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RESEARCH PAPER

Investigating the Impact of WhatsApp on EFL Reading Comprehension of Intermediate Level Students in Khairpur, Sindh (Pakistan)

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ABSTRACT

The present research is highlighting WhatsApp's potential in promoting reading practice for EFL learners. It investigated the impact of WhatsApp on the reading comprehension of intermediate-level EFL students in Khairpur, Sindh, Pakistan. The researchers employed a mixed-methods approach, utilizing both qualitative and quantitative data collection techniques. The study was conducted in colleges across Khairpur Sindh, with the participant pool comprising intermediate-level EFL students from various institutions within the city. Sixty participants were recruited through face-to-face interactions and completed a printed questionnaire designed to address the research questions. Data analysis involved thematic coding and subsequently presented in tables. The study's findings suggest that utilizing WhatsApp can positively impact EFL learners' reading comprehension abilities, particularly, increased exposure to diverse texts through WhatsApp reading practices was identified as a contributing factor to skill enhancement. The research findings will prove valuable for future researchers, educators, and other stakeholders engaged in EFL learning and development.

Introduction

Literacy holds a paramount position in language acquisition for academic purposes, with an unequivocal link between reading skills and academic success. The ability to acquire knowledge and information is crucial for thriving academically, and this largely hinges on possessing proficient "reading skills" (Jalilifar, 2010). When language learners excel in reading, they can expand their academic knowledge, participate in more sophisticated social communication, and enhance their writing abilities. Research indicates that numerous students encounter challenges in comprehending written texts due to the intricate sociocultural, cognitive, and linguistic aspects of the reading process (Grabe & Stoller, 2002). Reading is viewed as a transactional process involving interaction with both the text and the context, and comprehension relies on the background knowledge, stance, purpose, and goals the reader brings to the situation (Coertze, 2011).

English as a foreign language (EFL) learners encounter numerous challenges in language acquisition, particularly influenced by social and cultural factors. Reading comprehension, a crucial aspect of EFL teaching (Ahmadi et al., 2013), becomes problematic when learners struggle to decipher written material (Iwai, 2009). Moreover, ESL/EFL researchers would find it advantageous to explore how technology tools, offering interactivity and accessibility, contribute to English language learners' improvement in reading strategies and comprehension compared to traditional paper-

based texts. The incorporation of technology, particularly tools with multimedia enrichment and visual appeal, assists instructors in integrating diverse supportive learning materials Woody, Daniel, & Baker, (2010). Imagine a ladder to limitless opportunities, and each rung is inscribed with the power of English. Its undeniable status as a global language propels it to the forefront of education, meticulously woven into the curriculum from the early steps of primary school to the expansive horizons of higher secondary (Maitlo, et al., 2023)

However, interactive social media learning systems, an emerging technology, incorporate engaging features like video and audio, holding the potential to enhance learners' reading comprehension. These systems present learning materials in a digitally appealing interface, fostering engaged learning (Muzaffar, et. al. 2019). Ebied and Rahman, (2015) note that with the introduction of platforms like WhatsApp, Facebook, and devices such as the Apple iPad, digital reading technology evolved to resemble modern tablets, meeting the literacy expectations of the new generation. These interactive features not only improve readers' engagement but also enhance reading comprehension (Amin, et al., 2023). The current generation's educational expectations differ from traditional methods, seeking active participation and engagement rather than passive learning (Ebied & Rahman, 2015). Language learners in this era anticipate technology integration in classrooms to actively participate and engage in the language learning process. Building upon existing research in EFL reading comprehension, this study investigates the unique challenges faced by intermediate-level students in Khairpur Mir's Sindh, Pakistan. It fills a crucial gap in the Pakistani context, particularly within Sindh, by examining the specific issues hindering and potentially facilitating their reading comprehension. Importantly, the study also proposes remedies and strategic learning methods to support future learners.

