Learners' Autonomy and Mobile Assisted Language Learning (MALL): Perceptions of Undergraduate Students

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Mobile-Assisted Language Learning (MALL) has emerged as a promising methodology to enhance learner's self-sufficiency in the domain of language teaching and learning process. This research paper aimed to examine the influence of MALL on the development of learners' autonomy in undergraduate students, enrolled at the University of Malakand, Pakistan. The study is based on two distinct premises, namely: examining learners` attitude towards the influence of MALL on the learner's autonomy, and understanding learners` perceptions about techniques for independent learning. The study utilized Connectivism as a theoretical framework for the conducted questionnaire survey, as well as, the thematic analysis of open-ended responses, including data collection and analysis. In addition, the researchers also used random sampling technique to gather survey responses for the proposed research on 'Learners' Autonomy and Mall: Perception of Undergraduate Students'. Consequently, 78 students participated in the survey from University of Malakand. The results of the survey show that MALL has positive impact on learners` autonomy by providing learners the prospect to engage in autonomous learning and adapted language practice. Further, the results also indicate that certain themes, namely personalized learning, adaptive technologies, and feedback mechanisms, are highly regarded by participants as means of adopting learner autonomy. The findings of the survey indicate that the utilization of MALL has a beneficial effect on the development of learner autonomy in undergraduate students enrolled at the University of Malakand. This research adds to the importance of MALL in ESL classroom by emphasizing its capacity to promote learner independence. Finally, the study offers valuable perspectives for teachers and curriculum developers to enhance MALL resources and approaches.

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INTRODUCTION

Mobile technologies provide many advantages to the ESL learners in many ways, as the Mobile technologies are evolving and increasing rapidly. As technology continues to evolve, so do ways

of language learning. The incorporation of such technologies is effective in learning and teaching process. A popular way nowadays is "Mobile Assisted Language Learning" MALL (Miangah & Nezarat, 2012). Thus, MALL is defined as "language learning through the use of mobile technology". MALL is contrasted with traditional classroom learning in which the learner needs to sit in the classroom for learning. This method uses smartphones or other portable devices to learn a second or foreign language. Mobile devices serve as an extension for learning to be informal and autonomous. Hence, MALL has been introduced due to its excellent capability for providing learners with rich and real experiences both inside and outside the classroom. Learner`s autonomy is developed through MALL in ESL and EFL learning contexts. Learner`s autonomy assists learners in self-control and self-assessment. Furthermore, research suggests there are numerous language applications are available on mobile devices which can be used as a model tool for language learning (Botero et al., 2018). A research study indicated that learners applying MALL by using mobile applications, such as Google Translate, Google Meet, YouTube, Zoom and Elsa Speak, help in their learning (Darsih & Asikin, 2020). For successful learning, learners need to be autonomous so that they take control of their own learning (Lyddon, 2016).

Learners' autonomy is very essential for effective teaching and learning process. To shed light on the significance, previous research determined that learners' autonomy serves as a significant motivator for learners. Numerous academic institutions and universities have undertaken a range of surveys and research studies to provide empirical evidence in favour of promoting learner autonomy at various stages of foreign language instruction (Yagcioglu, 2015). The primary objective of learners autonomy is to support and help students to learn independently and to make able students to decide for themselves related to a specific language of choice and method of study (ÇAKICI, 2015). Further, research studies found that the more learners are autonomous in their learning, the more they are motivated to learn. Moreover, according to Ali et al. (2019) Pakistani students show a strong preference toward MALL that it provides freedom and independency to learn according to their own pace and provide ease of communication and interaction. They conducted a close-ended questionnaire study in English language classroom to measure the perception of Pakistan ESL learners in combination with MALL by selecting 60 college students from 6 public sectors intermediate level colleges. After data analysis of the questionnaire, they revealed that the Pakistani learners have demonstrated a positive tendency in relation to MALL and also encourage learners to learn in a shared environment (Ali et al., 2019). As from the above literature study, there is no research study performed by measuring the perception of undergraduate students about MALL in the learner's autonomy. The objective of our research study is to conduct a questionnaire study at the University of Malakand, Pakistan to evaluate undergraduate students' perception about MALL

Therefore, this study aimed to investigate the perceptions of undergraduate students regarding the impact of MALL on learners' autonomy in ESL classroom. Furthermore, the study aimed to analyse that what strategies can be productive and useful for promoting learners' autonomy in ESL classrooms while using mobile phones. The study is focused on the undergraduate students at University of Malakand, Khyber Pakhtunkhwa.

