THE EFFECT OF USING MAZE CHASE LEARNING MEDIA ON STUDENTS' LEARNING OUTCOMES AT SDN PANARAGAN 1 BOGOR CITY

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ABSTRACT

This research is a type of Quasi-Experimental Research with Two Group Design. This study aimed to determine the effect of using Wordwall-based Maze Chase learning media on the learning outcomes of fourth-grade students at SDN Panaragan 1, Bogor City, West Java Province. As the experimental class is class IVA while the control class is class IVB. The method used in this research is quasi-experimental. The research was conducted in January 2022 on the Theme of My Hero's Struggle. The research results showed a significant effect on the average N-Gain score in the experimental class group of 72.56 with 94% completeness learning outcomes while the control class group had 59.56 with 83% complete learning outcomes. Besides that, the two-way hypothesis testing shows t count $4.437 > tt_{table}$ 1.994 with dk 70 and a significance level of 0.05 which means H0 is rejected and Ha is accepted. Based on the results of this research, it can be concluded that using wordwall-based Maze Chase learning media has an effect on the learning outcomes of fourth-grade students at SDN Panaragan 1 Bogor City.

Keywords: *maze chase, learning Media, elementary school*

1. INTRODUCTION

Schools and teachers will play an important role in Society 5.0. Learning activities through online media, especially during the pandemic, are being carried out using various supporting applications such as Zoom, Google Classroom, and Google Class Meeting. The use of this app support requires more insight on the part of educators.

The reality in this field is that many teachers still do not have sufficient qualifications in computer science. Online learning can be boring and confusing for students. Since the learning is focused face-to-face using Zoom, the materials presented are only in Word or PowerPoint format, the teacher's explanations are more verbal, and do not use interactive learning applications or media to increase students' thinking power and creativity. It is not well thought out. This problem was identified and based on the stories of several teachers during the initial interviews at SDN Panaragan 1, Bogor City.

Trying to overcome study boredom is an interactive educational game. Playing online games has become a favorite pastime for many people during the pandemic. Activities in which students participate in educational games facilitate learning. The purpose of educational games is only for fun but the activities in educational games increase students interest in learning. A game designed for learning yet offering play and fun.

Educational game applications that can be used include WordWall. According to (Haq et al., 2021), the Wordwall application is a digital game that can be used as an educational tool for making teaching aids. The wordwall app is a game that can be played offline while providing the printable feature. wordwall features a maze situation and is one such game that requires students to think critically while playing. The advantage of Maze Chase is that the game heads toward the correct answer while avoiding enemies (Khairunisa, 2021). A maze chase game based on wordwall is an educational game that existed before but was later developed by researchers by integrating educational materials and elements and turning this maze game into a fun and interactive learning tool for students. could be a solution. The game is an active activity. The following is the formulation of the problem: Is there any effect that the use of Word wall-based maze games can improve the learning outcomes of elementary school students?

2. LITERATURE REVIEW

2.1 Maze Chase

Play is an activity that is loved not only by children but also by adults. The most popular games are those that are distributed on computers and gadgets. However, gaming has a negative image for most elderly people. The only way out is to study because these games can lead to addictive behavior and a tendency for children not to do anything else. Many friends in the field with many participants teach the school and go to Playstation kiosks and cafes to play on the Internet. Digital technologies provide possibilities to help students learn. This statement is based on research that shows the positive impact of playing games. Fadhilaturrahmi et al. (2021) Children expend excessive physical and emotional energy.

Tias in Wahyuni & Usman (2020) states that a maze is a maze game that requires children to think actively and choose their way out of several available approaches.

Wahyuni & Usman (2020) Labyrinth is a prayer learning activity and children must have a line that they must traverse parts of the maze to complete it. The game of finding a way or a maze, Estatiati said, is Jan Berlik's Narrow Path and Berberok, and sometimes Dead End, or Jalan Kerual, through obstacles that can be seen through educational games.

Thinking includes the mental activity of problem critique, analysis of results, analysis, learning, and acquisition. The ability to research, analyze and analyze information is very important in making a decision. Critical thinkers seek to obtain information, analyze it, analyze it, draw conclusions, and make decisions based on facts. Characteristics of people who think critically are always visible and show a relationship to the issue or issues being discussed in other relevant experiences (Kurniawan, N. Sesono his

work (2016) The critical thinking process involves: 1. Understanding the situation 2. Understanding opinions based on to the evidence, data, or projections 3. Making arguments that outweigh the evidence 4. conclusions/decisions/solutions 5. accept conclusions/decisions/settlements.