While difficulties with EFL reading comprehension at the college level in Sindh, Pakistan, have been documented, this study delves deeper into the specific challenges faced by intermediate students in government colleges of Khairpur district. Notably, a significant gap exists between their current English reading proficiency and the standards expected by English Language Institutions. Several factors contribute to this discrepancy, including: (a) limited reading pedagogy employed by teachers (b) constrained opportunities for extra practice due to packed schedules (c) large class sizes and demanding curricula (d) students' lower overall English proficiency. Furthermore, the lack of dedicated platforms for reading skill development compels students to resort to reading heavily through electronic media like WhatsApp, Facebook, Google, Twitter, and Instagram. This reliance on informal, often unstructured content further hinders their progress in acquiring standard EFL reading skills. Therefore, this study aims to explore the potential of utilizing WhatsApp as a platform for targeted reading comprehension instruction for intermediate-level students. This approach remains largely unexplored within the context of Sindh and holds the potential to bridge the existing gap between learners' proficiency and institutional expectations.

Literature Review

A literature review helps map existing research, sparking fresh ideas for your own study (Maitlo, et al., (2023; Jalbani, et al., 2023). Moreover, "Review of the literature summarized and evaluated the text of writing of the definite theme" Ahmad et al., (2023). By examining existing research on EFL learning in Sindh's public colleges, this review offers insights into potential problems and gaps in previous studies. This context allows us to situate our own research within a broader framework and showcase the advanced insights it brings to the field.

The rise of smartphones has ushered in a new era of mobile-assisted language learning (MALL) in both English language teaching (ELT) and English as foreign language

(EFL) classrooms. This surge stems from the near-ubiquitous ownership of mobile devices among students, making them a familiar and accessible learning tool. While research like Saritepeci, highlights WhatsApp's potential to motivate language use, concerns remain about its tendency to provide "superficial information". Building on students' existing engagement with such apps, emphasizes the need for ELT/EFL teachers to leverage their power for effective learning. This study focuses specifically on WhatsApp and its impact on EFL students. WhatsApp, a popular social networking app for chat, image sharing, document exchange, and group creation, is investigated as a learning tool within three key areas: (1) its impact on various language skills (listening, speaking, reading, writing, vocabulary, grammar, and spelling), (2) its influence on student attitudes, motivation, and anxiety related to EFL learning, and (3) its effectiveness within the specific cultural context. By examining these three factors, the study aims to shed light on WhatsApp's potential as a valuable tool for EFL in the college level context.

Several studies have explored the potential of WhatsApp for boosting students' English language learning, with positive results emerging from various contexts. Focusing on reading and writing, investigated the impact of WhatsApp among Yemeni EFL students. Their study found that the app motivated students and enhanced their reading and writing skills. He conducted an Iranian study to examine WhatsApp's effect on vocabulary acquisition. Students were divided into groups: one learning vocabulary traditionally and the other via a WhatsApp group. The WhatsApp group demonstrated improved vocabulary development. Bataineh et al., (2018) explored the impact on Jordanian students, specifically focusing on gender differences. Their findings revealed that females' outperformed males in writing tasks when using WhatsApp. Overall, these studies paint a positive picture of WhatsApp's potential to benefit English language learning across various contexts and skills. WhatsApp expanded its usage to include entertainment and connections with family and friends Gasaymeh, (2017). Recognized for uninterrupted communication anytime, anywhere Mistar and Embi, (2016), it is characterized by social grouping and collaborative learning Etim, et al., (2024). Academic communication on WhatsApp is evident, as noted by Nitza and Roman, (2016). Allagui, (2014) found that WhatsApp enhances learning and comprehension in English language classes, and Baishya and Maheshwari, (2020) observed its constructive role in group meetings among teachers and learners. Güler, (2016) highlighted WhatsApp's significance for specific learner assessments, collectively affirming its value in academic settings.

