease of use, and intention to use Quizlet. Also, Çeçen (2020) concluded that low-level students in Turkey are in favor of Quizlet as a delivery tool. In Thailand, Sangtupim and Mongkolhutthi (2019) reported that English as a Foreign Language (EFL) students were "satisfied

with the use of Quizlet in vocabulary learning because it helps them remember vocabulary effectively within less time than traditional methods" (Waluyo & Bucol, 2021, p. 166). In Saudi Arabia, a nation sharing commonalities with Qatar in terms of culture, backgrounds, and social settings, Alhadiah (2020) concluded that both quantitative and qualitative analyses of his study elucidated that students exhibited favorable attitudes towards the utilization of Quizlet as a tool for enhancing vocabulary acquisition.

On the other hand, some researchers shed light on the side effects of utilizing Quizlet in learning. Lam et al. (2018) investigated the attitudes of seventh- and eighth-grade students in the United States toward using Quizlet to acquire Chinese language skills. The study's outcomes indicated that participants were reluctant to incorporate Quizlet into their daily or home-based language learning routines (Lam et al., 2018). Also, in Oman, another Arab Gulf country that shares several commonalities with Qatar, Al-Malki (2020) concluded that the participants expressed dissatisfaction with the exclusive emphasis on vocabulary within Quizlet. They suggested that Quizlet should integrate additional skills, like speaking, grammar, and writing, to facilitate a more natural and comprehensive approach to vocabulary learning (Al-Malki, 2020).

Moreover, it is noted that the utilization of Quizlet solely as the primary tool of delivery can be a limitation of this study, so it is imperative to address several pertinent justifications. Firstly, it is noteworthy that Quizlet serves as the principal MALL tool at the Community College of Qatar (CCQ), underscored by its official Quizlet bank, which is available to all users. This institutional endorsement lends credibility to the selection of Quizlet as the primary platform for vocabulary acquisition in this context. Moreover, it is essential to acknowledge that while multiple vocabulary platforms exist, their functionalities and features are largely homogeneous. Hence, the choice of Quizlet as the exclusive tool does not significantly deviate from the potential outcomes achievable with alternative platforms. Importantly, it is imperative to recognize that Quizlet, albeit employed singularly, serves as a means to an end rather than the ultimate objective. The overarching aim of our study remains the exploration and validation of the acceptance of MALL in vocabulary acquisition. Therefore, the emphasis lies not solely on the choice of platform but rather on the broader pedagogical implications of integrating technology into language learning contexts. However, it is crucial to acknowledge the limitation posed by the reliance on a single application, as duly noted in subsequent sections of our manuscript. This acknowledgment underscores our commitment to transparency and scholarly rigor in delineating the scope and constraints of our research endeavors.

#### **METHOD**

The researchers adopt qualitative methods in the research procedure. Denzin and Lincoln (2011) defined Qualitative research as "a situated activity that locates the observer in the world. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural

settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them" (p. 3). The researchers opted for this approach due to the nature of the research question, which needs a deep investigation of students' attitudes towards using MALL. The researchers collected the data in an authentic one-to-one setting where teaching and learning occur naturally. Also, the responsible for collecting, researchers are interpreting, and analyzing the data, which is not quantitative in nature. The participants received open-ended questions in order to guarantee their freedom of expression. RePass (1971) contends that open-ended questions inquire about attitudes that occupy the respondents' thoughts during the interview, suggesting that these attitudes were significant both before and after the question was posed. Moreover, participants might not express their ideas when they are provided with choices in a structured survey. Hence, the researchers collected data from two sources, including interviews and reflection forms, to ensure that all of the students' inputs and ideas were covered.

