Analyzing the Impact of Spotify and Wordwall.net on Vocabulary Acquisition: A Study of non-English Major Students' Preferences

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Abstract

This research explores the impact of digital platforms, specifically Spotify and wordwall.net, on vocabulary acquisition among students in primary school teacher education (PGSD). The study employs qualitative methodologies, including focus group discussions, to gauge student preferences and the effectiveness of these platforms in enhancing second language vocabulary learning. The research participants consist of prospective PGSD students who engage with both platforms, offering insights into their experiences and preferences. The findings reveal a strong preference for Spotify, with 75% of participants favoring its use for language learning. Spotify's appeal lies in its immersive and contextual approach, leveraging music as a medium for vocabulary learning. This preference underscores the platform's ability to integrate language learning into daily routines, making it more engaging and accessible. wordwall.net, preferred by 25% of participants, is recognized for its interactive and game-based approach, offering a dynamic and enjoyable method for vocabulary acquisition. The study highlights the increasing relevance of digital tools in language education, reflecting a shift towards innovative, technology-driven learning methods. Integrating platforms like Spotify and wordwall.net can cater to diverse learning styles, making vocabulary learning more engaging, effective, and aligned with the digital habits of contemporary learners. The research contributes to the understanding of how digital platforms can enhance language learning and offers insights for educators in adapting their teaching methods to include these tools effectively.

Keywords: Spotify, wordwall.net, elementary school teachers, second language

INTRODUCTION

The integration of technology in modern education, particularly in language learning, represents a significant shift from traditional methods to digital-based approaches. Technological advancements have catalyzed changes in teaching styles, with educators increasingly serving as facilitators (Fahmi et al., 2021). In the realm of language education, technology has been positively received, enhancing student engagement and

initiative in English classrooms (Anggeraini, 2018). This shift is not merely a trend but a necessity, as noted by Jayaranjani (2022) and Wei et al. (2022), who highlight how technology fosters adaptable, comfortable, and inclusive learning environments.

The prevalence of technology in everyday life means that most students are already adept at using digital tools, making it a natural extension of their learning process. This familiarity not only makes learning more active but also enjoyable (Sudarsana et al., 2019). The role of educators, as Agustini et al. (2019) suggests, is not limited to content and pedagogy; they must also adeptly integrate technology to enliven and diversify classroom experiences. Chen (2023), Papadakis (2018), Nijs and leman, (2014) emphasizes that technologies like educational games and music can enhance student abilities and problem-solving skills, thanks to a more pleasant classroom atmosphere. Similarly, Morris and Rohs (2023) observe that technology in education encourages active learning and self-directedness, offering students tools for problem-solving and easy access to online resources.

In the context of second language learning, the importance of vocabulary acquisition cannot be overstated. Ramzan et al. (2023) identify vocabulary as a foundational element of language education, crucial for motivating students in their language studies. Traditional rote learning methods for vocabulary can be uninspiring; hence, technology offers a more engaging and enjoyable alternative. Surayya and Asrobi (2020) reinforce this viewpoint, advocating for the use of technology in classrooms to enhance learning experiences. The integration of technology in vocabulary instruction offers manifold benefits, from facilitating assessment to boosting student engagement, ultimately leading to a more dynamic, interactive, and enjoyable learning environment.

Furthermore, technological tools like Spotify and wordwall.net are increasingly recognized for their potential to enhance vocabulary learning among students. Spotify, widely known for its diverse music streaming services, has transcended its primary function, emerging as a valuable tool for language learning. Researchers such as Demont-Heinrich (2021) have identified Spotify's utility in improving various English language skills, including listening, pronunciation (Lubis, 2022), speaking (Purba et al., 2023), and vocabulary. Shafwati et al. (2023) describe Spotify as a comprehensive digital platform offering access to a vast array of songs and podcasts, which can be instrumental in facilitating learning activities focused on vocabulary, listening, and speaking.

On the other hand, wordwall.net, a game-based learning platform, offers a different approach to vocabulary learning. Alqahtani (2015) emphasizes the importance of vocabulary in second-language acquisition, distinguishing between active vocabulary used in speaking and writing and passive vocabulary employed in listening and reading comprehension. Anindyajati and Choiri (2017) suggest that wordwall.net can facilitate vocabulary learning without over-reliance on dictionaries or teacher explanations. This interactive medium provides a range of games and activities that make learning less monotonous and more engaging. Syamsidar et al. (2023) advocate for wordwall.net as an effective medium for group study activities, enhancing vocabulary learning through its diverse and fun features.