Problem Statement

Mobile-Assisted Language Learning (MALL) is a modern and innovative technological approach for acquiring language skills. It leverages the capabilities of mobile devices to serve as

essential tools in facilitating language learning processes. In other countries, many studies have been conducted on the usage of MALL. However, as far as language learning through MALL in Pakistan is concerned, limited studies have been conducted. The role of mobile technology is inadequate in the educational system of Pakistan. There is limited use of modern technological tools, such as mobile devices, in Pakistani classrooms. Learners are confined only to classroom learning. Therefore, the current study focuses on the investigation of the learner`s perception about MALL and what role MALL plays in the learners` autonomy in learning English as a second language in the University of Malakand, Pakistan.

Research Objectives

1. To investigate the perceptions of undergraduate students about the impact of Mobile assisted language learning (MALL) on learner`s autonomy.

2. To investigate undergraduate students` perceptions about strategies for independent learning while applying MALL to the ESL learning classroom.

Research Questions

1. What are the perceptions of undergraduate students about the impact of MALL on learners` autonomy?

2. How MALL helps in independent learning of English language of the undergraduate students at the University of Malakand?

Significance of the Study

MALL is an advanced phenomenon in the educational settings of Pakistan. This study possesses considerable significance for both learners and educational institutions. The objective of this study is to enhance learners' understanding of the application of MALL and its significance in facilitating the learning of English as a second language. Besides, it examines the potential influence of MALL on the improvement of vocabulary, language proficiency, pronunciation, and grammatical competence. Moreover, to investigate the perceptions of learners about the potential impact of MALL on learners' motivation and the promotion of autonomous learning is very important for modern day education. The institutions will adopt those technological strategies that will facilitate language learning. This study will be supportive in finding out that if MALL is acceptable or not among the undergraduate learners.

LITERATURE REVIEW

Currently, mobile devices are emerging rapidly due to high-level use for carrying communication among humans. Due to the intense use of mobile and tablet devices, Mobile-assisted language learning (MALL) has achieved significant interest in the current era. Mobile Assisted Language Learning (MALL) is language learning that is aided or enhanced through the use of a portable mobile device. Mobile assisted language learning (MALL) is derived from Computer assisted Language learning (CALL). MALL is used by the learners for language autonomy and training language skills (Viberg & Grönlund, 2012). Researchers described MALL as convenient and functional tool in education, specifically in the context of English as a foriegn language (EFL) and English as a second language (ESL) learning due to its remarkable impacts on language learning (Al-Shehab, 2020). Mobile assisted language learning (MALL) has

effective role and efficient for the upgrading of language skills, vocabulary, pronunciation, and grammar (M. M. Ali et al., 2019). MALL provides ESL learners new learning modes such as language content choices and learning space outside the classroom context and thus enhancing learner`s autonomy which refers to the ability of learners to learn independently (Nasr & Abbas, 2018). A researcher conducted an experiment in 2013 in which he found that mobile use enhanced learner`s motivation for language learning and also increase their vocabulary (Fageeh, 2013). It has been seen in the light of Technology Acceptance Model (TAM) that majority of EFL learners supported and have positive attitude towards the ease of use of Mobile assisted language learning (Van Loc et al., 2021). The utilisation of MALL (Mobile-Assisted Language Learning) facilitates increased learner engagement in the writing process, resulting in improved task management efficiency and the development of learner autonomy (Al-Shehab, 2020). Researchers stated that the implementation of technology over traditional approaches can have several long-term positive outcomes and the English language is utilised as a favourite and majorly employed in the mobile applications related to English learning (M. S. M. Ali et al., 2022; Kamilah, 2017). Numerous academic institutions and universities have undertaken a range of surveys and research studies to provide empirical evidence in favour of promoting learner autonomy at various stages of foreign language instruction (Yagcioglu, 2015).

