THE IMPACT OF MOBILE-ASSISTED VOCABULARY INPUT ON L2 STUDENTS' VOCABULARY KNOWLEDGE AT A TERTIARY INSTITUTION IN PAKISTAN

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ABSTRACT

This study aimed to show how mobile phones, especially smartphones, can be used to help second-language learners improve their vocabulary for academic purposes at the tertiary level. In the development of Mobile Assisted Language Learning (MALL), it is often said that language-related technology is developing and will help students improve their future learning. These common tools (mobile phones, smartphones, mobile applications), which are widely used, could help teachers and students learn new words. However, these tools have not been properly integrated into the curricula of schools and other higher education institutions. Moreover, there is a dearth of research on how smartphones could be utilised for teaching and learning L2 vocabulary from word lists. This study, therefore, investigated the impact of mobile-assisted word lists input on L2 students' test performance and perceptions in a Quasi-experimental study. Seventy undergraduate students from the Bahauddin Zakariya University (BZU), Pakistan, participated in the study; 35 students were part of the control group, and the other 35 were part of the experimental group. The data collection instruments were Nation andBeglar's (2007) Vocabulary Size Test (VST), survey, and interviews. VST aimed to measure the impact of the mobile-assisted vocabulary word lists input on the students' vocabulary test performance, while the survey and interviews were utilised to investigate the perceptions of the students from the experimental group regarding their experience of using the mobile-assisted vocabulary input. Interventions were only given to the students of the experimental group, while students in the control group continued their learning from the textbooks that were based on conventional methods. The interventions were in the form of vocabulary items chosen from Coxhead's (2000) Academic Wordlist (AWL) and Nation andBeglar's (2007) Vocabulary Size Test (VST). Intentional learning approach embedded in Behaviourism was used to send the interventions. The interventions were given through WhatsApp text messages. A total number of 500 vocabulary items were sent to the students during 10 weeks period of intervention, while 10 items per day during the 5 working days (10 x 5 = 50) of the week were sent to the students of the

experimental group. The results were triangulated based on the instruments. The research procedure was composed over a semester. Independent and paired sample t-tests were run on the vocabulary test scoresto assess if there were significant results due to the interventions. The survey was analysed using descriptive analysis, and content analysis helped identify emerging themes in the qualitative data. The findings from the independent t-test showed that there was a significant impact of the intervention on the experimental group, and the post-test results of both groups showed a significant difference in the mean scores (control group, M= 72.14 (SD = 10.47); experimental group, M = 82.37 (SD = 17.14). A significant improvement of M = 10.23 scores, $p < .05$ was observed in the mean scores, while paired sample t-test results of the experimental group showed pre-test M = 68.94 (SD = 10.86) and post-test M = 82.37 (SD = 17.14), *p-value* = 0.00 with a differential increase of 13.43 mean scores. In addition, the survey results indicated thatthe students perceived mobile-assisted vocabulary learning to positively affect their vocabulary achievement, while the emerging themes from qualitative data corroborated the survey findings. The research found that mobile-assisted vocabulary input improved students' vocabulary acquisition, with the experimental group outperforming the control group. The outcomes of this research may have pedagogical implications for language teachers, curriculum developers, and policymakers. The study suggests using mobile-assisted vocabulary input to help L2students improve their language proficiency. This strategy may also encourage self-study and overcome time restrictions for vocabulary development in L2 classrooms.

Keywords: mobile-assisted, WhatsApp, vocabulary, word lists, vocabulary measurement, vocabulary size, perceptions.