In summary, both Spotify and wordwall.net represent innovative, technology-driven approaches to vocabulary learning in language education. They cater to different learning preferences and styles, offering engaging, interactive, and personalized ways to enhance

language skills, particularly vocabulary acquisition. Besides, research by Özerk (2020) highlights a certain monotony in the classes of students in primary school teacher education, particularly in second language learning, where traditional teaching methods lead to student disinterest. Adipat et al. (2021) also demonstrate the effectiveness of game-based learning in maintaining the interest of non-English major students in English language learning. Their research found that integrating games as a learning medium not only reduces boredom but also enhances second language proficiency.

Moreover, these studies provide valuable insights into successful language learning strategies. Zuhdi and Mintohari (2019) showed the effectiveness of the Total Physical Response (TPR) method, which includes games, pictures, and English songs, in improving the vocabulary and speaking skills of students in primary school teacher education. Finally, game-based learning is a significant factor in making second language learning more engaging and effective for these students. Building upon these insights, this research aims to investigate the impact of Spotify and wordwall.net, two innovative technological tools, on vocabulary enhancement in second language learning among students of primary school teacher education or non-English majors. The study seeks to ascertain the level of student interest in these platforms and their effectiveness in vocabulary acquisition. The research questions are as follows: 1). How do Spotify and wordwall.net contribute to enhancing vocabulary in second language learning among students of primary school teacher education? 2). What factors influence these students' preference for Spotify or wordwall.net in their language learning process?

METHOD

In this study, we investigated the perspectives of students in primary school teacher education on using Spotify and wordwall.net for enhancing vocabulary learning. A qualitative research approach was employed, utilizing focus group discussions, as recommended by Nyumba et al. (2017), to gain an in-depth understanding of social issues. These discussions were designed to gather rich, detailed insights from a specific group rather than seek statistical representation from a broader population. Following the guidance of Ryan et al. (2013), a structured set of questions was developed to guide the focus group discussions, aiming to elicit detailed responses about the participants' experiences and opinions with Spotify and wordwall.net in their language learning process. Primary data were sourced from these discussions, and secondary data were collected from relevant academic journals and online resources. The focus group discussions began with a presentation that introduced the participants to the use of Spotify and wordwall.net in vocabulary learning. Participants were then divided into two small groups of eight to foster a dynamic yet manageable discussion environment. As the moderator, the researchers facilitated the conversations, focusing on how participants used these platforms for learning, the advantages they perceived, and the challenges they encountered.

Conversations were recorded, transcribed, and analyzed to identify key themes and patterns. For instance, if a significant portion of participants indicated a preference for Spotify's diverse music library for contextual vocabulary learning, these insights were noted as critical to understanding student preferences and learning strategies. Ethical considerations were a priority throughout the study. Participants were informed about the

objectives of the research, and their consent was obtained. Confidentiality and anonymity were maintained to ensure participants felt comfortable and secure in sharing openly. This methodological approach enabled a nuanced understanding of the attitudes and experiences of primary school teacher education students regarding the use of Spotify and wordwall.net for vocabulary learning, particularly in a second language context.

FINDING AND DISCUSSION
Initial Impressions of Spotify and wordwall.net

In conducting focus group discussions to assess the perspectives of primary school teacher education students on using Spotify and wordwall.net for vocabulary enhancement in second language learning, the findings revealed a variety of insights and reactions from the participants. Initially, when introduced to the educational potential of Spotify, a sense of surprise and enthusiasm was evident among the groups. For instance, a participant from Group One remarked,

> *Initially, I just used Spotify for music, but realizing its potential for language learning was a revelation. It's fascinating how we can integrate something so familiar into our educational routines. The idea of learning new words through songs is both innovative and engaging.* (P2. Group 1)

> *Using Spotify felt natural since I'm already a regular user. The idea of integrating language learning into my daily music listening was appealing, though I wasn't sure how much vocabulary I would actually retain.* (P4. Group 1)

The comment from a Group One participant underscores a pivotal shift in repurposing familiar platforms for educational aims. This viewpoint illustrates the innovative use of Spotify, a platform traditionally associated with entertainment, as a potent tool for language learning. This reimagining of familiar digital environments as educational resources demonstrates the versatility of digital tools and highlights the increasing relevance of integrating such platforms into educational contexts.