Mobile Application WhatsApp Learning

The ubiquity of mobile devices has transformed traditional approaches to work, study, and communication. Now, these devices offer convenience and effectiveness in communication, information retrieval, and entertainment. This shift is especially notable in education, both within and outside the classroom Xu, (2019). Mobile devices have become integral tools in educational settings and institutions Jin & Zhirui, (2017) constantly reshaping how we interact and learn. Learning through mobile devices, facilitated by the internet, is encapsulated in the phenomenon of mobile learning, defined by Wang, et al., (2016). As learning anytime, anywhere through mobile devices. Ally, (2009) further notes that m-learning provides individuals with flexible access to diverse learning materials, unrestricted by location and time.

History of Mobile-Learning

In the 1980s, initial studies on mobile learning (m-learning) introduced handheld devices and in some schools, limited to English teaching in classrooms Lotherington, H. (2016). By the mid-1990s, the m-learning perspective shifted with the experiences of the personal digital assistant, resembling a handheld device, influencing learning practices.

Early mobile gadgets were characterized by individuality, portability, affordability, and user-friendliness Lotherington, H. (2016). Alamer, (2023), began with events like the m-Learn conference and discussions on the impact of mobile learning on traditional classroom settings Lotherington, H. (2016). Despite ongoing research, m-learning has yet to fully integrate into classroom practices Masters, Ellaway, et al., (2016). Initially aligned with e-learning, the differences in portability, ubiquity, and mobility, along with educational aspects, became evident. Crompton, H., & Traxler, J. (2018), asserts that m-learning enhances, extends, and enriches the concept and activity of learning itself, addressing issues like reaching out to remote communities and overcoming geographical distances in information delivery.

Instructional Technology and Reading Comprehension

Technology plays a crucial role in advancing literacy development for English language learners Cummins, Brown & Sayers, (2007). It provides authentic exposure to the target language through multimodal features containing language-related text. Additionally, technology has the capacity to engage students by offering a departure from traditional classroom lectures, fostering interest in learning Numerous research findings support the positive outcomes of integrating technology into language learning curricula, particularly in improving reading comprehension.

Material and Methods

This paragraph dives into the research methodology, the crucial roadmap guiding the investigation. As Ahmad, Maitlo, and Rao, (2022) define, it's the method used to gather data and tackle the research question. Jeevan et al., (2023) further describe it as the blueprint, outlining the research design, target population, sampling technique, chosen instruments, and data collection and analysis procedures. Imagine it as a map guiding the entire research journey. In this study, exploring the diverse opinions of college students regarding WhatsApp's influence on EFL reading comprehension in Khairpur, Sindh, and researchers opted for a mixed-methods approach, blending qualitative and quantitative data collection. As Maitlo et al., (2022) point out, these tools serve diverse purposes, and their implementation hinges heavily on the chosen methodology and overall study aim engaging directly with 60 participants across different colleges in Khairpur, and the researchers utilized a printed questionnaire as their primary tool. "The population is defined as a set of individuals, data, or items from which a statistical sample is taken," aptly states Younus et al., (2023), similar to Soomro et al., (2023) definition for public secondary school English instructors in Multan district. However, it's worth noting that this study differs in terms of geographical area and participant grade level. This questionnaire effectively captured responses to the research questions through a mix of closed-ended (Part A) and open-ended (Part B) prompts. Its design drew inspiration from Ahmad, Maitlo & Rao, (2022) work, ensuring a reliable data collection structure. With careful analysis of all 60 participants' responses, researchers employed mathematical techniques to extract meaningful insights from the collected data. These findings are subsequently presented in an organized and clear manner, utilizing graphs and columns for efficient visualization.

Research Instruments

To conduct a study, the researcher employed five closed-ended and two open ended questions and collected data using 5-point Likert scale (a) agree, disagree, neutral, strongly agree, strongly disagree (b) yes/no, somewhat, much (c) faster, slightly faster, no change, slower, slightly slower, from the participants in the specified population. Following the quantitative data collection, a qualitative study was undertaken. In this qualitative phase, data were gathered through interviews and open-ended questionnaires to explore the influence of WhatsApp on EFL learners' reading

comprehension. These tools serve a multitude of purposes, and the way researchers choose to implement them depends heavily on the chosen methodology and the overall aim of the study Maitlo, et al., (2022). The subsequent section details the procedures, instruments, and analysis methods employed above in the methodology.

