IDEAS

Students' Perception of Using Webtoon Application to Enrich English Vocabulary

Gustianingsih Ika Putri[1], Fadly Azhar[2], Supriusman[3]
[1,2,3]Pendidikan Bahasa Inggris, FKIP Universitas Riau
Corresponding Email: gustianingsih.ika0165@student.unri.ac.id

Abstract

This research aimed to investigate the perceptions of the third-year students of the English Department Universitas Riau in using the Webtoon application to enrich English vocabulary. This research used a quantitative descriptive method approach and involved 30 students selected through purposive sampling. Data were gathered via a Likert-scale-based questionnaire distributed via WhatsApp. The findings showed a generally positive perception among students concerning the Webtoon application's usefulness, ease of use, and attitude toward using. This can be seen from the questionnaire's mean score, which reached 4.04, involving perceived usefulness (3.87), perceived ease of use (4.15), and attitude towards using (4.10). This research also found that most Webtoon application users are females, who tend to have more positive perceptions than males. In addition, students who used the free version and those who spent more time using the application showed better perceptions of vocabulary enrichment than those who used the paid version. In conclusion, third-year students of the English Department Universitas Riau positively perceive using the Webtoon application for vocabulary enrichment. They find it accessible, easy to use, and effective in enhancing their vocabulary and confidence in English through its engaging visual and narrative features.

Keywords: *Webtoon application, enriching English vocabulary, student perceptions*.

Introduction

The fourth industrial revolution, or Industry 4.0, has brought technology into every aspect of our lives. Additionally, technology has brought about enough conveniences in various aspects of human life. For instance, one of the biggest influences of technology is its ability to transfer information rapidly (Alsharif & Alyousef, 2017). Just by using a smartphone, transferring information is now very easy to access and share with people, whenever and wherever they live. Along with technological development, online data has replaced conventional information

communication methods through printed documents for decades.

Since so many different applications have been developed that may be used for numerous purposes, it has impacted how individuals read and learn. According to Shen (2006), the reading preferences of English as a Foreign Language (EFL) students have changed from reading on paper to reading online. Nowadays, English learners can easily get learning materials or use various applications to help them learn English. These developments benefit English language learning in general, especially vocabulary.

English consists of four essential components: reading, writing, speaking, and listening. However, students must have strong vocabulary skills to improve all these aspects of the language and the most challenging aspect of learning English is the difficulty of memorizing vocabulary. Vocabulary is an integral part of a language; humans require a vocabulary to develop a language, regardless of the language. According to Zimmerman (1997), the definition of vocabulary is central to language and of critical importance to typical language learning. This demonstrates that expanding vocabulary would no longer be a controversial topic.

Therefore, vocabulary is the first step in a communication process utilizing a particular language. The current situation suggests that language instruction may be difficult since students do not enjoy vocabulary learning. The challenges associated with vocabulary learning may generally be separated into two categories: the first is a lack of engagement during the process, and the second is a shortage of creative teaching methods (Wulandari et al., 2019). Therefore, future English teachers must find new methods or ways to increase students' interest in learning vocabulary. Teachers must use innovative teaching and learning strategies and raise students' motivation to learn to maximize their interest.

Nowadays, students have access to technology that offers a continuous connection to friends and family. Their daily lives are constantly impacted by their smartphones. They may access various applications on their smartphones that help expand their vocabulary. Talking about applications, there are now various online comic platforms that can improve and enrich students' knowledge in vocabulary, such as Webtoon, Mangatoon, Tappytoon, Tapas, and so on. In this case, the researcher chose the Webtoon application which has become increasingly popular as a media to enrich English vocabulary.

Webtoon combines two English words, 'web' and 'toon', which means comics published on a website. Webtoon, a popular application among the general population, is highly regarded for its vibrant design, captivating animations, and user-friendly interface (Novanti & Suprayogi, 2021). Its colorful and appealing visuals have contributed to its widespread popularity. This application not only provides entertainment but also has significant educational potential. Many Webtoons are available in English to expose users to new vocabulary in an interesting and easy-to-understand context.