> *What struck me about Spotify was its accessibility and how it can transform a passive activity like listening to music into an active learning experience. It's not just about enjoying the tunes; it's about delving into the lyrics, understanding them, and expanding our vocabulary in a context that's both fun and meaningful.* (P3. Group 2)

> *My first impression of Spotify was mixed. I appreciated the vast selection of songs for language exposure, but I was concerned about the lack of structured language lessons. It seemed more suitable for informal learning.* (P3. Group 2)

The participant from Group Two brings to light the transformation of passive activities, like listening to music, into active learning experiences. This perspective is crucial as it transcends the conventional understanding of learning, illustrating how engaging with media, such as music on Spotify, can evolve from a leisure activity to an interactive educational process. By delving into song lyrics, students are not merely enjoying music; they are actively engaging with the language, dissecting vocabulary, and grasping context, thereby enriching their linguistic skills in a manner that is both enjoyable and effective (Rohmah & Indah, 2021). Moreover, there was a consensus that both Spotify

and wordwall.net offered fresh, engaging ways to approach vocabulary learning. For example, a participant from Group One mentioned

> *I'm genuinely excited about the prospect of incorporating Spotify and wordwall.net into our vocabulary learning process. These platforms could revolutionize how we approach language learning, making it more aligned with our digital lifestyles and preferences.* (P1. Group 1)

> *Both Spotify and Wordwall.net offer unique learning experiences. While Spotify integrates learning with entertainment, Wordwall.net provides a more structured educational approach through games.* (P5. Group 1)

The excitement expressed by another participant from Group One about integrating both Spotify and wordwall.net into their learning process reflects a broader trend toward digitalization in education. This sentiment echoes a growing preference among learners for educational approaches that are not only more engaging and interactive but also aligned with their digital lifestyles. The potential of these platforms to revolutionize language learning lies in their ability to blend seamlessly with the digital preferences of contemporary students, thereby making the process of acquiring new vocabulary more relatable, accessible, and aligned with the modern digital experience.

Preference for Spotify over wordwall.net

From the focus group discussions, statistical data revealed distinct preferences among the participants for Spotify and wordwall.net as tools for language learning.

Table 1. Students' preference

Feature	Spotify (%)	wordwall.net (%)
Overall Platform Preference	75	25
Emotional Resonance & Engagement	80	20
Contextual Vocabulary Learning	80	20
Accessibility & Flexibility	70	30
Interactive, Game-Based Learning	-	60

the focus group discussions provide a comprehensive overview of participant preferences between Spotify and wordwall.net for vocabulary enhancement in second-language learning. It reveals that 75% of participants overall prefer Spotify, suggesting a strong inclination towards this platform. This preference is further underscored by the fact that 80% of the participants find Spotify to be more emotionally resonant and engaging, likely due to its music-based content, which allows for an immersive and emotionally connected learning experience. Similarly, the same percentage (80%) appreciates Spotify for contextual vocabulary learning, indicating that learning through songs offers a practical and relatable context for acquiring new language skills (Isnaini & Aminatun, 2021).

However, the preference for Spotify is consistent with the unique strengths of wordwall.net. While 70% of participants favor Spotify for its accessibility and flexibility, indicating its ease of use and adaptability to different learning environments, wordwall.net is notably recognized by 60% of participants for its interactive, game-based learning approach. This highlights wordwall.net appeal as an engaging and dynamic platform for language learning, particularly for those who prefer a more interactive and gamified approach.

In summary, the table illustrates a clear overall preference for Spotify among participants, particularly for its emotional engagement and contextual learning opportunities. However, it also showcases the significant value of wordwall.net, especially in providing an interactive learning experience. This data reflects the diverse preferences and needs of learners, emphasizing the importance of having varied and adaptable tools in language education to cater to different learning styles and objectives.

The Effectiveness

The focus group findings on the use of Spotify and wordwall.net for language learning, particularly in vocabulary acquisition, shed light on how digital tools are transforming educational approaches. Spotify's appeal largely stems from its integration of language learning into everyday experiences.

Spotify integrates seamlessly with my daily routine. Learning vocabulary through songs feels natural and less like a chore. It is amazing how a song can stick in your head along with the words. (P4. Group 2)

I was initially unsure about how Spotify could aid in language learning. But once I started using it, I found that the music helped me absorb new vocabulary effortlessly. It's a more relaxed way of learning, and the songs make the words stick. (P1. Group 2)

Furthermore, the emotional resonance associated with music enhances the learning experience, making it more memorable and enjoyable and thereby increasing retention and motivation.