ABSTRAK

Kajian ini bertujuan untuk menunjukkan bagaimana telefon bimbit, terutamanya telefon pintar, boleh digunakan untuk membantu pelajar bahasa kedua meningkatkan perbendaharaan kata mereka untuk tujuan akademik di peringkat pengajian tinggi. Dalam pembangunan Mobile Assisted Language Learning (MALL), sering dikatakan bahawa teknologi berkaitan bahasa semakin berkembang dan akan membantu pelajar meningkatkan pembelajaran masa depan mereka. Alat biasa ini (telefon mudah alih, telefon pintar, aplikasi mudah alih), yang digunakan secara meluas, boleh membantu guru dan pelajar mempelajari perkataan baharu. Walau bagaimanapun, alat ini belum disepadukan dengan betul ke dalam kurikulum sekolah dan institusi pengajian tinggi lain. Selain itu, terdapat kekurangan penyelidikan tentang bagaimana telefon pintar boleh digunakan untuk pengajaran dan pembelajaran kosa kata L2 daripada senarai perkataan. Oleh itu, kajian ini menyiasat kesan input senarai perkataan berbantukan mudah alih terhadap prestasi ujian dan persepsi pelajar L2 dalam kajian Kuasi-eksperimen. Tujuh puluh pelajar sarjana muda dari Universiti Bahauddin Zakariya (BZU), Pakistan, mengambil bahagian dalam kajian itu; 35 pelajar adalah sebahagian daripada kumpulan kawalan, dan 35 yang lain adalah sebahagian daripada kumpulan eksperimen. Instrumen pengumpulan data ialah Ujian Saiz Perbendaharaan Kata (VST) Nation and Beglar (2007), tinjauan, dan temu bual. VST bertujuan untuk mengukur kesan input senarai perkataan perbendaharaan kata berbantukan mudah alih terhadap prestasi ujian kosa kata pelajar, manakala tinjauan dan temu bual digunakan untuk menyiasat persepsi pelajar daripada kumpulan eksperimen berkenaan pengalaman mereka menggunakan bantuan mudah alih. input kosa kata. Intervensi hanya diberikan kepada pelajar kumpulan eksperimen, manakala pelajar kumpulan kawalan meneruskan pembelajaran mereka daripada buku teks yang berasaskan kaedah konvensional. Intervensi adalah dalam bentuk item kosa kata yang dipilih daripada Coxhead (2000) Academic Wordlist (AWL) dan Nation and Beglar (2007) Vocabulary Size Test (VST). Pendekatan pembelajaran sengaja yang terkandung dalam Behaviourisme digunakan untuk menghantar intervensi. Intervensi diberikan

melalui mesej teks WhatsApp. Sejumlah 500 item perbendaharaan kata telah dihantar kepada pelajar dalam tempoh 10 minggu intervensi, manakala 10 item sehari selama 5 hari bekerja (10 x 5 = 50) minggu dihantar kepada pelajar kumpulan eksperimen. Keputusan telah ditriangulasi berdasarkan instrumen. Prosedur penyelidikan telah disusun selama satu semester. Ujian-t sampel bebas dan berpasangan dijalankan pada skor ujian perbendaharaan kata untuk menilai sama ada terdapat keputusan yang signifikan disebabkan oleh intervensi. Tinjauan telah dianalisis menggunakan analisis deskriptif, dan analisis kandungan membantu mengenal pasti tema yang muncul dalam data kualitatif. Dapatan daripada ujian-t bebas menunjukkan bahawa terdapat kesan signifikan intervensi terhadap kumpulan eksperimen, dan keputusan ujian pasca kedua-dua kumpulan menunjukkan perbezaan yang signifikan dalam skor min (kumpulan kawalan, M= 72.14 (SD = 10.47);kumpulan eksperimen, M = 82.37 (SD = 17.14).Peningkatan ketara M = 10.23 markah, p <.05 diperhatikan dalam skor min, manakala keputusan ujian-t sampel berpasangan bagi kumpulan eksperimen menunjukkan ujian pra. M = 68.94 (SD = 10.86) dan ujian pasca M = 82.37 (SD = 17.14), nilai p = 0.00 dengan peningkatan perbezaan 13.43 skor min. Di samping itu, hasil tinjauan menunjukkan bahawa pelajar menganggap perbendaharaan kata berbantukan mudah alih. belajar untuk memberi kesan positif terhadap pencapaian perbendaharaan kata mereka, manakala tema yang muncul daripada data kualitatif menyokong penemuan tinjauan. Penyelidikan mendapati bahawa input perbendaharaan kata berbantukan mudah alih meningkatkan pemerolehan perbendaharaan kata pelajar, dengan kumpulan eksperimen mengatasi kumpulan kawalan. T hasil penyelidikan ini mungkin mempunyai implikasi pedagogi kepada guru bahasa, pembangun kurikulum dan penggubal dasar. Kajian mencadangkan menggunakan input perbendaharaan kata berbantukan mudah alih untuk membantu pelajar L2 meningkatkan penguasaan bahasa mereka. Strategi ini juga boleh menggalakkan pembelajaran kendiri dan mengatasi sekatan masa untuk pembangunan perbendaharaan kata dalam bilik darjah L2.

