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The Effect Of Wordsearch Puzzle Game On English Vocabulary Mastery At Seventh Grade Of SMP Swasta Mars Pematangsiantar

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Abstrak

Peneliti memutuskan untuk menerapkan permainan pencarian kata dalam penelitian ini. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh penggunaan permainan kata tersembunyi terhadap kemampuan kosakata bahasa Inggris di kelas tujuh SMP Swasta Mars Pematangsiantar pada tahun ajaran 2023/2024. Penelitian ini menggunakan desain kuasi eksperimen dengan metode kuantitatif. Dalam penelitian ini, peneliti menggunakan dua kelas, yaitu kelas eksperimen dan kelas kontrol. Peneliti mengambil populasi kelas VII dengan jumlah 50 siswa. Untuk sampelnya, jumlah siswa yang diambil sama pada kelas eksperimen dan kelas kontrol, yaitu 25 siswa. Sampel untuk kelas eksperimen adalah kelas VII-A dan sampel untuk kelas kontrol adalah kelas VII-B. Siswa dipilih dengan menggunakan teknik purposive sampling. Untuk menganalisis data, para peneliti menggunakan rumus uji-t untuk menentukan apakah penggunaan permainan pencarian kata mempengaruhi penguasaan kosakata bahasa Inggris. Setelah menganalisis data, hasil dari penelitian ini menunjukkan nilai rata-rata pre-test dan post-test pada kelas eksperimen dan nilai rata-rata pre-test dan post-test pada kelas kontrol. Pada kelas eksperimen, nilai rata-rata pre-test adalah 55,6 dan nilai rata-rata post-test adalah 76. Pada kelas kontrol, nilai rata-rata pre-test adalah 60 dan nilai rata-rata post-test adalah 69,4. Standar deviasi untuk kelas eksperimen adalah 5,746 dan standar deviasi untuk kelas kontrol adalah 666. Setelah menghitung nilai rata-rata dan standar deviasi dari kedua kelas tersebut, peneliti menghitung dengan menggunakan rumus uji-t, diperoleh hasil t-hitung lebih besar daripada t-tabel dengan taraf signifikansi 5% ($3,374 > 1,677$). Menyimpulkan bahwa hipotesis alternatif (H_a) diterima dan hipotesis nol (H_0) ditolak. Oleh karena itu, dapat disimpulkan bahwa penggunaan permainan teka-teki Wordsearch berpengaruh terhadap penguasaan kosakata bahasa Inggris, khususnya di kelas tujuh.

Kata Kunci: Penguasaan Kosakata, Permainan Puzzle, Pencarian Kata

Abstract

The researcher decided to apply wordsearch games in this study. The purpose of this study was to determine the effect of using hidden word games on English vocabulary skills in grade seven of Mars Pematangsiantar Private Junior High School in the 2023/2024 school year. This study used a quasi-experimental design with quantitative methods. In this study, researchers used two classes, namely the experimental class and the control class. Researchers took the population of class VII with a total of 50 students. For the sample, the number of students taken was the same in the experimental and control classes, namely 25 students. The sample for the experimental class was class VII-A and the sample for the control class was class VII-B. Students were selected using purposive sampling technique. To analyze the data, the researchers used the t-test formula to determine whether the use of wordsearch games affects the mastery of English vocabulary. After analyzing the data, the results of this study showed the average pre-test and post-test scores of the experimental class and the average pre-test and post-test scores of the control class. In the experimental class, the mean pre-test score was 55.6 and the mean post-test score was 76. In the control class, the mean value of the pre-test was 60 and the mean value of the post-test was 69.4. The standard deviation for the experimental class was 5.746 and the standard deviation for the control class was 666. After calculating the average value and standard deviation of the two classes, the researcher calculated using the t-test formula, the t-count result was greater than the t-table with a significance level of 5% ($3.374 > 1.677$). Based on these results, the researcher concluded that the alternative hypothesis (H_a) was accepted and the null hypothesis (H_0) was rejected. Therefore, it can be concluded that the use of Wordsearch puzzle game has an effect on English vocabulary acquisition, especially in grade seven.