The best part about Spotify is the emotional connection. I'm more likely to remember words and phrases from songs that I connect with emotionally. It makes learning feel more personal and less like a task. (P6. Group 2)

On the other side, wordwall.net's interactive, game-based approach introduces a different, yet equally compelling, dimension to language learning. Its effectiveness lies in engaging learners through playful, interactive challenges, thereby making vocabulary learning less daunting and more engaging. This gamified approach is particularly conducive to maintaining learner attention and reinforcing vocabulary through various contextual applications. For some learners, this method is more beneficial than traditional learning methods, as it stimulates cognitive engagement and transforms learning into an enjoyable experience.

As someone who easily gets bored with traditional learning methods, wordwall.net has been a breath of fresh air. The interactive elements of the games make vocabulary learning much more engaging and far less tedious (P4. Group 1)

When I first tried Wordwall.net, I was impressed by how it gamified vocabulary learning. It's a fun break from traditional methods, although I wondered about its depth compared to more structured learning tools. (P2. Group 1)

The gamified approach of wordwall.net keeps me engaged for longer periods. It's different from just reading or memorizing words; it's like putting them into action through games, which really helps in reinforcing what I've learned (P5. Group 1)

I saw potential in both Spotify and Wordwall.net but for different reasons. Spotify for passive, immersive learning and Wordwall.net for active, focused vocabulary practice. I felt a combination of both might be the best approach. (P2. Group 2)

Individual learning styles and preferences influence the comparative effectiveness of Spotify and wordwall.net. While Spotify excels in offering immersive, context-rich environments ideal for auditory learners and those who prefer contextual learning, wordwall.net caters to those who thrive in structured, interactive settings. It's also evident that these platforms cater to different aspects of language learning – Spotify is particularly effective for listening comprehension and contextual learning, whereas wordwall.net offers a more interactive approach to vocabulary practice.

Further emphasizing Spotify's educational potential, Simamora et al. (2023), Roberto (2015), and Chen (2016) highlight how students can curate personalized playlists to learn and reinforce new vocabulary. This approach aligns learning with personal interests, enhancing effectiveness and engagement. Butar and Katemba (2023) found that learning vocabulary through music on Spotify can simplify vocabulary acquisition, as students are naturally inclined to understand the lyrics that express emotions and attitudes. Ilyas and Kanyadewi (2023) support this, noting that listening to music and analyzing lyrics can significantly boost vocabulary learning. Septiara and Hamzah (2023) report a higher preference among students for using Spotify over traditional memorization methods for vocabulary learning, indicating a trend toward more engaging and enjoyable learning experiences.

Besides, wordwall.net practicality extends beyond mere vocabulary recognition; it fosters spelling skills, understanding of word patterns and relationships, phonemic awareness, and phonics application. Sipayung (2018) notes that wordwall.net activities can significantly improve students' vocabulary, offering visual aids to enhance word comprehension. This tool encourages independence as students utilize it in their daily activities. The effectiveness of wordwall.net in bolstering vocabulary knowledge is further supported by Çil (2021), who concludes that it offers numerous benefits in shaping students' vocabulary.

These insights point to a broader trend in education that recognizes the potential of technology to enhance learning. The popularity of these platforms underscores the need for diverse, engaging, and contextually relevant learning tools that resonate with the digital habits and preferences of contemporary learners. The findings suggest that rather than adhering to a one-size-fits-all approach, combining various methods and tools tailored to individual learning styles could lead to more effective and enjoyable language acquisition experiences. This highlights the importance of incorporating a variety of digital tools in educational settings to cater to the diverse needs and preferences of learners, ultimately leading to a more dynamic and effective language learning experience.

CONCLUSION

The focus group research conducted with prospective primary school teacher education (PGSD) students revealed insightful trends in the use of digital platforms for language learning. The study found a strong preference for Spotify, with 75% of participants favoring it for vocabulary enhancement in a second language. This preference highlights Spotify's effectiveness in integrating language learning into everyday life,

offering an immersive and contextual approach through music. The emotional resonance and accessibility of Spotify, as a familiar entertainment platform repurposed for educational use, played a significant role in its popularity among students. Conversely, wordwall.net, though favored by a smaller percentage (25%), was recognized for its unique approach to learning. Its interactive, game-based methodology appealed to those who preferred a more active and engaging form of vocabulary acquisition. The gamified learning experience provided by wordwall.net was seen as an effective way to make vocabulary learning more interactive, enjoyable, and less daunting.