Kata kunci: bantuan mudah alih, WhatsApp, perbendaharaan kata, senarai perkataan, ukuran kosa kata, saiz perbendaharaan kata, persepsi.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

In learning a second language, the significant importance of vocabulary is well-known and well-documented (Ardasheva et al., 2019). Mastering a second language (L2) requires learning vocabulary, which improves L2 speaking, listening, reading, and writing skills (Gorjian et al., 2011). High-quality word knowledge, which includes knowledge of forms (pronunciation, spelling, morphological and grammatical word properties), as well as the knowledge of multiple word meanings across different contexts, is linked to an understanding of the rich and interconnected information that is communicated by that word and is crucial to learning new vocabulary. Learning vocabulary is one of the biggest challenges that students face in their language studies because of the complexity of words (Schmitt, 2014). This is particularly true considering the short amount of classroom time allocated to L2 learning and the limited outside-classroom exposure to the second language. It should not be surprising, therefore, if students learning English as a second or foreign language sometimes fail to meet the goals established for their vocabulary growth (Gibson, 2016). Furthermore, having a limited vocabulary affects other language skills and academic performance.

The development of new technology has profoundly influenced learning vocabulary as an important component of L2 acquisition. Technological activities may stimulate the attention of L2 learners by providing them with more verbal and multimedia exposure to the target language, as well as additional opportunities to engage with the target language through different technological devices. The use of computers and mobile phones to expand learning opportunities outside the classroom are only two examples of how technology may affect how learners access and absorb

L2 vocabulary (Li et al., 2017).

In the education sector, technology has profoundly affected the learning and teachingprocesses (Raja & Nagasubramani, 2018). Adopting appropriate technology allows learning to be customised according to students' lifestyles and requirements (Win et al., 2019). Nowadays, teachers can be seen using various internet-supported devices in the classroom to help students learn in a diverse and flexible environment (Abdel-Basset et al., 2019). Technology has also facilitated language learning by having lessons either in or outside the classroom. Students can learn through online tools with the support of mobile devices such as smartphones, which students commonly possess (Suk, 2017). It has also been observed that by utilising certain technologies, students may get online learning assistance fromtheir teachers outside the classroom, perhaps through online coaching and self-learning (Fauzi & Khusuma, 2020; Anshari et al., 2017). For instance, increased technology use and the widespread use of mobile devices such as smartphones have given rise to a new language-learning technique known as Mobile-assisted Language Learning (MALL) (Chen et al., 2020). MALL is a learning method that promotes mobile devices and incorporates mobile learning in the language classroom (Hoi, 2020). This approach to language learning has the potential to make learning and teaching more widespread. It focuses on the mobility of the learning practice by emphasizing the interaction between the learners and teachers to enhance learningeffectiveness, flexibility, and convenience (Gonulal, 2019).

Consequently, MALL can expand possibilities for learning a language outside the traditional classroom. Thornton and Houser (2005) suggested that mobile phones can expand opportunities for meaningful learning and aid in transferring knowledge and material in a learner-centered environment (Nedungadi & Raman, 2012). MALL is more explorative in terms of technology when this also informs that mobile assistance focuses on the written and spoken/pronounced word lists. Many studies have proved that technology, especially mobile phones help students learn vocabulary (Alemi et al., 2012; Basal et al., 2016; Khabsarian-Dehkordi & Ameri- Golestan, 2016; Mahdi, 2018), and as the focus of this study is on mobile-assisted vocabulary word list learning, and the findings will contribute further to the area of research.