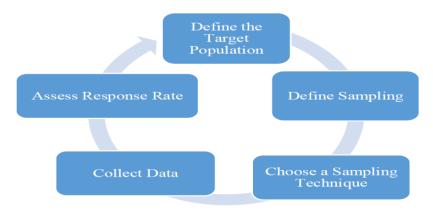
# **Participants**

Foundation students at the English Language Center (ELC) at the CCQ form the population of this research. The researchers chose this audience because they belong to different backgrounds and represent different ages. The main researcher works as a full-time lecturer at the ELC and is familiar with the students and the settings. Yin (2003) assured that being an insider when doing research can be of great value because perceiving reality by an insider can contribute to accurately depicting any phenomenon in a case study. Rubin and Rubin (2005) stated that interviewees might assume that when the researcher is an insider, he may be more sympathetic to them and can understand their experiences. Students who join the English Language Center at the Community College of Qatar are divided into four different levels depending on their English language proficiency, where students go into a placement test in order to be enrolled in the level that matches their proficiency. Also, participants come from all levels. including level one, level two, level three, and level four. However, the target population is quite significant as the number of students can go up to more than four hundred students. Under the circumstances, the researchers approached one class from each level to ensure that data was collected from respondents from all levels. In order for a sample to be representative, it should look like the population from which it was chosen (Engel & Schutt, 2011). Depending on enrollment rates, fifteen to twenty students are registered in every class. The researchers adopted convenient sampling, in which students who were willing to participate were approached.

However, probability and non-probability sampling are the two major types of sampling techniques (Taherdoost, 2016). The difference between these two types is that in probability sampling, each individual has an equal chance of being included in a sample. On the other hand, in non-probability sampling, no equal chance of participation is guaranteed for each individual in the population (Taherdoost, 2016). Non-probability is used in this research as the researcher does not have the logistics, time, and tools to teach the whole targeted population at the ELC. Dornyei, Z. (2007)

stated that Convenience Sampling is the most common sampling strategy because it is largely practical as the researcher uses those who are available. Another feature that contributes to the effectiveness of this sampling approach is that it relies on participants who are willing to participate, and this forms a suitable ground for collecting a rich dataset (Dornyei, 2007). The researchers stopped collecting data when similar responses emerged, and no new inputs or data were observed. The researchers follow the steps shown in Figure 2 in performing the sampling procedure of this research.

Figure 2
Sampling Process Procedure



## Demographic profile of the participants

The researchers invited forty-one students in the foundation program at the CCQ for an interview, and 39 accepted the invitation. Participants belonged to four different levels of the foundation program as shown in Figure 3. Participants belonged to a variety of backgrounds, as shown in Figure 3. Thirteen participants were employed, and twenty-six unemployed. However, twenty-one participants were females, and eighteen participants were males. Moreover, the participants' ages varied between eighteen and thirty-seven years old. In addition, most participants were from the capital of Qatar (Doha, thirty participants), while only nine were from other cities around Qatar. On the other hand, all approached students approved doing the reflection forms (forty-one participants), in which all participants were given open-ended questions to express themselves freely as their names were anonymous to the researcher. The analyses of the participants' backgrounds in terms of age, employment status, and gender show that the employed and older group of students are facing fewer difficulties than those of the younger and unemployed group. Also, most participants recommend more training on the application before utilizing it in the learning process. However, the researchers will elaborate more on these challenges and recommendations in the concluding section of the findings.

Figure 3
Demographic Profile of the Participants

			L1 Interviews 11 151	L2 Interviews 10 127	L3 Interviews	L4 Interviews 11 11 161	Totals
< ⇔ Between 18 and 22 years o	. 🔷 5	<ul><li>⊕ 29</li></ul>	7	5	7	3	22
<⇒ Employed	♦ 13	⊕ 13	4	5	1	3	13
<⇒ Female	<> 1	<ul><li>⊕ 21</li></ul>	11	10			21
<⇒ Male	<> 1	<ul><li>⊕ 18</li></ul>			8	10	18
<> More than 22 years old	<> 6	<ul><li>⊕ 12</li></ul>	4	5	1	2	12
< <p>≪ Refused to do the interview</p>	<> 1	<ul><li>□ 2</li></ul>			1	1	2
<⇒ Students from Doha	<> 1	⊕ 30	10	7	7	6	30
Students from other cities	<> 3	<ul><li>9</li></ul>	1	3	1	4	9
<> Unemployed	<> 1	<ul><li>⊕ 26</li></ul>	7	5	7	7	26
Totals			44	40	33	36	153