2.3 Learning Outcomes

Learning outcomes are a change in students' behavior after carrying out teaching and learning activities from ignorance of a subject to knowledge and ability to apply it correctly. Because the learning process will produce effective learning outcomes related to changes in attitudes and behavior, cognitive related to knowledge and understanding, and psychomotor related to skills. This is in line with what was reported by Yunita et al. (2020:62), Saputri et al. (2020:39), and Sani (2019:38) which states that learning outcomes are changes in student behavior that are obtained from learning experiences through cognitive, emotional, and psychomotor stages after going through learning activities. This is supported by the view of Anitah (2014: 2.19) that learning outcomes are essentially changes in students' behavior that cover a broad area, not just focused on one aspect but in an integrated and holistic way.

Student learning success is one of the criteria for measuring the achievement of a level of learning objectives, some of which are designed to support students to be successful in learning in the classroom. According to Mulawati et al. (2019: 5) state that learning outcomes are an attempt to increase the knowledge students acquire after experiencing a learning process that is influenced by different determinants of learning outcomes to determine the level of success achieved by students.

Learning outcomes mainly cover three aspects: cognition, emotion, and psychomotor from these aspects are the level of achievement of learning outcomes for students, which can be seen in receiving learning. This view is reinforced by Sukmanasa, (2016:13) who states that learning outcomes are mutually sustainable through students' knowledge, attitudes, and skills.

The purpose assessment is a very important component of the learning process, with assessment it will be very useful to know the ability and achievement of students' learning outcomes in learning activities. Jihad and Haris (2013: 63) stated that systematic and continuous evaluation aims to assess learning outcomes in schools, to be responsible for community implementation, and to determine the quality of education in schools.

The learning success that students wish to achieve can be affected by several factors as mentioned by Sani, (2019: 38) which states that learning outcomes can be affected by internal factors, which are factors that are affected by students' abilities, and external factors, which are factors that are affected by the environment. Rules in the assessment are very important in determining the quality of education to achieve learning objectives, and efforts must be made of course and there must be planning in accordance with the principles of assessment of learning outcomes. The importance of understanding the principles of learning outcomes so that the results obtained are appropriate according to Arikunto (2018: 38) confirms that there is one important general principle in assessment, namely learning objectives, teaching, learning and assessment activities.

3. METHODS

The method used in this study is a quasi-experimental research method (pseudo-experiment) which was carried out at SDN Panaragan 1 Even Semester in the 2022-2023 Academic Year. The research design used in this study was a Quasi Experiment design (Randomized subjects Pretest-Posttest Control Group Design). The selected sampling technique, namely Simple Random Sampling because the collection of sample members from the population is done randomly regardless of the level in the population. The entire population of classes IV-A and IV-B will be used as samples in the study.

The data collection technique used in this research is using tests in the form of student learning outcomes. The data collection used in this test technique is in the form of an objective test in the form of multiple choice questions of 40 questions with four possible answers that will be tested to test the validity, reliability, level of difficulty, and discriminating power of the items. The test of the instrument will be carried out by students at a higher level, namely class V who have received previous learning on the sub-theme of preserving natural resources in Indonesia. Data collection techniques that will be used are pretest and posttest with data analysis testing calculating N-gain, Normality Test, Homogeneity Test, and Hypothesis Test.

4. RESULTS & DISCUSSION

The learning media is in the form of a maze chase game which is used during learning as below:

Figure 1. Games Maze chases the theme of my hero's struggle

Research results from the effect of using maze chase learning media on students' learning outcomes at SDN Panaragan 1 Bogor City. Based on the descriptive analysis, it was obtained data on students' scores using maze chase games and using conventional media. Table 1 data below:

Table 1. Recapitulation Mark

Recapitulation Mark		Class Group	
		Experiment Class	Control Class
Mark	Pretest	29	35
	Posttest	77	65

Lowest	N-Gain	25	25
Mark Highest	Pretest	87	90
	Posttest	100	100
	N-Gain	100	100
Average value	Pretest	61	65
	Posttest	92	86
	N-Gain	75	62

Data on learning outcomes from the two classes that received treatment showed that the experimental group of students who used maze chase games had a higher average score than the group of students who used conventional learning media.

Based on the results of the above research, are in line with the opinion of Hidayah (2022) which states that teaching games can improve learning outcomes.