Moreover, this online comic application is accessible on various devices, including smartphones and computers, enabling English learners to easily download and utilize it at their convenience, regardless of time and location.

Previous research discusses the Webtoon application and its relationship with English vocabulary. Research conducted by Wulandari et al. (2019), titled "The Effectiveness of Webtoon for EFL Students in Mastering Vocabulary," showed that using Webtoon application for vocabulary learning in the classroom generates greater student interest and motivation. Other research by Efendi (2019), in "The Use of Webtoon in Learning and Mastering Vocabulary: English Learners' Perceptions" stated that Webtoon application have a positive impact on English learners as they serve as a valuable resource for enhancing vocabulary skills.

Next, the research conducted by Novanti & Suprayogi (2021) entitled "Webtoon Potentials to Enhance EFL Students' Vocabulary," explained that the internet and the ease of access to Webtoon application, one of the platforms that have been successful in becoming a means of learning English vocabulary in the modern period, are helpful for Generation Z to learn foreign languages pleasantly. Then, in research entitled "The Use of Line Webtoon Comic Strips to Upgrade Students' Vocabulary Mastery" by Maharani (2021), explained that the ultimate result makes a strong case for using the Webtoon application as an online media for expanding and improving students' vocabularies.

Despite the previous research highlighting the positive impact of Webtoon application on vocabulary mastery and student engagement, there still appears to be a gap in the existing literature. The mentioned studies mainly focus on the effectiveness of the Webtoon application as a tool for enhancing vocabulary skills and generating interest in language learning. However, they did not explicitly explore the English students' perception of using Webtoon application to enrich English vocabulary which is the novelty of this research.

Based on the research background mentioned above, the researcher is interested in conducting research entitled "The Perceptions of the Third Year Students of the English Department Universitas Riau in Using Webtoon Application to Enrich English Vocabulary," which aims to bridge the previously mentioned gap by investigating the perceptions of third-year students of the English Department Universitas Riau in utilizing Webtoon application to enriching English vocabulary. Third-year students of the English Department Universitas Riau were chosen as the subject of this research because, through interviews with several third-year students, it was found that they actively use the Webtoon application as media to enrich their vocabulary. By understanding students' perceptions, this research is expected to provide valuable insights into how they perceive Webtoon application as learning media.

Method

This research used a quantitative descriptive method approach. This research aimed to investigate the perceptions of the third-year students of the English Department Universitas Riau in using the Webtoon application to enrich English vocabulary. Furthermore, quantitative descriptive research aims to describe and interpret the current situation or state of individuals, groups, conditions, or events (Mertler in Andarwulan et al., 2021).

The population of this research was third-year students of the English Department Universitas Riau. In this research, the sample was selected using a purposive sampling technique. Fauzy (2019) explained that purposive sampling is a method that deliberately selects samples that fulfill the specific criteria needed. The characteristics of the sample in this research are third-year students of the English Department Universitas Riau who use the Webtoon application.

In this research, the researcher used a close-ended questionnaire that uses a Likert scale to measure the respondent's level of agreement or disagreement with the questions asked.

Table 1: The Blueprint of Questionnaire

Variable	Indicator	Item Number	Total Item	Reference
The Perceptions of the Third-Year Students of the English Department Universitas Riau in Using Webtoon Application to Enrich English Vocabulary	Usefulness	1, 2, 3, 4, 5, 6, 7	7	Kaloso (2020) Sonita et al. (2024)
	Ease of Use	8, 9, 10, 11, 12, 13, 14	7	Wati (2020) Angelica and Katemba (2023) Harpain et al. (2023) Sonita et al. (2024)
	Attitude	15, 16, 17, 18, 19, 20, 21	7	Kaloso (2020) Harpain et al. (2023) Sonita et al. (2024)

The blueprint above became the reference for the researcher to adjust in determining the questionnaires distributed to respondents to collect data. The questionnaire used in this research consisted of 21 questions and was designed using the Google Form platform and distributed in the form of a link to all respondents via WhatsApp. Data collected using questionnaires were transferred to Microsoft Excel after respondents completed the questionnaire. Furthermore, the data was analyzed using SPSS 29.