Data Analysis Procedures

The data was utilized for data analysis. Given that all the data originated from quantitative and qualitative methods (close-ended and open-ended) questionnaires was analyzed through thematic analysis employed to identify, analyze, and delineate broader themes aligned with the research question Braun & Clarke, (2006). The transcribed interviews served as the basis for compiling an overview of student experiences with the WhatsApp learning environment and its impact on reading comprehension.

Results and Discussion

Table 1
Do you use WhatsApp frequently for reading English material?

	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	40	47.1%	47.1%	47.1%
	Neutral	9	10.6%	10.6%	57.6%
	Disagree	11	12.9%	12.9%	70.6%
	Total	60	100%	100%	100%

Responding the above statement agreed 40 (percent and valid percent 47.1%, cumulative percent 47.1%); neutral 09 (percent and valid percent 10.6%, cumulative percent 57.6%); disagree 11 (percent and valid percent 12.9%, cumulative percent 70.6%).

Table 2
How many hours per week on average do you spend reading English on WhatsApp?

	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-2 Hours	11	12.9%	12.9%	12.9%
	3-4 Hours	33	38.8%	38.8%	51.8%
	5-6 Hours	12	14.1%	14.1%	65.9%
	7-8 Hours	4	4.7%	4.7%	70.6%
	Total	60	100%	100%	100%

Responding the above statement 1-2 Hours 11 (percent and valid percent 12.9%, cumulative percent 12.9%); 3-4 Hours 33 (percent and valid percent 38.8%, cumulative percent 51.8%); 5-6 Hours 12 (percent and valid percent 14.1%, cumulative percent 65.9%). 7-8 Hours 04 (percent and valid percent 4.7%, cumulative percent 70.6%).

Table 3
Has your WhatsApp reading improved your English vocabulary understanding?

	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	35.3%	35.3%	35.3%
	No	7	8.2%	8.2%	43.5%
	Somewhat	12	14.1%	14.1%	57.6%
	Much	11	12.9%	12.9%	70.6%
	Total	60	100%	100%	100%

Responding the above statement yes 30 (percent and valid percent 35.3%, cumulative percent 35.3%); no 7 (percent and valid percent 8.2%, cumulative percent 43.5%); Somewhat 12 (percent and valid percent 14.1%, cumulative percent 57.6%). Much 11 (percent and valid percent 12.9%, cumulative percent 70.6%).

Table 4
Do you feel more confident reading longer and complex English texts after using WhatsApp?

	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	14	16.5%	16.5%	16.5%
	Agree	17	20.0%	20.0%	36.5%
	Neutral	9	10.6%	10.6%	47.1%
	Disagree	11	12.9%	12.9%	60.0%
	Strongly disagree	9	10.6%	10.6%	71%
	Total	60	100%	100%	100%

Responding the above statement strongly agreed 14 (percent and valid percent 16.5%, cumulative percent 16.5%); agreed 17 (percent and valid percent 20.0%, cumulative percent 36.5%); neutral 09 (percent and valid percent 10.6%, cumulative percent 47.1%); disagree 11 (percent and valid percent 12.9%, cumulative percent 60.6%); strongly disagree 9 (percent and valid percent 10.6%, cumulative percent 71%).

Table 5
In your opinion, has WhatsApp helped you read English faster and more accurately?

	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Much faster	11	12.9%	12.9%	12.9%
	Slightly faster	29	34.1%	34.1%	47.1%
	No change	13	15.3%	15.3%	62.4%
	Slightly slower	4	4.7%	4.7%	67.1%
	Much slower	3	3.5%	3.5%	71%
	Total	60	100%	100%	100%

Responding the above statement much faster 11 (percent and valid percent 12.9%, cumulative percent 12.9%); Slightly faster 29 (percent and valid percent 34.1%, cumulative percent 47.1%); No change 13 (percent and valid percent 15.3%, cumulative percent 62.4%); Slightly slower 4 (percent and valid percent 4.7%, cumulative percent 67.1%); much slower 4 (percent and valid percent 4.7%, cumulative percent 71%).