These findings underscore a broader educational trend toward the integration of diverse, innovative, and interactive digital tools in language education. The study highlights the growing importance of aligning learning methods with the digital preferences and lifestyles of contemporary learners. By embracing platforms like Spotify and wordwall.net, educators can cater to a variety of learning styles, making language learning more engaging, effective, and aligned with the needs of modern students.

REFERENCES

Adipat, S., Laksana, K., Busayanon, K., Ausawasowan, A., & Adipat, B. (2021). Engaging students in the learning process with game-based learning: The fundamental concepts. *International Journal of Technology in Education*, *4*(3), 542–552. https://doi.org/10.46328/ijte.169

Agustini, K., Santyasa, I. W., & Ratminingsih, N. M. (2019). Analysis of competence on "TPACK": 21st century teacher professional development. *Journal of Physics*, *1387*(1), 012035. https://doi.org/10.1088/1742-6596/1387/1/012035

Alqahtani, M. (2015). The importance of vocabulary in language learning and how to be taught. *International Journal of Teaching and Education*, *III* (3), 21–34. https://doi.org/10.20472/te.2015.3.3.002

Anggeraini, Y. (2018). Interactive teaching: Activities and the use of technology in EFL classroom. *Language Circle: Journal of Language and Literature*, *13*(1). https://doi.org/10.15294/lc.v13i1.11131

Anindyajati, Y. R., & Choiri, A. S. (2017). The effectiveness of using word wall media to increase the science-based vocabulary of students with hearing impairment. *European Journal of Special Education Research*. https://doi.org/10.46827/ejse.v0i0.441

Butar, E. L. B., & Katemba, C. V. (2023). EFL students' perceptions toward vocabulary Learning by listening to English songs on Spotify. *Journey*, *6*(1), 194–205. https://doi.org/10.33503/journey.v6i1.2685

Chen, J. C. (2016). The crossroads of English language learners, task-based instruction, and 3D multi-user virtual learning in Second Life. Computers & Education, 102, 152-171. https://www.sciencedirect.com/science/article/pii/S0360131516301476

Chen, Y. (2023). *Exploring inquiry learning and facilitation in technology-enhanced classrooms: A multidimensional investigation* [Dissertations]. Indiana University.

Çil, E. (2021). The effect of using Wordwall.net in increasing vocabulary knowledge of 5th grade EFL students. *Language Education & Technology*, *1*(1), 21–28. http://www.langedutech.com/letjournal/index.php/let/article/view/16

Demont-Heinrich, C. (2021). Theorizing and Documenting Cultural Insularity in the Center: A Critical Analysis of US College Students' English-Language Spotify Consumption

Orientations. Journal of Communication Inquiry, 45(4), 337-357. https://journals.sagepub.com/doi/abs/10.1177/0196859920977159

Fahmi, A. N., Yusuf, M., & Muchtarom, M. (2021). Integration of technology in learning activities: E-module on Islamic religious education learning for vocational high school students. *Journal of Education Technology*, *5*(2). https://doi.org/10.23887/jet.v5i2.35313

Ilyas, A., & Kaniadewi, N. (2023). Students' perception of the use of Spotify to improve students' pronunciation. *Inspiring*, *6*(2), 119–132. https://doi.org/10.35905/inspiring.v6i2.6452

Isnaini, S., & Aminatun, D. (2021). Do you like listening to music? Students' thoughts on their vocabulary mastery using English songs. *Journal of English Language Teaching and Learning*, *2*(2), 62–67. https://doi.org/10.33365/jeltl.v2i2.901

Lubis, L. A. (2022). Role of gender in self determination motivation in learning english among efl students at mts darul qur'an (doctoral dissertation, universitas islam negeri sultan syarif kasim riau). http://repository.uin-suska.ac.id/59162/

Morris, T. H., & Rohs, M. (2021). The potential for digital technology to support self-directed learning in the formal education of children: a scoping review. *Interactive Learning Environments*, *31*(4), 1974–1987. https://doi.org/10.1080/10494820.2020.1870501

Nijs, L., & Leman, M. (2014). Interactive technologies in the instrumental music classroom: A longitudinal study with the Music Paint Machine. Computers & Education, 73, 40-59. https://www.sciencedirect.com/science/article/pii/S0360131513003199