Results

Before describing the results of the questionnaire, the researcher first described the demographic data that characterized the respondents. Based on the results of the questionnaire regarding demographic questions, it is known that the gender of the respondents who filled out the questionnaire is as follows:

Table 2: Gender of Respondents

Gender	Frequency	Percent (%)
Male	4	13.3
Female	26	86.7
Total	30	100

Table 2 shows that out of the total 30 respondents, 4 were males, representing 13.3% of the overall sample. Meanwhile, the other 26 respondents were females, which was 86.7% of the total sample. Thus, it can be concluded that the majority of respondents in this research are females.

The description of the characteristics of respondents based on age is presented in the following table:

Table 3: Age of Respondents

Age	Frequency	Percent (%)
18	0	0
19	7	23.3
20	19	63.3
21	3	10
22	1	3.3
Total	30	100

Table 3 displays that no respondents were 18 years old, while 7 respondents (23.3%) were 19 years old. A total of 19 respondents (63.3%) were 20 years old, 3 respondents (10%) were 21 years old, and only 1 respondent (3.3%) was 22 years old. This age distribution is appropriate given that the research respondents are third-year students of the English Department Universitas Riau. In general, third-year students are in that age range, so these results accurately describe the target population.

The following is a table related to what version of the Webtoon application is often used by respondents:

Table 4: Version of the Webtoon Application Used by Respondents

Version of the Webtoon Application	Frequency	Percent (%)
Free	28	93.3
Paid	2	6.7
Total	30	100

In Table 4, it can be seen that the majority of respondents use the free version of the Webtoon application, with 28 respondents or 93.3%. Meanwhile, only 2 respondents, or 6.7% use the paid version. This paid version means that students use coins to read webtoons earlier than the free version.

The following table shows the length of time respondents use the Webtoon application:

Table 5: Length of Time Using Webtoon Application by Respondents

Length of Time Using Webtoon Application	Frequency	Percent (%)
Less than one hour	13	43.3
More than one hour	17	56.7
Total	30	100

Based on Table 5, out of 30 respondents, 13 people (43.3%) use the Webtoon application for less than an hour, while 17 people (56.7%) use the application for more than an hour. This shows that the majority of respondents, more than half, tend to spend more than one hour using the Webtoon application.

After the researcher displayed the questionnaire results on demographic questions, the researcher then presented the results of the main questionnaire. This questionnaire consists of 3 indicators, namely Perceived Usefulness, Perceived Ease of Use, and Attitude Towards Using.

Table 6: The Finding of Perceived Usefulness

No.	Statements	Mean	Interpretation
1.	Using the Webtoon application is effective to enrich my English vocabulary.	3.53	High
2.	Using the Webtoon application motivates me to increase my understanding of English vocabulary.	3.87	High
3.	Using the Webtoon application allows me to learn new vocabulary more efficiently.	3.97	High
4.	Using the Webtoon application helps me to memorize new English vocabulary better.	3.93	High
5.	Using the Webtoon application helps me understand the use of English vocabulary in daily contexts.	3.90	High
6.	Using the Webtoon application is useful to expand my English vocabulary such as verbs, nouns, adverbs.	3.97	High
7.	Using the Webtoon application improves my ability to use newly learned English vocabulary in conversation.	3.97	High
The Overall Mean Score		**3.87 (High)**	

Table 6 shows that statements number 3, 6, and 7 had the highest mean score, which was 3.97, indicating that respondents have a positive perspective on this usefulness. Meanwhile, statement number 1 has the lowest mean score of 3.53, although it is still in the high category. Overall, the perceived usefulness of using the Webtoon application among respondents showed a positive perception with an overall mean score of 3.87.