According to a study conducted by Yildirim and Simsek (2013), undergraduate students perceive MALL as a useful and effective tool for language learning. The study found that students who used MALL reported higher levels of motivation and engagement in their language learning activities. They also reported increased self-confidence and a sense of accomplishment in their language skills. In addition, the study found that students who used MALL had a more positive perception of their language learning progress and experienced a higher level of learner autonomy compared to those who did not use MALL. Another study conducted by Wang and Huang (2016) found similar results in regard to the positive perception of MALL among undergraduate students. The study found that students who used MALL reported higher levels of satisfaction with their language learning experiences and felt more confident in their language skills. They also reported that MALL helped them to become more independent learners and to take greater control of their own learning process. However, not all studies have found a positive relationship between MALL and learner autonomy. A study by Gao and Peng (2017) found that while MALL can enhance learner autonomy, it can also have a negative impact if not used appropriately. The study found that students who used MALL excessively reported lower levels of learner autonomy, as they became reliant on mobile devices and lost the ability to self-regulate their learning process.

A study by Chen and Hsu (2019) examined the perceptions of undergraduate students towards MALL in the context of learner autonomy in a Taiwanese university. The study found that the students perceived MALL as a useful tool for language learning, as it allowed them to access learning materials and activities anytime and anywhere. The students also reported that MALL helped them to become more self-directed and motivated in their learning. However, the study also found that some students faced challenges in using MALL, such as the limited availability of appropriate learning materials and the lack of technical support. Similarly, Al-Sabbagh (2020), the perceptions of undergraduate students towards MALL in the context of learners' autonomy was investigated in a Palestinian university. The study found that the majority of the students perceived MALL as an effective tool for language learning, as it provided them with the flexibility and convenience to access learning materials and activities anytime and anywhere.

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The primary objective of learners autonomy is to support and help students to learn independently and to make able students to decide for themselves related to a specific language of choice and method of study (ÇAKICI, 2015). The research work of (Jaelani & Adung, 2022) is to evaluate the usefulness of MALL in promoting learner autonomy and showed that in what manner the EFL students experienced about its usage in speaking situations. A case study was undertaken, in which a sample of 15 students from the English department was chosen to participate. The participants underwent interviews in which open-ended questions were utilised to collect pertinent data. The outcomes of the case study encouraged MALL for independent learners and their improvement to speak English. Similarly, a comprehensive questionnaire study was conducted at the University of Tabuk, Saudi Arabia by choosing 60 students for exploring the effects of MALL on learners' autonomy. The selected students performed in Oxford Test of English (OTE) to make sure that all learners were equal. The Rosetta Stone software were used on iPhone devices for measuring learners' ability towards MALL. The outcomes of the proposed research determined that the application of MALL had a significant effect on the improvement of learners' autonomy (M. S. M. Ali et al., 2022). Pakistani students show a strong preference toward MALL that it provides freedom and independency to learn according to their own pace and provide ease of communication and interaction. They conducted a close-ended questionnaire study in English language classroom to measure the perception of Pakistan ESL learners in combination with MALL by selecting 60 college students from 6 public sectors intermediate level colleges. After data analysis of the questionnaire, they revealed that the Pakistani learners have demonstrated a positive tendency in relation to MALL and also encourage learners to learn in a shared environment (M. M. Ali et al., 2019).

RESEARCH METHODOLOGY

Based on the principles of Connectivism, a comprehensive methodology for conducting research and questionnaire survey on the perceptions of undergraduate students about MALL in relation to learner autonomy can be outlined as follows: The primary research method of data collection that we have chosen for is a questionnaire survey. The utilisation of a questionnaire survey enables the collection of both qualitative and quantitative data relating to the perceptions, approaches, and usage patterns of undergraduate students in relation to MALL. An online JISC tool was employed to create a questionnaire survey that involves the relevant aspects of MALL and aligns it with our proposed research objectives and research questions. The questionnaire survey was disseminated through electronic means, specifically email and WhatsApp, in order to maximise its distribution and enhance the probability of active participation from a larger pool of respondents.