Keywords: *Vocabulary Mastery, Puzzle Game, Wordsearch*

INTRODUCTION

Language is a means of communication that allows mutual understanding and knowledge between humans. Humans are naturally social beings that need interaction to communicate with those in their environment. According to Harmer, "Language is a structured means of articulating thoughts or emotions through standardized symbols, sounds, gestures, or markings with agreed-upon meanings". English, as a global language, is indispensable for individuals who wish to engage in cross-cultural communication. According to Harmer (Ahmadah et al., 2020), "Many people acquire English proficiency with the aim of facilitating international communication and travel." Often, English language learners do not have a specific motive for attending language classes, but aspire to achieve proficiency in speaking, reading, and writing English for practical use in a variety of contexts (Fordington & Brown, 2020).

English is an international language and plays a significant role in communicating internationally. Many individuals desire to expand their English vocabulary and improve their English skills. English plays a vital part in schooling. Language has been learned at all educational levels. English language teaching is implemented in schools because the aim is to help students acquire better language skills, including the ability to understand correct grammar and sentence structure, as well as expand their English vocabulary. In addition, students can also access information more easily from a variety of sources, such as books, films, music and the internet (Papadakis et al., 2018). According to Richards (2015), "Learning English is imperative for the current generation to adapt to global communication, literature, and professional environments in both present and future contexts". The significance of English learning is acknowledged widely, with many individuals recognizing its importance for global communication (Setiana et al., 2019). One aspect of language learning is vocabulary, which holds particular importance. By prioritizing vocabulary instruction, students can comprehend, retain, and apply new words more effectively, thereby facilitating their learning process. Mastery of vocabulary is essential in English language education to ensure students' confidence and progress in learning.

Vocabulary is the most critical part of learning a language. Vocabulary consists of the words used in language to communicate orally and in writing. Vocabulary is also an essential element in communication. The Vocabulary used mostly determines the meaning of an expression. With Vocabulary, it will be easier for us to understand English. According to Alqahtani (Zulfa et al., 2020), "Vocabulary mastery is a person's ability to use words in a language, which is obtained based on their interests, needs, and motivations". In addition, having a vocabulary can help one in conveying their ideas to others. This is very important in English language teaching and learning as effective vocabulary acquisition is considered as the main goal for students. On the other hand, vocabulary is essential in English learning because students cannot understand or express themselves without vocabulary. According to Richards (Muswaroh, 2018), "Vocabulary is an essential component of language skills that is the basis of how effectively students speak, listen, read, and write". This shows that we cannot master all four language skills without a strong vocabulary. Vocabulary is very important because it is the basis for mastering all four language skills. Learning vocabulary both for learners of English as a foreign language and as a second language is very important. According to Octaviani et al, they believe that "Vocabulary is used to express ideas, feelings, or information to others clearly. Vocabulary may be an important part of learning English, but it is also an essential part of learning English. Without mastering

vocabulary, students cannot convey the meaning of the words, and it will be difficult to communicate in both written and oral forms”.

A game is an engaging and enjoyable activity characterized by a set of rules, typically played either individually or in a group setting. According to Hadfield (1998:6), as cited in Maylani et al. (Nurwita, 2019), “A game involves rules, a defined goal, and an element of enjoyment; furthermore, games can also support educational objectives”. In the context of vocabulary teaching, teachers can use games as a fun method for students to improve their vocabulary (Che Dalim et al., 2020). Vossoughi and Zargar, cited in Maylani, stated that “Playing games can make learning vocabulary more fun”. Students are expected to be happy and have fun learning English by having a game. They will not feel bored and be able to learn English effectively.

Wordsearch puzzles are a type of game used to help students learn vocabulary. A wordsearch puzzle consists of hidden words that aim to help students find the words hidden. Vossoughi and Zargar, cited in Maylani et al., defined “Wordsearch puzzle as a game where letters are arranged in a grid, and students try to find listed words in different directions like horizontally, vertically, diagonally, and even backward”. In simple terms, a wordsearch puzzle is a game where students find hidden words on a grid. This game helps students learn words and also allows them to suggest clues. According to Al-Furqon (Astutik et al., 2020), “Teachers can use wordsearch puzzles to make learning English vocabulary more interesting”. In this activity, students have pictures to help them understand the words they are searching for. They can also write down the words and their meanings. Wordsearch puzzles are not only fun but also help students learn new words. This is just one of the many activities teachers can use to help students improve their vocabulary (Konstantakis et al., 2022).