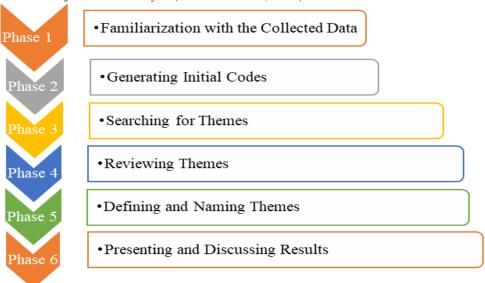
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## Data collection and analysis

The researchers gathered data through interviews and reflection forms, adapting interview questions from previous studies (Gacem, 2016; Khabiri & Khatibi, 2013; Nurmayawati, 2019). They conducted face-to-face semi-structured interviews, favoring open-ended questions to capture complex data (Rubin & Rubin, 2005), and used probing and follow-up questions (Fox, 2009) based on prior research (Bowles, 2021; Rosell-Aguilar, 2015; Winchester, 2015). Reflection forms included general questions about participants' age, gender,

and academic level, followed by open-ended questions regarding classmates' acceptance of technology in learning. The items were adapted from studies by Gürkan (2018) and Korlu & Mede (2018). For data analysis, the researchers utilized a thematic analysis approach following Braun & Clarke's (2019) six-step framework, as outlined in Figure 4. This combination of interviews and reflection forms provided a robust, qualitative dataset for examining participants' perspectives on educational technology.

Figure 4
Six Phases of Thematic Analysis (Braun & Clarke, 2019)



The researchers employed ATLAS.ti 9 software for data analysis, which was recognized for its systematic and efficient capabilities. Using descriptive coding, they generated 217 codes from transcribed interviews and reflection forms to detect patterns and categorize data as shown in Figure 5. According to Saldaña (2013), these patterns emerge through similarities, differences, frequency, sequence, and causation. The researchers identified 35 themes and patterns from the initial codes,

consolidating them to classify data for deeper meaning. This systematic coding process enabled the researchers to group, relink, and organize the data, facilitating clearer thematic insights. By closely examining the relationships among themes, they refined the data categories, ensuring they became well-defined and distinct, as described by Charmaz (2014). The process allowed for the stabilization and differentiation of emerging themes, offering a structured framework for further analysis.

Figure 5
Initial Coding and Emerging Themes on ATLAS.ti 9



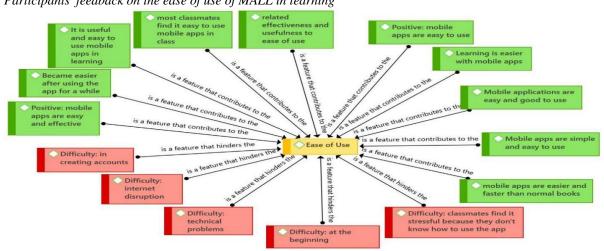
#### FINDINGS AND DISCUSSION

The qualitative data analysis of participants' acceptance of MALL and Quizlet disclosed attitudes, perceptions, and behaviors toward these technologies, focusing on usefulness, accessibility, and ease of use. It identified patterns, trends, and disparities in mobile learning acceptance, revealing the extent to which these tools are embraced in educational environments.

#### Ease of Use

Figure 6 illustrates participants' responses about the user-friendliness of mobile applications in education, analyzed via ATLAS. ti 9. Thematic patterns reveal that most participants expressed positive views, finding the applications "simple and easy to use" within their learning experiences.

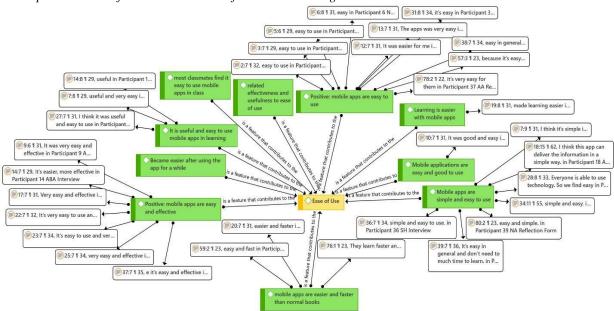
Figure 6
Participants' feedback on the ease of use of MALL in learning



Conversely, certain participants encountered challenges while utilizing mobile applications within the educational setting. These challenges encompass technical issues, interruptions in internet connectivity, unfamiliarity with the utilized application, complexities in establishing accounts, and an initial struggle in navigating the application. However, Figure 7 shows participants' positive

quotations about the ease of use, and some of their responses were as follows: "I think it was useful and easy to use"; "The app was very easy"; "It is easy to use and effective'; "It is easy in general and does not need much time to learn"; "Easier and faster"; "I think this app can deliver the information in a simple way"; "Everyone is able to use technology"; and "made learning easier."