Table 7: The Finding of Perceived Ease of Use

No.	Statements	Mean	Interpretation
8.	The Webtoon application is easy to access anytime and anywhere.	4.40	Very High
9.	The Webtoon application is easy to use to read comics in English.	4.10	High
10.	The Webtoon application has features that are easy to understand and use.	4.27	Very High
11.	The Webtoon application has clear and intuitive navigation.	4.07	High
12.	The Webtoon application is comfortable to use without the help of other people.	4.30	Very High
13.	The Webtoon application is free from confusion and technical difficulties when used.	3.93	High
14.	The Webtoon application has a professional and user-friendly interface design.	4.03	High
The Overall Mean Score		**4.15 (High)**	

Table 7 displays that the statement with the highest mean score was number 8 with a mean score of 4.40, which indicates that respondents have a positive perspective that the Webtoon application is easy to access anytime and anywhere. Meanwhile, the statement with the lowest mean score was number 13 with a mean score of 3.93, although it was also still in the high score category. Overall, the perceived ease of use of the Webtoon application showed a positive perception with an overall mean score of 4.15.

Table 8: The Finding of Attitude Towards Using

No.	Statements	Mean	Interpretation
15.	I think using the Webtoon application to enrich English vocabulary is interesting.	4.03	High
16.	I think using the Webtoon application to learn English vocabulary is a good idea.	4.07	High
17.	I think reading comics on the Webtoon application while learning English vocabulary is fun.	4.23	Very High

18.	I think I feel motivated to learn a lot of English vocabulary from the Webtoon application.	4.03	High
19.	I think using the Webtoon application to acquire new English vocabulary such as verbs, nouns, adverbs is not boring.	4.13	High
20.	I think I am willing to continue using the Webtoon application to enrich my English vocabulary.	4.10	High
21.	I think I am satisfied with my experience using the Webtoon application to learn English vocabulary.	4.13	High
The Overall Mean Score		**4.10 (High)**	

Table 8 illustrates that the statement with the highest mean score was number 17 with a mean score of 4.23, which indicates that respondents have a positive perspective that reading comics on the Webtoon application while learning English vocabulary is a fun activity. Meanwhile, the statements with the lowest mean scores were number 15 and 18, both with a mean score of 4.03, although of course still in the high score category. Overall, the attitude towards using the Webtoon application showed a high score with an overall mean score of 4.10.

Table 9: The Result of Research Indicators

Indicator	Sample	Min	Max	Mean	Interpretation
Perceived Usefulness	30	2	5	3.87	High
Perceived Ease of Use	30	2	5	4.15	High
Attitude Towards Using	30	3	5	4.10	High
Average				**4.04**	**High**

Table 9 demonstrates the results of research indicators. The overall mean score of these three indicators was (4.04), which was in the high category. Based on the results obtained, perceived ease of use has the highest mean score (4.15) while perceived usefulness has the lowest mean score among the three indicators, but was still in the high category (3.87). This indicates that students positively perceive using the Webtoon application to enrich their English vocabulary.

The results of the overall indicators were also divided based on demographic variables such as gender, age, version of the Webtoon application used, and length of time using the Webtoon application.

Table 10: Students Perception Based on Gender

Gender	Likert Scale					N	Max Score	Score	Mean	Percent (%)	Category
	SD	D	N	A	SA						
Male	0	0	26	52	6	84	420	316	3.76	75.2	Positive
Female	0	12	99	263	172	546	2730	2233	4.09	81.8	Very Positive
Average								1275	3.93	78.5	Positive

Table 10 indicates that overall, students have a positive perception of using the Webtoon application with an average (78.5%), although females (81.8%) tend to be more positive than males (75.2%).