Population: The target population for our managed questionnaire survey includes undergraduate students from various departments at the University of Malakand.

Sampling Technique: Random sampling is a research method utilized to choose a subset of individuals from a larger population in a manner that ensures an equal probability for every

member of the population to be included in the sample (Bell, 2011). This approach makes sure that the selected sample accurately reflects the characteristics of the entire population, thereby facilitating the generalization of the findings to the broader group.

RESULTS

Question 5 of the survey inquired about the frequency of mobile app or tool usage for language acquisition. The responses gathered were largely positive and provided a promising outlook.
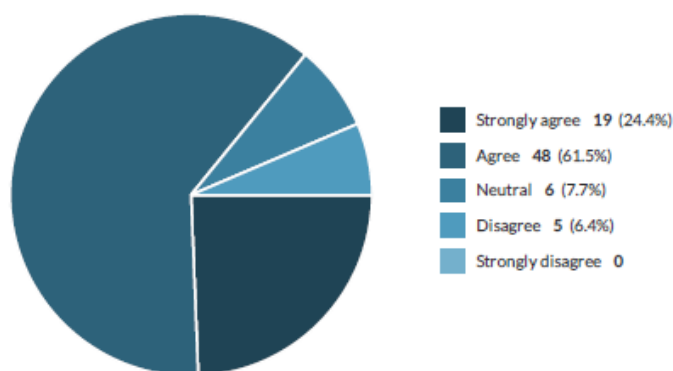

Figure 1: In the conducted survey responses received to Q5 "I often use mobile apps or tools for language learning."

The data presented in Figure 4 indicates that a significant proportion of the participants exhibited a favorable inclination towards utilizing mobile applications as a tool for acquiring language skills. The option "Agree" was chosen by most respondents, with 61.5% indicating frequent utilization of mobile apps or tools for language learning purposes. Moreover, a considerable proportion of the respondents (24.4%) expressed a high level of concurrence with the assertion, thereby underscoring their proactive involvement in the acquisition of language skills via mobile devices. 7.7% participants chose "Neutral" to indicate they neither strongly agreed nor disagreed with the statement. This suggests that this group uses mobile applications or tools for language learning somewhat or rarely. Only 6.4% of respondents picked the "Disagree" option, indicating that they seldom utilize mobile apps or tools for language learning. No participants picked the "Strongly Disagree" option, suggesting that the questioned group did not strongly oppose mobile applications or tools for language learning. Q5 shows a promising trend, with many participants using mobile applications or tools for language learning. These findings show that mobile technologies may help and improve language learning. Figure 5 shows the responses of Q6 of the survey. We can observe that most participants agreed or strongly agreed that using mobile apps or tools allows them to learn at their own pace with 38.5% strongly agreeing and 39.7% agreeing. A smaller proportion of participants expressed a neutral stance (14.1%), while a relatively small percentage disagreed (6.4%) or strongly disagreed (1.3%) with the statement.
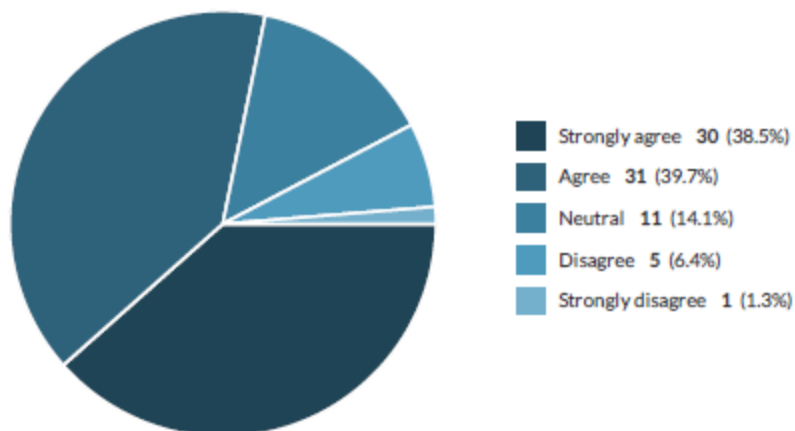
Figure 2: In the conducted survey, the figure shows the outcomes of Q6 "Using mobile apps or tools allows me to learn at my own pace."