The researcher experience when teaching practice at Junior High School was that there were factors why students had difficulty in mastering vocabulary. The first factor was that students had a limited vocabulary. For example, students who don't read often may not learn many new words, slowing their vocabulary growth. The second factor is that students find it difficult to memorize vocabulary. For example, if students only learn new words without using them in conversations or writing, they might discover recalling them difficult. The third factor is teachers' lack of motivation for students to learn English. For example, students might be unmotivated and disinterested in learning English if the teacher lacks enthusiasm and interest in teaching. The fourth factor is that The English teacher doesn't use games to support them in studying and memorizing vocabulary. For example, the teacher's use of traditional technology forces the students to learn new terminology without

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the aid of the game. It caused students to become uninterested in learning new words. They said that although they had no trouble memorizing or accepting the English lessons the teacher had given them, they also needed help remembering them (Hidayati, 2018).

METHOD RESEARCH

This research used quantitative research, and the research design is a quasi-experiment design. According to Creswell, "Quantitative research involves testing theories by exploring the relationship between variables". These variables, in turn, measurable and analyzed using statistical procedures. The researcher used a quasi-experimental design. Creswell (Chika Pratama, 2019) explains, "Quasi-experimental includes giving assignments, but not assigning participants to groups". The quasi-experimental design is used because schedules cannot be disrupted in a typical school situation, or classes can be reorganized into existing courses or other groups (Derakhshan & Khatir, 2015). In this research, the researcher chose the sample selection using the purposive sampling technique to select the research design. In this research, two comprised two groups: an experimental class and a control class. The experimental class utilized Wordsearch puzzles as a method to teach vocabulary in nouns, whereas the control class employed the conventional approach to teaching vocabulary in nouns.

This research was conducted at SMP Swasta Mars Pematangsiantar, Jl. Ahmad Yani No. 400 Pematangsiantar. The research was conducted on April 2024 for the academic year 2023/2024.

The researcher selected two classes, totaling 50 students, to serve as samples. One class was designated as the experimental class, while the other served as the control class. The control class comprised individuals who did not receive any altered treatment and were treated conventionally or without the use of Wordsearch. The experimental class consisted of individuals who received the treatment or utilized Wordsearch. Two classes, namely VII-A and VII-B, were used for sampling (Iswara et al., 2023). The main class, VII-A, was the experimental class, and VII-B was the control class. The sampling used a purposive sampling technique. The purposive sampling technique selected individuals or cases for research based on specific criteria that aligned with the research objective and purpose. The sample for this research included two classes: VII-A, comprising 25 students, assigned to the experimental class, and VII-B, comprising another 25 students, assigned to the control class at SMP Swasta Mars Pematangsiantar, totaling 50 students.

RESULT AND DISCUSSION

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Data Description

In this research, a quasi-experimental approach was employed, as mentioned in the previous chapter. Data was collected from seventh-grade students at SMP Swasta Mars Pematangsiantar, comprising a sample of 50 students. Class VII-A served as the experimental class, while class VII-B served as the control class. Data was gathered through a multiple choice test (Cieza & Lujan, 2018). The experimental class used Wordsearch puzzle game in the experimental class and conventional learning in the control class.

Table 1. Students scores of the Experimental Class

EXPERIMENTAL CLASS			
No.	Initial Name	Pre-test	Post-test
1.	AS	75	90
2.	AEPD	60	85
3.	CSMT	55	85
4.	CJS	75	85
5.	CS	65	90
6.	DTS	50	50
7.	EDS	60	85
8.	ES	40	90
9.	FSS	55	65
10.	IWPS	70	90
11.	JMS	45	75
12.	JSW	75	85
13.	JPL	65	65
14.	KES	45	55
15.	KNT	60	80
16.	MGDS	45	55
17.	PAS	55	60
18.	QAS	50	75
19.	REP	75	90
20.	TL	70	80
21.	TPS	50	60
22.	TAP	45	70
23.	YBGS	60	85
24.	AL	25	60
25.	RA	20	90
	Σ	1390	1900

In the experimental class, the researcher implemented the Wordsearch Puzzle Game as a treatment for the students. The experimental procedure included administering a pre-test, applying the treatment, and conducting a post-test. The test consisted of 20 multiple choice questions, with students awarded 5 points for each correct answer. In the pre-test of the experimental class (VII-A), the mean score was 55,6, with scores ranging from 20 to 75. After the pre-test, the researcher conducted the treatment using the Wordsearch puzzle game. In the post-test of the experimental class (VII-A), the mean score was 76, with scores ranging from 55 to 90. The findings indicated a significant increase between the pre-test and post-test scores. The following table presents the students' scores for both the pre-test and post-test.