Table 11: Students Perception Based on Age

Age	Likert Scale					N	Max Score	Score	Mean	Percent (%)	Category
	SD	D	N	A	SA						
18th	0	0	0	0	0	0	0	0	0	0	-
19th	0	7	22	98	20	147	735	572	3.89	77.8	Positive
20th	0	4	96	164	135	399	1995	1627	4.08	81.6	Very Positive
21th	0	1	7	32	23	63	315	266	4.22	84.4	Very Positive
22th	0	0	0	21	0	21	105	84	4.00	80.0	Very Positive
Average								509.8	3.24	64.8	Positive

Table 11 demonstrates that the overall average for the age groups is (64.8%), which falls into the 'Positive' category. With the 20 (81.6%), 21 (84.4%), and 22 (80%) year old age groups have very positive results.

Table 12: Students Perception Based on Version of the Webtoon Application

Version of the Webtoon App	Likert Scale					N	Max Score	Score	Mean	Percent (%)	Category
	SD	D	N	A	SA						
Free	0	11	105	300	172	588	2940	2397	4.08	81.5	Very Positive
Paid	0	1	20	15	6	42	210	152	3.62	72.4	Positive
Average								1274.5	3.85	77.0	Positive

Table 12 displays that both groups have a positive perception of the use of the Webtoon application with the overall average (77%), although users of the free version (81.5%) have a more positive perception than users of the paid version (72.4%).

Table 13: Students Perception Based on Length of Time Using Webtoon Application

Length of Time Using Webtoon App	Likert Scale					N	Max Score	Score	Mean	Percent (%)	Category
	SD	D	N	A	SA						
Less than one hour	0	0	73	181	19	273	1365	1038	3.80	76.0	Positive
More than one hour	0	12	52	134	159	357	1785	1511	4.23	84.6	Very Positive
Average								1274.5	4.02	80.3	Very Positive

Table 13 illustrates that students who use the application for more than one hour have the highest result of (84.6%), which was in the "Very Positive" category, than students who use the application for less than an hour (76.0%), which was in the "Positive" category. The results of this research showed that the longer students use the Webtoon application, the more positive their perception of its use to enrich English vocabulary with the overall average (80.3%).

Discussion

The findings of this research showed that third-year students of the English Department Universitas Riau have a positive perception of using the Webtoon application to enrich their English vocabulary.

The findings showed that third-year students of the English Department Universitas Riau generally perceive Webtoon application as useful media for vocabulary acquisition. High average scores on various indicators of perceived usefulness indicate that students believe using the Webtoon application can enrich their English vocabulary as well as help them learn and apply new words, including verbs, nouns, and adverbs, more efficiently. This finding was supported by Maharani (2021) research, which found that using Line Webtoon comics can increase students' vocabulary such as verbs and nouns because this application trains them to remember new English words more easily.

The findings showed that the perceived ease of use of Webtoon application among third-year students of the English Department Universitas Riau was generally positive. In this research, students showed a high level of agreement with statements regarding the Webtoon application being easily accessible anytime and anywhere such as using a laptop, tablet, or smartphone. This was consistent with the findings of previous research by Wati (2020), which highlighted the ease of access to the Webtoon application by users in many ways, such as Google, Facebook, and Line accounts. In addition, Stockwell (2010) explained that this accessibility supports consistent and continuous learning, which is crucial for vocabulary retention and mastery.

Next, the findings indicated a positive attitude among third-year students of the English Department Universitas Riau. Students generally agreed with statements regarding the fun they felt when using the Webtoon application to read comics while learning English. The visual and narrative elements of the Webtoon application provide a contextualized learning experience that makes vocabulary acquisition more intuitive and memorable. This was consistent with the findings of Wulandari et al. (2019)who found that using the Webtoon application is an interesting thing in students' learning process and thought that Webtoon is very fun. Furthermore, this finding was also supported by Octaberlina and Rofiki (2021) statement that vocabulary is too important to be ignored, so vocabulary learning requires more sophisticated and interesting media.