Likewise, Q7 was about the potential efficacy of mobile applications or tools in enhancing one's linguistic abilities, with the responses gathered being affirmative. The distribution of participant responses is visually depicted in Figure 6. According to Figure 6, the percentage of respondents who strongly agreed was 33.3%, while the percentage of respondents who agreed was 48.7%.
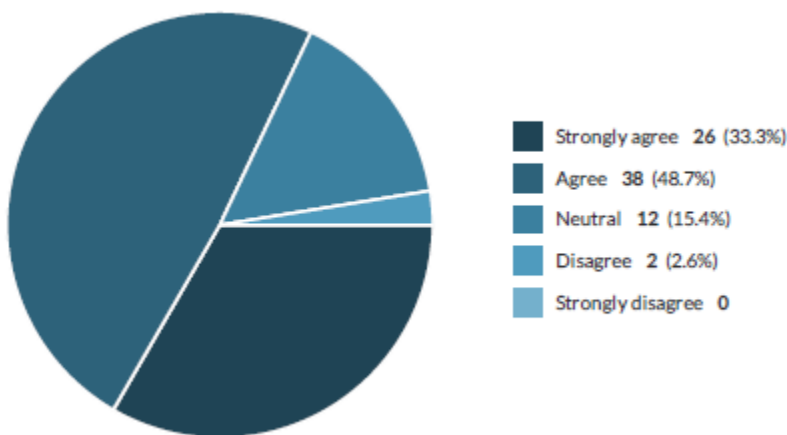
Figure 3: Q7 asked "Mobile apps or tools are helpful in improving my language skills" and the received responses are shown.

The percentage of respondents who selected the "Neutral" option is 15.4%, while those who chose "Disagree" and "Strongly Disagree" are 2.6% and 0%, respectively. The present study examines the distribution of responses provided by participants in relation to their perceptions of the efficacy of mobile applications or tools in enhancing language proficiency. The data can indicate that a significant proportion of the respondents agreed or strongly agreed with the statement, whereas a smaller fraction expressed a neutral or opposing viewpoint. The lack of feedback in the "Strongly Disagree" category suggests a robust affirmative general perception of the efficacy of mobile applications or tools in enhancing language proficiency among the respondents who were surveyed. Question 8 of the survey was to inquire about the degree of

autonomy experienced by individuals when utilizing mobile applications or devices for language acquisition. The responses garnered were notably favorable. As per the data presented in Figure 7, a substantial percentage of participants (36.4%) chosen for the response "Strongly Agree," which implies a noteworthy number of respondents who possess a strong opinion in their autonomy and self-reliance while utilizing mobile applications or tools for language acquisition. This high percentage suggests that a considerable portion of the participants feel confident and self-reliant in utilizing these technological tools for language learning purposes.
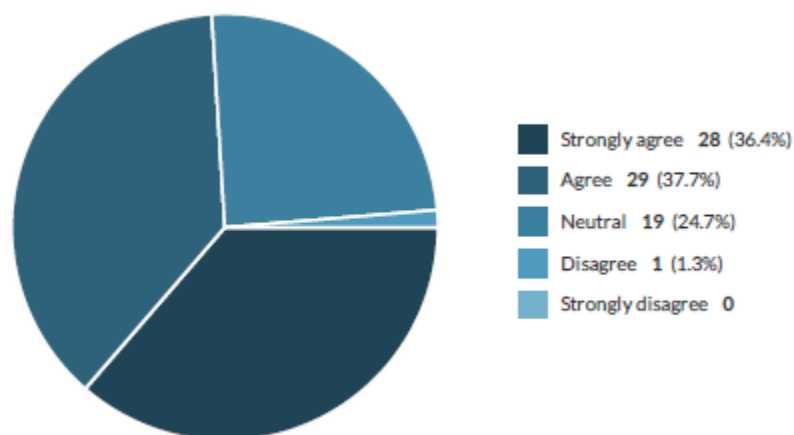

Figure 4: In Q8 asked, "I feel autonomous (independent) in using mobile apps or devices for language learning" and the received responses are illustrated.