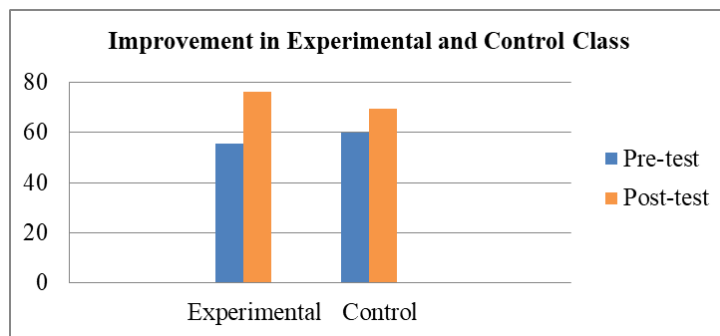


Figure 1. Improvement in Experimental and Control Class

After calculating the mean scores of the pre-test and post-test for both the experimental and control class, the researcher presented the combined results in a graph. This graph illustrates the progress made in English vocabulary mastery. From the figure, it is evident that there was an improvement in the students' scores, particularly after the treatment. The experimental group, which received instruction through wordsearch puzzle games, exhibited a notable increase in scores. Specifically, the mean score for the experimental class increased from 55.6 in the pre-test to 76 in the post-test. In comparison, the control class, which used conventional teaching methods, saw a smaller improvement, with the mean score rising from 60 in the pre-test to 69.4 in the post-test. The experimental class showed a greater improvement of 20.4 points, whereas the control class improved by 9.4 points. This disparity underscores the effectiveness of the treatment in enhancing vocabulary mastery, as evidenced by the higher improvement observed in the experimental class compared to the control class.

Testing Hypothesis

Hypothesis testing in this study utilized an independent T-test to compare two sets of unrelated data. This test was designed to assess the effect of using the Wordsearch puzzle game as a learning tool in the experimental class compared to traditional textbook-based instruction in the control class. By analyzing the post-test scores of both groups, the

researcher developed a null hypothesis (H_0) and an alternative hypothesis (H_a). The t-test result was 3.374, with the degrees of freedom (df) calculated as $(n_1 + n_2 - 2)$, which equals 48. So the t-test resulted was 1,677. The result of the t-test reckon showed that observe was higher than t-table as followed: $t_{test} > t_{table}$ at level $t = 0,05$ that was $(3,374 > 1,677)$, the alternative hypothesis (H_a) is accepted, and the null hypothesis (H_0) is rejected.

This finding reveals a significant difference between the post-test scores of the experimental class and the control class. In other words, that there was a significant effect of using the Wordsearch puzzle game on English vocabulary mastery in class SMP Swasta Mars Pematangsiantar.

Research Findings

This research proved that using Wordsearch puzzle game can improve students vocabulary mastery. This can be seen from the result such as:

1. There is an effect of Wordsearch puzzle game on English vocabulary mastery at seventh grade of SMP Swasta Mars Pematangsiantar.
2. The researcher gave a pre-test for both classes. In the experimental class, the average pre-test score was 55,6. While in the control class, it was 60. Subsequent to this, a post-test was conducted for both classes. In the experimental class, the average post-test score was 76, whereas in the control class, it was 69,4.
3. From the calculated result above, the total number of post-test mean deviation in experimental class is 20,4. Where the standard deviation is 5,746.
4. Where the total deviation of post-test mean in the control class is 9,4. Where standard deviation is 666.
5. The hypothesis test results show that t count (3.374) is higher than t table (1.677) at the 5% significance level. The alternative hypothesis (H_a) is accepted and the null hypothesis (H_0) is rejected.