1.2 Background of the study

Urdu and English are the official languages of Pakistan, and Urdu serves as the national language, while English is the official language for the court and military. English is alsoregarded as the key to success and a symbol of social status (Rashid, 2018). Rashid (2018) further stated that accordingto the language policy of the country (National Education Policy) launched in 2009, teaching Urdu, English, and one regional language in primary education is compulsory, while mathematics and sciences can be taught either in English or in Urdu. In addition, the policy states that English is the medium of instruction after primary school. However, the policy may not be fully implemented in rural and urbanschools. As a result, teachers and students continue utilising Urdu in English languageclasses (Asif et al., 2018; Manan et al., 2017).

Ammar et al. (2015) claimed that students in Pakistan have inadequate English language proficiency because of a lack of planning to establish a comprehensive language policy in Pakistan. Researchers claimed that English language teachingin Pakistan lacks creativity and competence, negatively impacting the performance of students (Abbas & Asif, 2012; Rashid, 2018). Abbas and Asif (2012) observed that obsolete teaching methods, an emphasis on rote learning, packed classrooms, poor planning when establishing a syllabus, and a lack of motivation among teachers and students were the most critical factors causing poor student performance (Rashid, 2018). Perhaps, more effective teaching approaches may solve the problem of poor student performance. A current and rewarding teaching approach for the language classroom is the adoption of technology. Studies have shown that modern technologies are more relevant and authentic to language learning, even more than what the classrooms can offer (Hwang & Fu, 2019; Kacetl & Klímová, 2019). Hence, available technologies such as mobile devices, specifically mobile phones and smartphones, should be explored to benefit both students and teachers.

Mobile devices are valuable learning tools for learners to acquire information and interact efficiently and immediately with their teachers and classmates (Farley et al., 2015). They are also cost-effective, flexible, and convenient (Sadiq et al., 2021; Alshehri & Cumming, 2020). In Pakistan, mobile devices are widespread, and mobile users have increased in recent years (Pakistan Telecommunication Authority, 2018a).

However, Abbas and Asif (2012) highlighted that while mobile technology is being widely used, it has been relatively underused in the educational settings of Pakistan. Pakistani teachers are falling behind in adopting technology in the classroom and continue to use traditional language teaching approaches, citing several reasons, such as concentration on exams, lack of funding, computer skills, and institutional support for technology adoption. Technology adoption should be encouraged to update the country's education landscape and simultaneously effectively offer an alternative to teaching approaches.

Regarding the significance of vocabulary acquisition in language learning, a body of significant empirical data and theoretical understanding have confirmed that lexis and vocabulary play a significant role in a language, and scholars have long recognised this (Nation, 1990, 2013, 2022; Laufer, 2005; N.Schmitt & D. Schmitt, 2020). The vocabulary, rather than the syntax, is one of the most difficult aspects of learning and developing a language, regardless of whether it is the learner's first or second language (Choo et al., 2012). Additionally, vocabulary knowledge has been cited as being of utmost significance by language learners, and issues with both receptive and productive language usage have been associated with inadequate or insufficient vocabulary knowledge (Nation, 1990). Laufer (2014) and Lewis et al. (1997) confirmed that there is a clear difference in the amount of vocabulary and size between both native and non-native English speakers.

As a part of the ongoing process of language acquisition that happens throughout a person's lifetime, language learning takes place outside of the classroom (Derakhshan & Karimi, 2015). The process of learning a new language extends beyond formal classroom experiences. Furthermore, experiences outside the classroom have a crucial role in second-language learners' language acquisition (Resnik & Schallmoser, 2019). The use of technology has changed the process of language learning, which highlights the necessity to comprehend language-learning experiences with technology. This strategy is one of the main ones that support language acquisition outside the classroom in contemporary learning and teaching. The current study focuses on vocabulary development outside the classroom, which is a crucial component of total language acquisition (Lavasani & Faryadres, 2011). Modern technology is used to execute this (smartphone applications).

The current study, which takes this into account, focuses on the usefulness of smartphone applications in improving Pakistani L2 students' vocabulary knowledge.