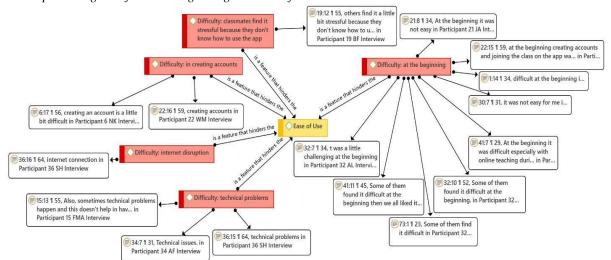
**Figure 7**Participants' Positive feedback on the use of MALL in learning



Nevertheless, Figure 8 illustrates participants' unfavorable remarks regarding usability, with their responses articulated as follows: "Creating an account is a little bit difficult,"; Sometimes technical problems happen, and this does not help in having

fun"; "It was challenging at the beginning"; "Some classmates found it difficult at the beginning then we all liked it"; "Others find it stressful because they do not know how to use it"; "At the beginning, it was not easy" and "Internet connection issues."

**Figure 8**Participants' negative feedback regarding the Ease of Use



In summary, the qualitative analysis of the gathered data in this research phase reveals a confluence of a substantial volume of favourable remarks and a limited number of unfavourable comments concerning the ease of use of mobile applications in the learning context. This trend is underscored in Figure 9, which delineates the precise count of participants' perspectives on usability. During interviews, 26 comments

highlighting challenges in employing applications in the classroom were noted, juxtaposed with a noteworthy 128 affirmative comments within the same domain (Figure 9). Furthermore, reflection forms manifested merely three comments pertaining to the challenges in mobile application usage, in stark contrast to 45 positive comments addressing the same facet.

Figure 9
Participants' feedback on the ease of use in numbers

			[ Interviews	Reflection Forms	Totals
Difficulties of using mobile apps in the classroom	♦ 9	<u>n</u> 21	20	1	21
☼ Difficulty when using the app for the first time	♦ 3	··· 8	6	2	8
◇ Positive: mobile apps are effective, helpful, fun, and easy to use	♦ 65	<u>173</u>	128	45	173
Totals			154	48	202

#### Usefulness

During the interviews, most participants delineated various attributes in mobile applications conducive to enhancing learning effectiveness. Most interviewees demonstrated a capacity to articulate attributes pivotal to optimizing the learning process through mobile applications. These identified attributes encompassed multifarious dimensions, including but not limited to facilitating writing proficiency, improving spelling, pronunciation, and listening skills, aiding in examination preparation, fostering the comprehension of new vocabularies,

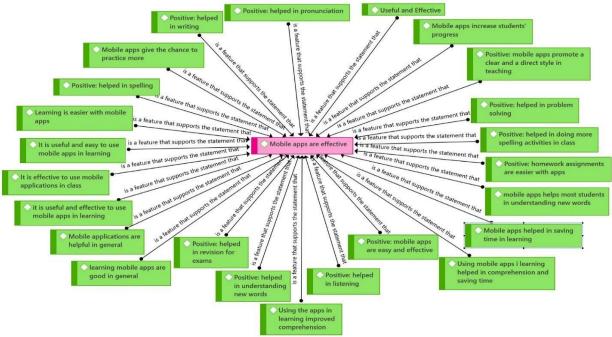
saving time, problem-solving facilitation, and augmenting students' academic progression. Furthermore, participants underscored the inherent efficacy of mobile applications in affording learners increased practice opportunities, along with streamlined facilitation of homework assignments. This is supported in Figure 10 where participants highlighted key features that are integral to the heightened effectiveness of employing mobile applications in the educational milieu, such as:

"I think it's useful and effective because it is easy to use and the style is direct and clear" Participant 2