Table 6
What kind of content would you like to read on WhatsApp, and how does that affect your reading comprehension?

	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chat with friends	23	27.1%	27.1%	27.1%
	Group discussion	16	18.8%	18.8%	45.9%
	Story	11	12.9%	12.9%	58.8%
	Course work	10	11.8%	11.8%	70.6%
	Total	60	100%	100%	100%

Responding the above statement Chat with friends 23 (percent and valid percent 27.1%, cumulative percent 27.1%); Group discussion 16 (percent and valid percent 18.8%, cumulative percent 45.9%); Story 11 (percent and valid percent 12.9%, cumulative percent 58.8%); Course work 10 (percent and valid percent 11.8%, cumulative percent 70.6%).

Table 7
What app do you use to practice specific reading skills like vocabulary building or inference, and how has it improved your overall comprehension?

	Response	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	WhatsApp	32	37.6%	37.6%	37.6%

Messenger	11	12.9%	12.9%	50.6%
Twitter	5	5.9%	5.9%	56.5%
Facebook	12	14.1%	14.1%	70.6%
Total	60	100%	100%	100%

Responding the above statement WhatsApp 32 (percent and valid percent 37.6%, cumulative percent 37.6%); messenger 11 (percent and valid percent 12.9%, cumulative percent 50.6%); twitter 5 (percent and valid percent 5.9%, cumulative percent 56.5%); fakebook 12 (percent and valid percent 14.1%, cumulative percent 70.6%).

Discussion

This study investigated the impact of WhatsApp on EFL reading comprehension among intermediate-level students in Khairpur, Sindh. The results revealed that these students benefit from using electronic devices to enhance their reading skills and vocabulary. This finding aligns with a previous review that also highlighted the effectiveness of technology-based approaches in language learning. During interviews, participants expressed high satisfaction and motivation with using innovative methods for reading development through mobile devices due to their convenience and accessibility. Notably, students employed various metacognitive and cognitive reading strategies, solidifying the positive impact of technology on their learning.

Moreover, the current findings highlight that highlighted cues which helped learners identify and organize information in their working memory, leading to improved reading comprehension. Mobile apps for reading comprehension development are recommended outside traditional classes, allowing more focus on productive reading skills. Despite this, the significance of reading should not be underestimated, as it is crucial for academic success, especially in comprehending extensive texts in a short time. Regarding pedagogical implications, the study suggests exploring the transfer of skills from short-term to long-term memory, identifying skills and strategies developed during digital reading, and assessing applicability to languages beyond English. The results endorse integrating apps into blended learning and stress the need for teacher training, given the constant influx of new technologies to enhance reading skills.

Conclusion

This study explored how the popular app WhatsApp can be used as a tool for learning English as a foreign language (EFL). It recognizes that such apps are deeply woven into our daily lives, and proposes leveraging students' existing engagement with them for educational purposes. The research found that using WhatsApp to learn English positively impacted reading comprehension skill, vocabulary, spelling, and grammar. This suggests that EFL students perceive WhatsApp as a valuable and enjoyable learning tool. Furthermore, the study revealed that WhatsApp motivates students to use English and reduces their anxiety related to learning the language. Based on these findings, the researchers recommend integrating WhatsApp and mobile learning in general into all stages of education, especially within the field of EFL teaching. They strongly encourage English language teachers to embrace mobile learning, given its demonstrated effectiveness and the positive student response it generates. The findings suggest that relationship between social media and reading skills. Notably, WhatsApp reading may offer modest benefits for some students, contributing to vocabulary building and potentially improving comprehension through exposure to a variety of text formats and informal language usage.