Furthermore, it is noteworthy that the response classification denoted as "Agree" gathered a significant proportion of 37.7%. The findings indicate that a considerable proportion of respondents acknowledge and perceive their self-governance and self-reliance in utilizing mobile applications or devices for language acquisition, although not exhibiting the same degree of opinion as individuals who chose for the response option "Strongly Agree."

A smaller portion of participants (24.7%) selected the response category "Neutral," indicating a sense of uncertainty regarding their autonomy and independence in using mobile apps or tools for language learning. The individuals surveyed may possess a well-rounded viewpoint or necessitate additional interpretation regarding the notion of autonomy within the realm of mobile-assisted language learning. The data reveals that a small fraction of respondents (1.3%) selected for the "Disagree" option, indicating that most individuals exhibited autonomy and independence in utilizing mobile applications or devices for language learning. This observation is of significance. Furthermore, no participants selected the response category "Strongly Disagree," indicating unanimous agreement or absence of disagreement with the statement. In general, the data indicates a favorable tendency, as most respondents exhibited agreement or strong agreement concerning their autonomy and self-sufficiency in utilizing mobile applications or devices for language acquisition. This finding highlights the perceived value of mobile-assisted language learning as a tool that empowers students to perceive charge of their language-learning process and supports their sense of autonomy and independence. Similarly, the 9th question inquired, "To what extent do you feel assured in your aptitude to acquire a new language through mobile applications?" The answers obtained were interesting. As per the data presented in Figure 8, a significant proportion of the participants, precisely 30.3%, exhibited

strong agreement with the statement, thereby signifying a considerable degree of assurance in their aptitude to acquire a new language via mobile applications. The results of the study indicate that a significant proportion of the respondents, specifically 51.3%, demonstrated a positive attitude towards the use of mobile applications as a tool for language acquisition, thereby underscoring their level of trust in this technology.
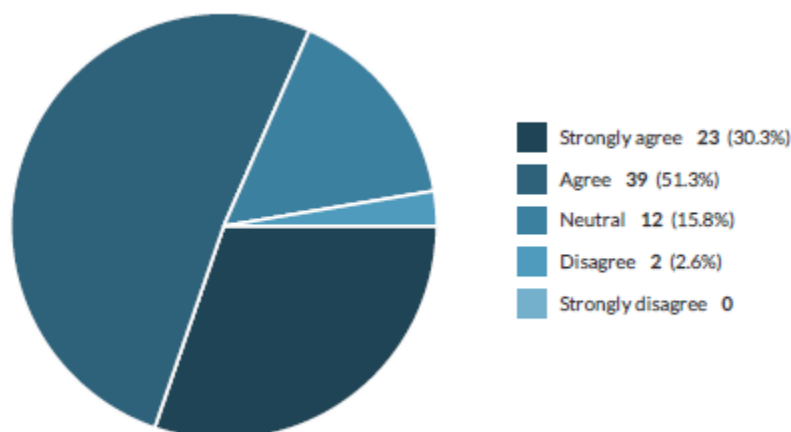

Figure 5: Q9in the survey asked, "I feel confident in my ability to learn a new language using mobile apps" and responses are shown.