AF. "It is easy to use and very effective because it helped in solving several problems such as spelling exercises" Participant 3 HBJ. "We can do more spelling activities with mobile applications" Participant 9 AM. "Mobile apps make it easy to solve homework assignments" Participant 15 FMA. "Using the apps is fast and safe because with COVID-19 we can protect our health by staying

away from each other" Participant 18 AMS. "Using mobile apps makes learning faster and saves time" Participant 14 ABA. "Using mobile apps is very easy and effective" Participants: 9 AM, 14 ABA, 17 ZA, 22 MW, 23 BAJA, 25 BSA, and 37 AA. "Using mobile apps improved comprehension" Participant 13 AFS.

**Figure 10**Participants' feedback on the usefulness of MALL



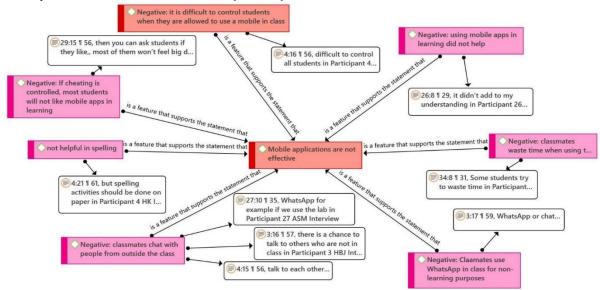
On the other hand, some participants highlighted the main features that could hinder the effectiveness of using mobile applications in learning in Figure 11, such as:

"But spelling activities should be done on paper because we need it in everyday life" Participant 4 HK. "Just control cheating and talking to others during class, then you can ask students if they like, most of them won't feel big difference" Participant 29 AB. "However, I think it's difficult to control all students. Teachers should be strict or there should be an assistant for him" Participant 4 HK. "It was strange feeling and I think it didn't add to my understanding. I think the student should be given the choice. For someone in my age, I prefer books and paper things" Participant AMJA. "Some students try to waste time. Yes, they ask for help in everything. Even in charging the phone. They don't try to do things on their own. The issue is that if 2 or 3 students do this, the class will be interrupted" Participant 34 AF. "Maybe if we go to the computer

lab it will be better. Students can't chat on WhatsApp for example if we use the lab. So, we focus more when using the lab" Participant 27 ASM. "They are happy in general but some of them don't take it seriously. Because there is a chance to talk to others who are not in class. When you have a mobile in hand, you can WhatsApp or chat with others during class" Participant 3 HBJ.

To sum up, notwithstanding the expression of unfavorable feedback by specific participants regarding the effectiveness of mobile applications in the educational context, a prevailing consensus among the respondents highlights an array of features poised to alleviate potential challenges that might compromise the efficacy of incorporating mobile applications into the learning paradigm. This contention is substantiated through empirical evidence derived from the comparative scrutiny of Figures 10 and 11, wherein a conspicuous dichotomy surfaces in the frequency of affirmative and negative observations concerning this subject.

Figure 11
Participants' views on what hinders the usefulness of MALL

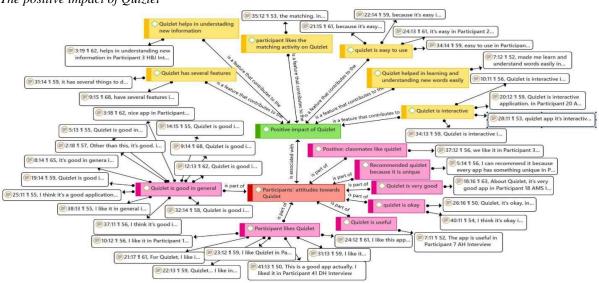


# Quizlet Acceptance

The responses to the interview questions regarding the participants' acceptance of Quizlet as a tool of delivery indicated that most students liked the application in general, although some of them mentioned some limitations and challenges that would make the application perfect if resolved permanently. In Figure 12, it can be noted that participants' positive feelings about Quizlet are associated with the positive impact of this

application on the learning process. Most participants liked Quizlet in general and believed that it was unique and useful, and they would recommend this application to others. In addition, most participants highlighted several features in Quizlet that can contribute to the positive impact of this application. Those features can be summarized as follows: Quizlet is interactive, helpful, easy to use, and has a variety of features that can make learning new vocabulary easier.