As supporting data, the researcher also divided the perceptions of third-year students of the English Department Universitas Riau in using the Webtoon application to enrich English vocabulary based on demographic data such as gender, age, version of the Webtoon application used, and length of time using the Webtoon application.

Based on the analysis of the previous demographic data, the majority of respondents in this research were females. Overall, students have a positive perception of the use of Webtoon application to enrich English vocabulary

although females tend to be more positive than males. This matches the research findings from Reilly et al. (2019) which stated that females have significantly greater reading ability than males.

In right-handed males, cerebral areas responsible for language control tend to be centered in the left hemisphere, but in females, these areas are more often distributed across both hemispheres, left and right (Shaywitz et al., 1995). This even distribution of language functions might give females an edge in language tasks, which could explain the difference in ability between males and females (Reilly et al., 2019). Furthermore, in terms of the age of respondents, which was 19-22 years old, the researcher found that there was no significant difference and the majority of students had a positive perception of the use of Webtoon application to enrich English vocabulary.

This finding was supported by previous research from Angelica and Katemba (2023) which stated that there was no significant difference between students aged between 17-22 years old because they came from the same generation, the Millennial Z generation. Moreover, this was also following the current phenomenon that the younger generation is more adaptive to digital technology.

In addition, students' perceptions in terms of the version of using the Webtoon application, based on the results of the previous data analysis, the majority of respondents in this research used the free version of the Webtoon application. The findings of this research showed that both groups have a positive perception of the usability of the Webtoon application, although users of the free version have a more positive perception than users of the paid version. This can be interpreted through the Technology Acceptance Model (TAM) theory developed by Davis (1989), which suggested that perceived usefulness is one of the main factors influencing technology acceptance. In this context, the free version of the Webtoon application is perceived more positively because students feel there is no significant difference with the paid version other than being able to read the webtoon earlier than the free version.

Lastly, students' perception was seen from the length of time using the Webtoon application. The findings of this research showed that the longer students use the Webtoon application, the more positive their perceptions of its use to enrich English vocabulary. This result was relevant to the TAM theory proposed by Davis (1989), that the more often or longer a person uses a technology, the more they will realize the benefits or usefulness of the technology. In the context of this research, the longer students use the Webtoon application, the more they feel the benefits of the application to enrich their English vocabulary.

Conclusion

Based on discussions, this research shows that third-year students of the English Department Universitas Riau have a positive perception in using the Webtoon application to enrich their English vocabulary. They feel that the Webtoon application not only helps in learning and remembering new words more

efficiently but also facilitates the use of vocabulary in daily conversation, improving their fluency and confidence in speaking English.

In addition, students also consider that the Webtoon application is easy to use. They feel that the application is easily accessible on various devices which allows them to use the Webtoon application anytime and anywhere. The intuitive and easy-to-use features of the Webtoon application make it an effective media, even though it is not specifically designed for learning. Furthermore, students' attitudes towards using the Webtoon application are also positive. They enjoy the process of enriching their vocabulary through this application, which is not only effective but also fun due to the visual and narrative elements that facilitate comprehension and recall of new vocabulary.

This research also found that the majority of Webtoon application users among third-year students of the English Department Universitas Riau are females who show more positive perceptions than males. There is no significant difference based on age, the majority of students use the free version of the application and show better perceptions than students who use the paid version. In addition, the longer the students used the application, the more positive they perceived its benefits for enriching English vocabulary.

References

Akarsu, O., & Darıyemez, T. (2014). The reading habits of university students studying English language and literature in the digital age. Journal of Language and Linguistic Studies, 10(2), 85-99.

Ar, N. A. E., & Syam, A. T. (2024). Increasing Students' Reading Skills Using Reading Box in Junior High School. IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature, 12(2), 1249-1260.