A minority of respondents, comprising 15.8% of the sample, expressed a neutral position, signifying their lack of agreement or disagreement with the given statement. This implies that the individuals might exhibit differential degrees of self-assurance or may necessitate additional data or practice to develop a firm viewpoint. Likewise, a minute proportion of the participants, amounting to 2.6%, expressed dissent towards the statement, thereby implying a deficiency in their self-assurance to acquire a new language via mobile applications. It is imperative to examine the underlying rationales for their discordance, which may encompass individual preferences, prior encounters, or perceived constraints of mobile applications for language learning. Moreover, it is noteworthy that none of the participants selected for the "Strongly Disagree" alternative, indicating a lack of strong disagreement among the respondents towards the statement. In general, the data suggests a favorable pattern, as a substantial proportion of respondents' demonstrated assurance in their capacity to acquire a new language through mobile applications. The observation implies that a significant proportion of the respondents acknowledge the possibility of mobile applications as effective tools for acquiring language skills and exhibit a favorable disposition towards their own language acquisition aptitude. The discovery serves to strengthen the significance and possibility of incorporating mobile-assisted language learning within academic settings.

Question 10 of the given survey inquired about the perceived usefulness of mobile language learning resources such as dictionaries and pronunciation assists. The responses collected were highly advantageous. The graphical representation depicted in Figure 9 illustrates the dispersion of responses and offers valuable insights into the perceptions of the participants with regards to the efficacy of mobile language learning resources. Most respondents, as indicated by the combination of the "Strongly agree" and "Agree" categories, conveyed a favorable viewpoint

regarding mobile language learning resources. The results of the study indicate a significant proportion of participants, specifically 39% and 48%, expressed strong agreement and agreement, respectively, with the proposition that mobile resources, such as dictionaries and pronunciation aids are advantageous for language learning. In contrast, a smaller proportion of participants expressed a more neutral or negative opinion. The category labeled as "Neutral" denotes a proportion of 9.1% of the participants, signifying an absence of a firm stance either in favor or against the subject matter. The categories of "Disagree" and "Strongly disagree" were observed among 2.6% and 1.3% of the participants, respectively. These categories represent a minority of the participants who hold the view that mobile language learning resources are not useful.
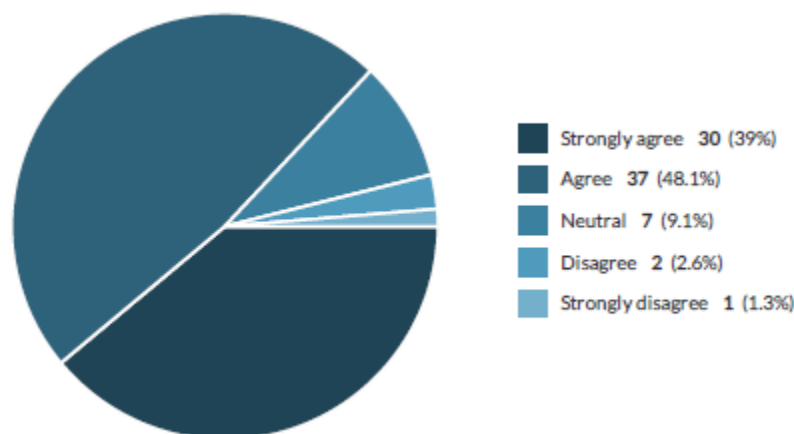
Figure 6: Q10 of the conducted survey asked, "I find mobile language learning resources (e.g., dictionaries, pronunciation, etc.) to be useful." with received responses shown.

In general, Figure 9 illustrates a favorable perception of mobile language learning resources among a significant proportion of the respondents. The substantial proportion of respondents who expressed a strong level of agreement with the given statement implies a common response of the significance and effectiveness of stated resources in facilitating language acquisition activities. The results highlight the capacity of mobile technologies to augment language acquisition encounters and furnish learners with advantageous tools to improve their linguistic expertise.

Question 11 inquired about the comfort level of utilizing mobile-assisted language learning resources for language skill practice, and the feedback received indicated a positive response. The distribution of responses among the participants is depicted in Figure 10. The percentage values attributed to each response option offer insight into the general opinions of the participants towards utilizing mobile-assisted language learning resources for the purpose of improving language proficiency. The findings of this study reveal that a considerable proportion of the respondents showed favorable viewpoints towards utilizing mobile-assisted language learning materials for improving their language expertise, as represented in Figure 10. Most participants, comprising 57.1%, belong to the "Agree" category, which suggests that utilizing mobile resources for language practice is a comfortable option for most individuals. Moreover, a significant proportion of the respondents (26%) expressed a strong agreement with the notion

that mobile-assisted language learning resources are conducive to comfortable language skill practice.