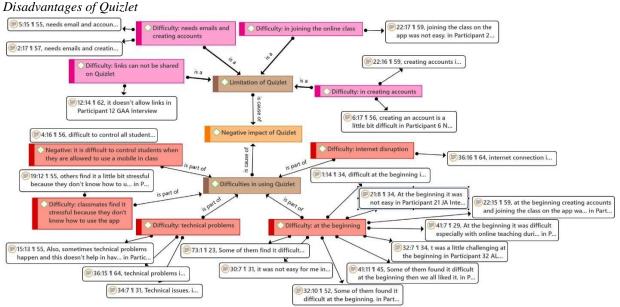
Figure 12
The positive impact of Quizlet



However, although participants mentioned several difficulties and limitations, almost half of those difficulties are not related to Quizlet directly but to technology in general. Figure 13 shows that some participants faced difficulties with internet

interruptions, technical issues, using the application at the beginning, and having the class fully controlled by the teacher. These issues are not related to the core of the application, Quizlet, as these issues can be found in any other platform. On the other hand, a few numbers of participants highlighted some limitations in the application, such as: "Links can't be shared on Quizlet,"; "Quizlet needs emails to create accounts,"; and "It's difficult to create accounts and to join the online class".

Figure 13

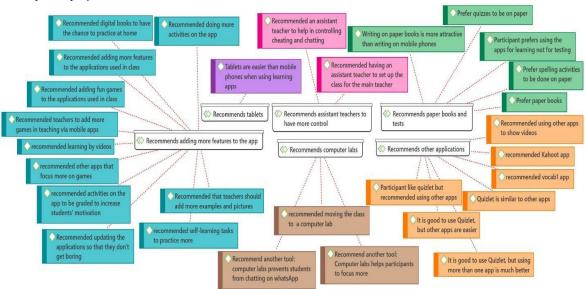


## **MALL Acceptance**

During the interviews and in the reflection forms, participants were asked about their recommendations and preferences regarding their acceptance of MALL in the learning process. Their inputs can be summarized as follows: adding more features to the currently used application or using other applications, using tablets or computer labs instead of mobile devices, having an assistant teacher in class in order to have more control over

the class, and using paper books and tests. This is supported in Figure 14, where participants came up with illuminating perspectives on what can be done to improve the learning experience via mobile applications. In terms of the features that should be added or improved, several participants suggested embedding videos in the application, adding more competitive games, augmenting visual items in the application, and applying constant updates to the application so that it does not get monotonous.

**Figure 14**Participants' preferences and recommendations



A few students suggested using tablets or computer labs instead of mobile devices. Their rationales for this suggestion were due to the several options that are available in tablets and labs and cannot be found in mobile devices, such as disallowing students from chatting via WhatsApp or any other social media platform, being user-friendly and easier than mobile devices, and having more control over the students by the teacher. The notion of providing an assistant teacher in the classroom was raised by some students who proposed that this would save time, as the assistant teacher can set up the class for the main teacher in advance and support the teacher in having more control over the class; as the assistant teacher can play a pivotal role in observing and helping the students when facing any technical, pedagogical, and learning difficulties.

However, the conventional methodology of using paper books has its audience among the participants of this research. Some participants mentioned that they prefer quizzes to be performed on paper, while others suggested that writing on paper is much more attractive than typing on devices, and the auto-correction feature in mobile devices makes participants too dependent on the application itself in order to come up with correct spelling. Also, one participant related her preference for using paper books to her age as she belongs to the old school, where mobile devices were not even available. This is supported by Participant 26 AM's statement: "I think the student should be given a choice. For someone my age, I prefer books and paper things". Also, another participant shed light on the importance of using a pen and paper: "The books are important and we need to still use pen and paper," Participant 38 SA.