Discussion

This research aimed to determine how the Wordsearch puzzle game affects English vocabulary mastery in grade seven at SMP Swasta Mars Pematangsiantar. In this research, the researcher used two classes. One class VII-A is an experimental class, and the other class VII-B is a control class (Rakimahwati et al., 2022). In the experimental class and control class, the researcher gave the same pre-test and post-test to both classes. However, in the experimental class, the researcher gave treatment by using the Wordsearch puzzle game after the pre-test given. The researcher gave a pre-test and post-test to see if there was an effect of using the Wordsearch puzzle game in the experimental class. In the control

class, the researcher gave no treatment, just learning by conventional textbook after the pre-test given. This research found that students who learned using Wordsearch puzzle games got better grades than those who learned using conventional textbooks. Puzzle games are challenging for students' creativity and memory due to the emergence of a deep motivation to solve the problem (Yimtae et al., 2018). However, they are still fun because they can be repeated. The challenge presented by these games encourages students to persist until they succeed. Puzzles that emphasize language learning and meaning are especially helpful for intermediate and advanced learners. The study found that students were more engaged in completing these puzzles, especially when given the chance to record their answers on a whiteboard (Siosan et al., 2021). This interactive approach enhances enjoyment and underscores the educational benefits of wordsearch puzzles. Using games in the classroom not only adds fun to learning but also creates an engaging environment for language acquisition.

CONCLUSION

Teaching English vocabulary through wordsearch puzzles at SMP Swasta Mars Pematangsiantar has proven to enhance students' vocabulary scores, particularly in the seventh-grade class VII-A. This highlights the effectiveness of games as a valuable tool in language classrooms, especially for junior high school students, aiding in the vocabulary learning process. The engaging nature of games fosters vocabulary acquisition, making them suitable evaluation tools for teachers to assess students' comprehension levels and reinforce their existing knowledge. Additionally, games provide students with opportunities to discover and explore new vocabulary independently, without direct teacher guidance.

This indicates that the alternative hypothesis, which posited a significant effect of using wordsearch puzzles in teaching English vocabulary to seventh-grade students at SMP Swasta Mars Pematangsiantar, was accepted. Conversely, the null hypothesis suggesting no significant effect of using wordsearch puzzles in teaching English vocabulary at the seventh grade students of SMP Swasta Mars Pematangsiantar was rejected. This implies that teaching English vocabulary using wordsearch puzzles did indeed impact the scores of seventh-grade students at SMP Swasta Mars Pematangsiantar. The evident difference between the pre-test and post-test results further supports this conclusion.

Based on the result of the research above, there are several important points as follows:

1. Using wordsearch puzzles improved English vocabulary mastery at SMP Swasta Mars Pematangsiantar.

2. This improvement was quite significant, as seen in the increased participation and enthusiasm of students during lessons.
3. However, effective classroom management is essential to prevent disruptions and maintain orderliness, especially when implementing this game.

REFERENCES

- Ahmadah, S. N. W., Setiawan, D., & Ardianti, S. D. (2020). Peningkatan Hasil Belajar Siswa Kelas Iv Melalui Model Think Pair Share Berbantuan Media Puzzle. *Edubasic Journal: Jurnal Pendidikan Dasar*, 2(1), 52–60. <https://doi.org/10.17509/Ebj.V2i1.27010>
- Astutik, L. S., Agustin, U. L., & Suwandayani, B. I. (2020). Pengaruh Media Puzzle Terhadap Hasil Belajar Aksara Jawa Di Sekolah Dasar. *Jurnal Pemikiran Dan Pengembangan Sekolah Dasar (Jp2sd)*, 8(1), 79–87. <http://eprints.umm.ac.id/id/eprint/83227>
- Che Dalim, C. S., Sunar, M. S., Dey, A., & Billinghamurst, M. (2020). Using Augmented Reality With Speech Input For Non-Native Children's Language Learning. *International Journal Of Human-Computer Studies*, 134, 44–64. <https://doi.org/10.1016/j.ijhcs.2019.10.002>
- Chika Pratama, B. (2019). Model Pembelajaran Two Stay Two Stray Berbantu Media Puzzle Terhadap Hasil Belajar Ditinjau Dari Gaya Belajar Siswa. *Jurnal Penelitian Dan Pengembangan Pendidikan*, 3(2), 84. <https://doi.org/10.23887/jppp.v3i2.17382>
- Cieza, E., & Lujan, D. (2018). Educational Mobile Application Of Augmented Reality Based On Markers To Improve The Learning Of Vowel Usage And Numbers For Children Of A Kindergarten In Trujillo. *Procedia Computer Science*, 130, 352–358. <https://doi.org/10.1016/j.procs.2018.04.051>
- Derakhshan, A., & Khatir, E. D. (2015). The Effects Of Using Games On English Vocabulary Learning. *Journal Of Applied Linguistics And Language Research*, 2(3), 39–47.
- Fordington, S., & Brown, T. H. (2020). An Evaluation Of The Hear Glue Ear Mobile Application For Children Aged 2–8 Years Old With Otitis Media With Effusion. *Digital Health*, 6, 205520762096616. <https://doi.org/10.1177/2055207620966163>
- Hidayati, E. W. (2018). Penggunaan Media Puzzle Konstruksi Terhadap Hasil Belajar Kognitif Siswa Sdn Kemangsen Li Krian. *Indonesian Journal Of Islamic Education Studies (Ijies)*, 1(1), 61–88. <https://doi.org/10.33367/ijies.v1i1.519>
- Iswara, P. D., Julia, J., Supriyadi, T., & Ali, E. Y. (2023). Developing Android-Based Learning Media To Enhance Early Reading Competence Of Elementary School Students. *Pegem Journal Of Education And Instruction*, 13(4), 43–55. <https://doi.org/10.47750/pegegog.13.04.06>