Recommendations

- Based on positive findings, recommend incorporating WhatsApp as a supplementary tool for reading comprehension exercises.
- Develop workshops and training sessions to help learners/teachers effectively integrate WhatsApp into their teaching practices.
- Encourage collaborative activities on WhatsApp to enhance peer interaction and language acquisition.
- Establish guidelines for responsible and effective use of WhatsApp as a learning tool to prevent distraction and misuse.
- Conduct periodic assessments to monitor the continued effectiveness of WhatsApp in improving reading comprehension skills.

References

Ahmad, A., Maitlo, S. K., & Rao, I. S. (2022). Teachers' Perceptions on the Use of PowerPoint Presentations in ESL Classrooms at University Level in Lahore. *Pakistan Languages and Humanities Review*, *6*(3), 489-499.

Ahmad, A., Rao, I. S., & Rao, M. S. (2023). ESL Students Anxiety in English as a Second Language Learning from The Perspective of Linguistic Skills. *Pakistan Journal of Humanities and Social Sciences*, *11*(4), 3943–3951.

Ahmadi, M., Ismail, H., & Abdullah, M. (2013). The importance of metacognitive reading strategy awareness in reading comprehension. *English Language Teaching*, *6*, 235-244.

Allagui, B. (2014). Writing through WhatsApp: an evaluation of students writing performance. *International Journal of Mobile Learning and Organization*, *8*(3-4), 216-231.

Amin, S., Farhat, P. A., Maitlo, S. K., & Soomro, A. R. (2023). Transformation of Creative Process Through Self-Translation: A Comparative Analysis of Abdullah Hussain's Novels. *Pakistan Journal of Humanities and Social Sciences, 11*(3), 3469-3478.

Bataineh, R. F., Al-Hamad, R. F., & Al-Jamal, D. A. (2018). Gender and EFL writing: Does WhatsApp make a difference? *Teaching English with Technology*, *18*(2), 21-33.

Alamer, A., & Al Khateeb, A. (2023). Effects of using the WhatsApp application on language learner's motivation: a controlled investigation using structural equation modelling. *Computer Assisted Language Learning*, *36*(1-2), 149-175.

Baishya, D., & Maheshwari, S. (2020). WhatsApp groups in academic context: Exploring the academic uses of WhatsApp groups among the students. *Contemporary educational technology*, *11*(1), 31-46.

Binti Mistar, I., & Embi, M. A. (2016). Students 'perception on the use of WhatsApp as a learning tool in ESL classroom. *Journal of Education and Social Sciences*, *4*(6), 96-104.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, *3*(2), 77.

Cheema, M. I., Maitlo, S. K., Ahmad, A., & Jalbani, A. N. (2023). Analyzing the Portrayal of The Characters in Cathrine Mansfield's Literary Novel Bliss by Using Critical Discourse Analysis. *International Journal of Contemporary Issues in Social Sciences (IJCISS), 2*(4), 225-231.

Crompton, H., & Traxler, J. (2018). *Mobile Learning and Higher Education*. Routledge.

Cummins, J., Brown, K., & Sayers, D. (2007). *Literacy, technology, and diversity: Teaching for success in changing times*. Boston, MA: Allyn and Bacon.

Coertze, L. (2011). *An investigation of ESL students' reading engagement and language output in selected online environments*. (Unpublished Master Thesis). Iowa State University, USA.

Ebied, M. & Rahman, S. (2015). The effect of interactive E-book on students' achievement at Najran University in computer in education course. *Journal of Education and Practice, 6*(19),71–83.

Etim, A. S., & Olatokun, W. M. (2024). The Use of Mobile Technology Tools and Apps to Support Students' Learning Goals: A Study of Two Federal Universities in Nigeria. In *Adoption and Use of Technology Tools and Services by Economically Disadvantaged Communities: Implications for Growth and Sustainability* (pp. 1-20). IGI Global.

Gasaymeh, A. M. M. (2017). University students' use of WhatsApp and their perceptions regarding its possible integration into their education. *Global Journal of Computer Science and Technology*, *17*(1), 1-9.

Grabe, W. & Stoller, F. (2002). *Teaching and researching reading*. Harlow: Pearson Education.