On the other hand, it is noteworthy that many students advocate for judicious integration of mobile applications into the learning milieu, positing that such an approach would imbue the learning experience dynamically and mitigate monotony. Furthermore, a substantial number of students desire enhanced functionality within the application, specifically requesting additional games, quizzes, and videos. Some students put forth the suggestion of employing pen and paper for writing and spelling assignments as a means of honing their skills. Concerns related to the potential for cheating in graded assessments when mobile phones are permitted in the classroom are articulated by a subset of students, prompting recommendations for including assistant teachers to monitor and mitigate such instances. Additional suggestions include using tablets and computer labs to curtail social media distractions and minimize opportunities for cheating. The advocacy for diversifying the use

of applications throughout the course duration is also echoed. Moreover, in expanding the scope of mobile applications to encompass diverse learning domains, educators are advised to solicit and consider student opinions in the decision-making process. Furthermore, students from diverse backgrounds, encompassing variations in age, employment status, and gender, express a collective recommendation for the provision of more comprehensive training on the utilization of applications. It is suggested that this training be strategically offered at the outset of the course to enhance proficiency and familiarity with the applications among students.

## MALL vs. Quizlet

The examination of the acceptance and perceived utility of MALL and Quizlet in education revealed diverse perspectives. Participants suggested improvements for MALL, such as adding features, and visual aids, and using assistant teachers to manage classroom issues. They emphasized the need for student input and thorough training to enhance mobile learning's effectiveness. Regarding Quizlet, participants expressed positive views on its interactivity, ease of use, and effectiveness in vocabulary learning. Despite issues like internet interruptions and technical difficulties, these were attributed to broader technological problems rather than Quizlet itself. However, some participants noted limitations, such as link-sharing restrictions and account creation complexities, suggesting areas for improvement. Overall, the findings reveal nuanced attitudes toward digital tools. MALL's acceptance highlighted the importance of strategic implementation and participant recommendations, while Quizlet's feedback underscored its benefits in vocabulary acquisition, with usability challenges offering opportunities for refinement in its design and usage.

#### **Discussions**

The research question in the study: "How do learners perceive using MALL as a tool that may have an impact on their acceptance of technology in the learning process?" was addressed by the interviews and reflection forms. The items in the reflection forms and the questions in the interviews were grouped and coded on ATLAS.ti 9 in order to be analyzed. The researchers looked for themes and patterns that may arise from the collected codes. After analyzing those patterns and themes, the findings indicated a wide preference for using mobile applications in the learning process among foundation students. However, some participants highlighted a few challenges and difficulties that

may arise when using mobile applications in the learning process, but those challenges were insignificant compared to the numerous emerging positive aspects of using mobile applications in the learning process.

However, the outcomes of this research are in concordance with the research of Burston (2015), Chen et al. (2019), García Botero et al. (2019), Lin and Lin (2019), Ono et al. (2015), Song and Fox (2008), and Zou, Li, and Li (2018), collectively affirming the positive correlation between technological advancements and improved learning performance. Also, the empirical outcomes gleaned from the meticulous analysis of the collected data receive substantiation through the lens of the TAM, as formulated by Davis (1989). This theoretical framework underscores the pivotal significance attributed to two salient dimensions: ease of use and usefulness, which, in turn, wield considerable influence over the extent to which learners embrace MALL. Furthermore, it is noteworthy that the very tenets of the TAM, in accordance with the present inquiry's results, unveil the intricate interplay of external factors, including age, gender, and social influences, in shaping the learners' propensity to accept MALL. This is supported in the findings of this study, where the background of participants played a role in their preferences and acceptance of MALL as the employed and older cohort of students exhibits a lower incidence of challenges compared to their younger and unemployed counterparts. This demographic disparity underscores disparities in technological preparedness adaptability. Furthermore, a prevailing consensus emerges among participants, indicating a collective call for additional training on the application before its integration into the learning process. This unified recommendation underscores the perceived significance of comprehensive preparatory measures to enhance user competence and efficacy in the utilization of the application for educational purposes. Therefore, this study's conclusions harmoniously with the TAM's premises, reaffirming the theory's applicability and contribution to the understanding of technology adoption in the context of language learning. Moreover, the findings of this research showed that MALL is highly accepted by most participants who experienced its usefulness and ease of use in the learning process. This comes in line with the findings of Al-Emran et al. (2016), Ali et al. (2020), Annamalai et al. (2022), Azli et al. (2018), Haleman and Yamat (2021), Lei et al. (2022), Özcan (2022), and Ta'amneh (2021).