Andarwulan, T., Al Fajri, T. A., & Damayanti, G. (2021). Elementary Teachers' Readiness toward the Online Learning Policy in the New Normal Era during Covid-19. International Journal of Instruction, 14(3), 771–786. https://doi.org/10.29333/iji.2021.14345a

Angelica, B., & Katemba, C. V. (2023). EFL Students' Perception on Webtoon: Reading Activity. PANYONARA: Journal of English Education, 5(1), 17-29.

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. MIS Quarterly: Management Information Systems, 13(3), 319–340. https://doi.org/10.2307/249008

Efendi, R. A. (2019). The Use of Webtoon in Learning and Mastering Vocabulary: English Learners' Perceptions. Efendi, 1–12.

Fauzy, A. (2019). Metode sampling. Universitas Terbuka, 9(1).

Harpain, Sidabalok, D. M., & Anita. (2023). Analyzing Student Perception on Using Webtoon as a Learning Medium for Reading Comprehension. International Journal of Educational Studies in Social Sciences, 3(2), 34–41. https://doi.org/10.53402/ijesss.v3i2.362

Kaloso, R. (2020). Students' Perceptions of Online Games in Enhancing Vocabulary Acquisition. IAIN Manado.

Maharani, L. P. (2021). The Use of Line Webtoon Comic Strips To Upgrade Students' Vocabulary Mastery. Yavana Bhasha : Journal of English Language Education, 4(2), 30. https://doi.org/10.25078/yb.v4i2.2769

Novanti, E. A., & Suprayogi, S. (2021). Webtoons Potentials to Enhance EFL Student's Vocabulary. Journal of Research on Language Education, 2(2), 83. https://doi.org/10.33365/jorle.v2i2.1311

Octaberlina, L. R., & Rofiki, I. (2021). Using Online Game for Indonesian EFL Learners to Enrich Vocabulary. International Journal of Interactive Mobile Technologies, 15(1), 168–183. https://doi.org/10.3991/IJIM.V15I01.17513

Reilly, D., Neumann, D. L., & Andrews, G. (2019). Gender Differences in Reading and Writing Achievement: Evidence From the National Assessment of Educational Progress (NAEP). American Psychologist, 74(4), 445–458. https://doi.org/10.1037/amp0000356

Shaywitz, B. A., Shaywltz, S. E., Pugh, K. R., Constable, R. T., Skudlarski, P., Fulbright, R. K., ... & Gore, J. C. (1995). Sex differences in the functional organization of the brain for language. Nature, 373(6515), 607-609.

Shen, L. (2006). Computer Technology and College Students' Reading Habits. Chianan Annual Bulletin. Vol. 32, PP. 559-572. Retrieved on September 28, 2013 from http://lib.chna.edu.tw/ bulletin/files/v32_559_572.pdf

Sonita, T., Nurlaily, & Priambada, H. R. (2024). Students' Perceptions on the Use of Online Role-Playing Games to Enhance Their Vocabulary Knowledge. Professional Journal of English Education (PROJECT), 7(1), 73–89.

Sudirman, A. M., & Meriyani, I. (2025). Utilizing of Project-Based Learning to Increase Students' Vocabulary Mastery at the Tenth Grade of Senior High School. IDEAS: Journal on English Language Teaching and Learning, Linguistics and Literature, 13(1), 1206-1219.

Stockwell, G. (2010). Using Mobile Phones for Vocabulary Activities: Examining the Effect of the Platform. Language Learning and Technology, 14(2), 95–110.

Wati, W. (2020). Persepsi Mahasiswa Pengguna Webtoon pada Genre di Aplikasi Webtoon (Studi pada Mahasiswa Universitas Islam Negeri Raden Fatah Palembang).

Wulandari, R. A., Lestari, R. E., & Utami, S. L. (2019). The Effectiveness of Webtoon for EFL Students in Mastering Vocabulary. Conference Of English Language and Literature (CELL), 1, 1–10.

Zimmerman. C. 1997. Historical Trends in Second Language Vocabulary Instruction. In J. Coady and T. Huckin (Eds.), Second Language Vocabulary Acquisition. Cambridge: Cambridge University Press.