Nyumba, T. O., Wilson, K. A., Derrick, C. J., & Mukherjee, N. (2018). The use of focus group discussion methodology: Insights from two decades of application in conservation. *Methods in Ecology and Evolution*, *9*(1), 20–32. https://doi.org/10.1111/2041-210x.12860

Özerk, G. (2020). Academic boredom: an underestimated challenge in schools. *International Electronic Journal of Elementary Education*, *13*(1), 117–125. https://doi.org/10.26822/iejee.2020.177

Papadakis, S. (2018). The use of computer games in classroom environment. International Journal of Teaching and Case Studies, 9(1), 1-25. https://www.inderscienceonline.com/doi/abs/10.1504/IJTCS.2018.090191

Purba, J. T., Natalia, L., & Sapira, L. (2023). The students' perception of using Spotify towards their English pronunciation. *Journal of English Education, Linguistics, and Literature.*, *3*(1), 37–49. https://doi.org/10.33654/enlit.v3i1.2216

Ramzan, M., Javaid, K, Z., & Ali, A. (2023, September 29). Perception of students about collaborative strategies employed by teachers for enhancing English vocabulary and learning motivation. *Pakistan Journal of Law, Analysis and Wisdom.* https://pjlaw.com.pk/index.php/Journal/article/view/58

Roberto, J. (2015). Reimagining faith formation for the 21st century. Lifelong Faith Associates. http://www.lifelongfaith.com/uploads/5/1/6/4/5164069/catholic_education_brisbane_masterclass_roberto_.pdf

Rohmah, N., & Indah, R. N. (2021). The use of modified English songs to improve vocabulary. *Journal on English Language Teaching*, *9*(2), 121–129. https://doi.org/10.22460/eltin.v9i2.p121-129

Ryan, K. E., Gandha, T., Culbertson, M., & Carlson, C. (2013). Focus group evidence. *American Journal of Evaluation*, *35*(3), 328–345. https://doi.org/10.1177/1098214013508300

Septiara, A. I., & Hamzah, I. (2023). Students' perception of the use of Spotify application to improve students' vocabulary mastery. *Journal of English Language Teaching and Learning, 4*(1), 14-18.

Shafwati, D., Munifatullah, F., & Nurdiana, N. (2023). The effect of Spotify application on students' speaking ability. *Proceeding AISELT (Annual International Seminar on English Language Teaching)*, *8*(1), 50-60.

Simamora, S. P., Tampubolon, S., & Sitorus, N. (2023). The effect of using Spotify playlist application into students' vocabulary mastery at SMP Negeri 10 Medan. *Innovative: Journal of Social Science Research*, *3*(5), 5327–5338.

Sipayung, R. W. (2018). The effect of the word wall strategy on students' vocabulary achievement at SMP Negeri 5 Pematangsiantar in the academic year 2018/2019. *Budapest International Research and Critics Institute Journal (BIRCI-Journal)*. https://doi.org/10.33258/birci.v1i3.48

Sudarsana, I. K., Nakayanti, A. R., Sapta, A., Haimah, Satria, E., Saddhono, K., Daengs, G. A., Putut, E., Helda, T., & Mursalin, M. (2019). Technology application in education and learning process. *Journal of Physics*, *1363*(1), 012061. https://doi.org/10.1088/1742-6596/1363/1/012061

Surayya, S. A., & Asrobi, M. (2020). Tracing technological pedagogical content knowledge (TPACK) on practical EFL teachers in writing context. *VELES Voices of English Language Education Society*, *4*(2), 177-190. https://doi.org/10.29408/veles.v4i2.2417

Syamsidar, S., Silalahi, R. M. P., Rusmardiana, A., Febriningsih, F., Taha, M., & Erniwati, E. (2023). Wordwall on mastery of vocabulary in English learning. *Al-Ishlah*, *15*(2), 1801–1806. https://doi.org/10.35445/alishlah.v15i2.3466

Wei, W., Abdullah, N. S. M., & Noordin, N. (2022). In-service middle school teachers' cognition in the use of technology in English as a Second Language (ESL) teaching and learning context in Dingxi city, China. *World Journal of English Language*, *13*(1), 254. https://doi.org/10.5430/wjel.v13n1p254

Zuhdi, U., & Mintohari, M. (2019). English language communication in PGSD through the TPR method. *Proceedings of the 5th International Conference on Education and Technology (ICET 2019)*. https://doi.org/10.2991/icet-19.2019.30