On the other hand, only a small number of participants in this study referenced obstacles and constraints affecting their acceptance of MALL,

including but not limited to technical difficulties, time wastage, complexity of features, preference for traditional paper materials, inadequate features such as spelling assistance, and distractions arising from the easy accessibility of social media platforms when mobile devices are permitted in the classroom. These observations align with findings from various studies conducted by Azli et al. (2018), Chik (2014), der Poorten-Sawyer (2021), Kim et al. (2017), Lai and Zheng (2018), Ozer and Kılıç (2018), Stockwell (2010), Stockwell (2022), and Thornton and Houser (2005).

Furthermore, the findings of this study resonate harmoniously with a wealth of existing literature, underscoring the multifaceted utility and efficacy of Quizlet as an educational tool, particularly in vocabulary acquisition. The positive reception of Quizlet is reinforced by empirical evidence suggesting its interest value for students, and this is supported by the findings of Anjaniputra and Salsabila (2018), Hikmah (2019), and Lander (2016). Also, the study not only corroborates these sentiments but also extends the discourse by shedding light on Quizlet's role in minimizing spelling errors in tests, as stated in Kálecký' s (2016) research, and its overarching effectiveness as a pedagogical instrument as concluded by Andarab (2017). Moreover, the findings of this study resonate with the research conducted on Quizlet by Ceçen (2020) in Turkey, Dizon (2016) in Japan, and Sangtupim and Mongkolhutthi (2019) in Thailand. The high acceptance observed in Japan and Turkey, as well as the satisfaction reported in Thailand, are supported by the findings of this study, and this collectively underscores the global relevance and adaptability of Quizlet as a versatile tool in diverse linguistic and educational settings. The participants in this study consistently expressed a strong intention to utilize Quizlet in the future, a trend that diverges from the observations made by Lam et al. (2018). In contrast to their findings, where students exhibited reluctance towards the future adoption of Quizlet, the participants in our study demonstrated a pronounced inclination towards incorporating Quizlet into their ongoing learning endeavors. However, this contradiction between the results of the two studies could be attributed to the age of the participants. Lam et al.'s (2018) study focused on relatively young participants aged twelve to fourteen years old, while the sample population in the present study was older, ranging from eighteen to thirtyseven years old. Moreover, the participants of this study advocated for the integration of additional features into Quizlet to enhance its appeal among learners. This viewpoint aligns with the findings of Al-Malki (2020), who similarly concluded that

participants in his study recommended the incorporation of supplementary skills such as speaking, grammar, and writing into Quizlet. By expanding its functionalities to encompass a broader spectrum of language acquisition skills, Quizlet has the potential to offer a more holistic and immersive learning experience for users (Al-Malki, 2020).

#### **CONCLUSION**

The main objective of this study was to investigate learners' acceptance of MALL at CCQ, with Quizlet serving as the primary delivery tool. This study concluded that various factors can influence the acceptance of MALL among foundation students, where the researchers found that the unique needs and preferences of foundation students at CCQ can shape their attitudes toward the use of mobile technology in educational settings. Learners may vary in their digital literacy skills, and the ease with which students can navigate and utilize language learning applications or platforms on mobile devices will impact their acceptance. Therefore, adequate training and support on the utilization of digital literacy can be crucial. However, learners may favour different learning styles, and educators and educational institutions must adopt the methodology that suits the learners according to their needs. Furthermore, the acceptance of MALL among foundation students is a complex interplay of technological, pedagogical, and cultural factors. Strategic and well-designed integration of MALL into language learning curricula, coupled with the responsive addressing of foundation students' distinctive requirements through regular assessments and adjustments informed by students' feedback, can further refine the approach and enhance acceptance of MALL over time. MALL has become an integral part of the learning process, and the technology acceptance phenomena is now a must-study field as learners' attitudes towards any proposed method form the determining factors that help educators and policymakers decide whether to utilize this proposed method or not. A limitation that should be admitted in this study is that the targeted participants were from one college in Qatar. However, future research can extend the scope to include several institutions to ensure that the sample is more comprehensive and reflective. Moreover, although this research covered students' acceptance of mobile applications in learning, only one application has been used in the learning process. So, it is recommended that more than one application be used in future research.

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