1.3 Statement of problem

Pakistan has two official languages: Urdu and English. Urdu is the national and contact language, and English is the official language. The ability to speak and write in English is often seen as essential to professional and social success. This issue of deciding which language to use and giving it precedence turned into a political conflict between competing political parties (Rashid, 2018). Few political parties supported Urdu, while others supported English. This led to different language policies over time. This circumstance also resulted in the establishment of three distinct types of schools: English medium schools, in which English served as the primary medium of instruction; Urdu medium schools, in which Urdu served as the primary medium of instruction; and religious schools, known as madrassahs, in which Urdu served as the primary medium of instruction. All these schools were named after the language that served as the primary medium of instruction. The language policy implemented in 2009 required teaching Urdu, English, and one regional language up to the fifth grade. After that, the instruction of mathematics and sciences might take place in either Urdu or English. After that point, English must be utilised at all times as the language of teaching, regardless of the context. According to Ammar et al. (2015), the policy was not developed with the required amount of preparation and without considering the viewpoints of teachers, curriculum designers, and school administrators when it was drafted. In addition, the policy was not entirely carried out in either urban or rural educational settings. As a direct consequence of this, Urdu is still widely used in English-language classrooms by both students and teachers (Asif et al., 2018; Manan et al., 2017). Ammar et al. (2015) stated that the struggle for power among political parties, as well as a lack of appropriate planning when drafting a language strategy, resulted in poor circumstances for studying and teaching English in Pakistan. Furthermore, when students from the three types of schools indicated above join the tertiary level of study where English is the language of instruction, they are all placed in the same classrooms. It becomes very difficult for teachers in these classrooms to meet the particular requirements of these students, who come from various educational backgrounds and have varying degrees of English proficiency.

Researchers have raised this issue and stated that Pakistan's English language teaching lacked innovation and competency, which negatively impacted the

performance of students (Abbas & Asif, 2012; Hasan & Ahmed, 2015; Shamim, 2008; Rashid, 2018; Gurmani, Latiff et al., 2022). When examining the causes of students' poor performance, researchers Abbas and Asif (2012) and Manan et al. (2017) stated that the most significant factors included outdated teaching methods, a focus on rote, crowded classrooms, poor planning when creating a syllabus, and a lack of motivation on the part of both teachers and students (Rashid, 2018).

One of the difficulties that L2 learners face in learning a second language is acquiringnew vocabulary, which may impede their acquisition of the language (Farooq et al., 2020). Researchers have indicated that when L2 learners lack English language vocabulary, their other language skills, reading, listening, speaking, and writing, may also be affected (Fareed et al., 2018; Farooq et al., 2020). Thus, having good vocabulary knowledge is fundamental to learning a language. Language learners need to be given appropriate exposure to various vocabulary items in order to be successful language learners (Nurdiansyah et al., 2019). However, vocabularylearning is a time-consuming process requiring learners to master the form and the range of meanings of specific words.

Different approaches to learning and teaching vocabulary have been introduced to resolve vocabulary-learning problems. Two popular vocabulary-learning approaches are intentional and incidental vocabulary learning (Ahmad, 2012). The former is grounded in Behaviourist learning theory and fosters a direct learning approach to the vocabulary words. For example, learning words and their meaning through the deliberate process of memorising words and meanings that are usually prepared for thetest at school (Hulstijn, 2013). Learning word lists is another example of intentional learning (Mondria & Wiersma, 2004). This approach is suitable for beginners to the language, such as L2 learners (Webb et al., 2020). While incidental vocabulary learning focuses on extensive reading and listening, for example, reading literature andwatching movies, this approach is suitable for the subconscious and long-term learningprocess (Webb et al., 2020). Using vocabulary word lists is one technique of intentional vocabulary learning (Nakata, 2008; Burkett, 2017; N.Schmit & D. Schmit, 2020). Word lists are compiled and used to help vocabulary learning by guiding the learning and teaching process by highlighting common vocabulary items frequently appearing in different sources, such as academics, medicine, and law (Durrant, 2016; Therova, 2020). As a result, time spent learning vocabulary may be directed toward learning the core vocabulary necessary for efficient language learning.

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