DISCUSSION

The participants emphasized the importance of personalized learning, adaptive learning technologies, and feedback mechanisms for learners, daily vocabulary notifications, and pronunciation learning tools as key features or types of MALL resources. The resources were deemed to be especially beneficial in promoting self-directed learning and fostering linguistic advancement. The findings of the survey were reinforced by the thematic analysis of the open-ended responses. The word cloud that was produced from the analysis highlighted the significance of personalized learning, adaptive learning, feedback, and pronunciation enhancement. The themes are in accordance with the viewpoints of the participants regarding the MALL resources that facilitate the development of learner autonomy. The results are in line with study conducted by Nasar and Abbas (2018) that MALL facilitates the learners in teaching and learning process. The discussion of the survey results explores the implications of these findings for language learning pedagogy and the integration of MALL in educational settings. It investigates the ways in which MALL can be effectively utilized to foster learner autonomy, enhance motivation, and provide learners with opportunities for independent practice and exploration. The discussion also addresses potential challenges and considerations that need to be considered when implementing MALL initiatives, such as ensuring equitable access to technology and providing appropriate guidance and support to students.

Furthermore, the survey responses indicate that the participants perceive MALL as a valuable tool for independent learning. They highlighted the convenience and flexibility of using mobile devices to access language learning resources anytime and anywhere, enabling them to take charge of their learning process. The participants also expressed a high level of satisfaction with the effectiveness of MALL in improving their language skills and promoting self-directed learning. The survey also shed light on the strategies employed by participants for independent learning. Most of the respondents reported engaging in activities such as using language learning apps, watching educational videos, and participating in online language communities. These strategies demonstrate the proactive efforts made by students to extend their language learning beyond the confines of the traditional classroom setting, showcasing their motivation and commitment towards developing learner autonomy. Moreover, the responses are similar to the study of Wang and Yang (2016) which highlighted the strong relationship between the participants' perception of MALL and their overall language learning experience. Participants who held a positive perception of MALL reported a higher level of motivation, engagement, and enjoyment in their language learning endeavors. This emphasizes the significant role of students' attitudes and beliefs towards technology in influencing their language learning outcomes and overall learner autonomy.

CONCLUSION AND RECOMMENDATION

The primary objective of the research study was to examine the influence of Mobile-Assisted Language Learning (MALL) on learner autonomy, investigate approaches to self-directed learning, and comprehend learners' attitudes towards MALL. The research has generated significant findings and made notable contributions to the domain of language education. In conclusion, the current research study has effectively accomplished its aims by examining the

influence of MALL on learner autonomy, investigating approaches for self-directed learning, and revealing learners' attitudes towards MALL. The ascertained favorable effects and acquired knowledge underscore the importance of MALL in language instruction and underscore the value of this study in contributing to the discipline. The results of the study can be utilized as a basis for further research initiatives and offer pragmatic suggestions for improving language acquisition techniques by proficiently incorporating mobile-assisted language learning methodologies.

It is recommended that future research endeavors undertake longitudinal investigations to examine the continuing impacts of Mobile-Assisted Language Learning (MALL) on the self-directedness of learners. Comparative analyses can be performed to assess the efficacy of various Mobile-Assisted Language Learning (MALL) resources and methodologies. Furthermore, it is suggested to conduct an analysis into pedagogical approaches as well, furnish learners with appropriate training and assistance, examine cultural and contextual elements, and analyze the significance of teachers' Pedagogical Content Knowledge (PCK) (Chan & Hume, 2019). The utilization of mixed-methods methodologies would offer a comprehensive comprehension of the influence of Mobile-Assisted Language Learning (MALL) on learner autonomy. The exploration of these research domains would serve to augment the effectiveness of Mobile-Assisted Language Learning (MALL) in encouraging learner autonomy within the context of language learning.

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