- Konstantakis, M., Lykiardopoulou, A., Lykiardopoulou, E., Tasiouli, G., & Heliades, G. (2022). An Exploratory Study Of Mobile-Based Scenarios For Foreign Language Teaching In Early Childhood. *Education Sciences*, *12*(5), 306. <https://doi.org/10.3390/Educsci12050306>
- Muswaroh, S. (2018). Penerapan Model Pembelajaran Kooperatif Tipe Think Pair Share Berbantuan Media Puzzle Untuk Meningkatkan Keaktifan Dan Hasil Belajar Siswa Pada Mata Pelajaran Ips Kelas V Sdn Soge Kandanghaur Indramayu. *Jurnal Review Pendidikan Dasar: Jurnal Kajian Pendidikan Dan Hasil Penelitian*, *4*(2), 674. <https://doi.org/10.26740/Jrpd.V4n2.P674-685>
- Nurwita, S. (2019). Pemanfaatan Media Puzzle Dalam Mengembangkan Motorik Halus Anak Di Paud Aiza Kabupaten Kepahiang. *Jurnal Pendidikan Tambusai*, *3*(2), 803–810. <https://doi.org/10.31004/Jptam.V2i4.285>
- Papadakis, S., Kalogiannakis, M., & Zaranis, N. (2018). Educational Apps From The Android Google Play For Greek Preschoolers: A Systematic Review. *Computers & Education*, *116*, 139–160. <https://doi.org/10.1016/J.Compedu.2017.09.007>
- Rakimahwati, R., Hanifa, N., & Aryani, N. (2022). Android Based Educational Game Development To Improve Early Childhood Reading Ability. *Al-Ishlah: Jurnal Pendidikan*, *14*(2), 1123–1134. <https://doi.org/10.35445/Alishlah.V14i2.1053>
- Setiana, F., Rahayu, T. S., & , W. (2019). Peningkatan Hasil Belajar Matematika Melalui Model Problem Based Learning Berbantuan Media Puzzle Siswa Kelas Iv Sd. *Jurnal Karya Pendidikan Matematika*, *6*(1), 8. <https://doi.org/10.26714/Jkpm.6.1.2019.8-14>
- Siosan, R. J. P., Lavilla, J. R., Dequilla, M., & De Castro, J. T. (2021). Android Interactive Word Game In Mother Tongue For Early Childhood Learners. *Indonesian Journal Of Electrical Engineering And Computer Science (Ijeecs)*, *22*(3), 1787–1795.
- Yimtae, K., Israsena, P., Thanawirattananit, P., Seesutas, S., Saibua, S., Kasemsiri, P., Noymai, A., & Soonrach, T. (2018). A Tablet-Based Mobile Hearing Screening System For Preschoolers: Design And Validation Study. *Jmir Mhealth And Uhealth*, *6*(10), E186. <https://doi.org/10.2196/Mhealth.9560>
- Zulfa, E., Nuroso, H., & Reffiane, F. (2020). Keefektifan Model Pembelajaran Terpadu Tipe Sequenced Berbantu Media Puzzle Terhadap Hasil Belajar Siswa. *Jurnal Penelitian Dan Pengembangan Pendidikan*, *4*(1), 18. <https://doi.org/10.23887/Jppp.V4i1.24938>