Güler, Ç. (2017). Use of WhatsApp in higher education: What's up with assessing peers anonymously? *Journal of Educational Computing Research*, *55*(2), 272-289.

Iwai, Y. (2009). *Metacognitive awareness and strategy use in academic English reading among adult English as a second language (ESL) students.* (Unpublished doctoral dissertation). University of Southern Mississippi, USA.

Jalbani, A. N., Ahmad, A., & Maitlo, S. K. (2023). A Comparative Study to Evaluate ESL Learners' Proficiency and Attitudes towards English Language. *Global Language Review, VIII*(II), 446-455.

Jeevan, S., Maitlo, S. K., & Jalbani, A. N. (2023). Effectiveness of Employing the English Language as a Medium of Instruction in ESL Learning in the Pakistani Educational System. *Global Educational Studies Review, VIII*, 8, 496-505.

Jin, W., & Zhirui, D. (2017). Research on mobile learning model of college English based on WeChat platform. *Eurasia Journal of Mathematics, Science and Technology Education*, *13*(8), 5847-5853.

Lotherington, H. (2016). What's app. *Negotiating the good, bad, and ugly of apps for (English and other) language learning.* Canadian Society for the Study of Education, CHSS, Calgary, AB, 1-23.

Masters, K., Ellaway, R. H., Topps, D., Archibald, D., & Hogue, R. J. (2016). Mobile technologies in medical education: AMEE Guide No. 105. *Medical teacher*, *38*(6), 537-549.

Maitlo, S. K., Tumrani, G. A., & Ali, S. (2022). Factors Affecting Speaking and Listening Skills of English Language Learners at Secondary School Level in Sindh, *Pakistan. Journal of Development and Social Sciences*, 3(2), 875-884.

Maitlo, S. K., Tumrani, G. A., & Farhat, P. A. (2023). Comparative Analysis of ESL Learning in Public and Private Sectors at Primary Level in District Khairpur. *Global Language Review, VIII*(I), 216-227.

Maitlo, S. K., Ahmad, A., Ali, S., & Soomro, A. R. (2023). Exploring Errors and Mistakes in the Structure of Grammar at University Level in Khairpur Mir's Sindh. *International Journal of Contemporary Issues in Social Sciences,* (IJCISS), 2(4), 2-8

Maitlo, S. K., Soomro, A. R., & Lashari, A. A. (2023). The Impact of Picture Series Learning on the Creative Writing Skills of ESL Learners. *Global Digital & Print Media Review, VI*, 211-223.

Muzaffar, M., Chohdhry, S., & Afzal, N. (2019). Social Media and Political Awareness in Pakistan: A Case Study of Youth, *Pakistan Social Sciences Review*, 3 (II), 1-13

Nitza, D., & Roman, Y. (2016). WhatsApp Messaging: Achievements and Success in Academia. *International Journal of Higher Education*, *5*(4), 255-261.

Soomro, A.R., Abbasi, I.A. and Kalhoro, I.A. (2023). A Study on Difficulties in Teaching Grammar to English Learners at Secondary Level in District Multan. *Journal of Policy Research. 9*(2), 382–389.

Wang, W. Y., Pauleen, D. J., & Zhang, T. (2016). How social media applications affect B2B communication and improve business performance in SMEs. *Industrial Marketing Management*, *54*, 4-14.

Woody, W., Daniel, D., & Baker, C. (2010). E-books or textbooks: Students prefer textbooks. *Computers & Education*, *55*(3), 945–948.

Xu, M., Liu, J., Liu, Y., Lin, F. X., Liu, Y., & Liu, X. (2019, May). A first look at deep learning apps on smartphones. In *The World Wide Web Conference* (pp. 2125-2136).

Younus, J. ., Farhat, P. A. ., & Ahmad, A. (2023). Analyzing The Factors Involvement in Declining Kalasha Language. *Pakistan Journal of Humanities and Social Sciences, 11*(3), 3520–3529.