Table 2. Recapitulation of Learning Outcomes

Class Group	N	average score (Mean)		average score N-Gain	Mastery Learning Outcomes
		Pre-test	Post-test		
Experiment Class	30	48.89	85.28	72.56	94%
Control Class	30	45.56	77.50	59.56	83%

Table 3.Test Results T test average value of N-Gain
Experiment class and control class

Class Group	N	dk	N-Gain	t_{hitung}	t_{tabel}
Experiment Class	30	58	72,56	4,437	1,994
Control Class	30		59,56		

5. CONCLUSION

The research results showed a significant effect on the average N-Gain score in the experimental class group of 72.56 with 94% completeness learning outcomes while the control class group had 59.56 with 83% complete learning outcomes. Besides that, the two-way hypothesis testing shows t count 4.437 > t_{table} 1.994 with dk 70 and a significance level of 0.05 which means H_0 is rejected and Ha is accepted. Based on the results of this research, it can be concluded that using Word wall-based Maze Chase learning media has an effect on the learning outcomes of fourth-grade students at SDN Panaragan 1 Bogor City.

6. ACKNOWLEDGMENTS

7. REFERENCES

Anitah, Sri. 2014. *Strategi Pembelajaran di SD*. Tanggerang: Universitas terbuka.

Arianto, A. S., Sulianto, J., & Azizah, M. (2019). Analisis Kemampuan Penalaran Matematis Siswa Kelas Iv Sdn Gayamsari 02 Di Kota Semarang. *Jurnal Sinektik*, *2*(2), 136. https://doi.org/10.33061/js.v2i2.3327

Arjunaita. (2020). Pendidikan di era revolusi indiustri 5.0. *Prosiding Seminar Nasional Pendidikan Program Paschasearjana Universitas PGRI Palembang*, *2*, 179–196.

Arsyad, M. N. (2019). Penerapan Model Pembelajaran Visualization Auditory Kinestetic (VAK) Dalam Meningkatkan Hasil Belajar Ips Siswa Smpn Moncok. *Maharsi*, *1*(02), 1–11. https://doi.org/10.33503/maharsi.v1i02.528

Diharjo, R. F., & Utomo, D. H. (2017). *Pentingnya Kemampuan Berfikir Kritis Siswa*. 445–449.

Fadhilaturrahmi, Ananda, R., & Yolanda, S. (2021). Jurnal basicedu. *Jurnal Basicedu*, *5*(3), 1683–1688.

Faiq, A. (2012). *Mathematics Adventure Games Berbasis Role Playing Game (RPG) Sebagai Media Pembelajaran Mata Pelajaran Matematika Kelas VI SD Negeri Jetis 1*.

Haq, F. Y. A., Syihanuddin, Abdurahman, M., & Supriadi, R. (2021). Wordwall : a Digital Game Application to Increase the Interest of Rabbaanii Junior High School's Students in Learning Arabic Vocabulary. *Proceeding International Conference on Arabic Language and Literature*, *19*(4), 1–11.

Hidayah, I. (2022). Implementasi Flipped Classroom Berbantuan Media Game Edukasi Berbasis Wordwall Pada Ptm Terbatas. *Madaris: Jurnal Guru Inovatif*, *1*(1), 1-13.

Jihad, Asep., dan Haris, Abdul. 2013. *Evaluasi Pembelajaran.* Yogyakarta: Multi pressindo.

Khairunisa, Y. (2021). Pemanfaatan Fitur Gamifikasi Daring Maze Chase–Wordwall Sebagai Media Pembelajaran Digital Mata Kuliah Statistika Dan Probabilitas. *Mediasi*, *2*(1), 41–47. https://doi.org/10.46961/MEDIASI.V2I1.254

Kurniawan, N. A., Saputra, R., Daulay, A. A., & Z. (2020). Implementasi Prinsip-Prinsip Merdeka Belajar Bagi Calon Konselor. *Prosiding Seminar Nasional Bimbingan Dan Konseling Universitas Negeri Malang, 69–72.*

Mulyana, Y. (2016). *Pengantar Pembelajaran Penjas*. STKIP Sebelas April Press.

Mulyati, S. (2019). Pengaruh Kemampuan Bernalar dan Penguasaan Kosakata terhadap Kemampuan Menulis Karangan Argumentasi. *Diskursus: Jurnal Pendidikan*

Bahasa Indonesia, *1*(01), 67. https://doi.org/10.30998/diskursus.v1i01.3514

Munadi, Y. (2020). *Media Pembelajaran*. Gaung Persada Press.

Musfiqon. (2012). *Pengembangan Media dan Sumber Pembelajaran*. Prestasi Pustaka Raya.

Nurani, D. (2021). *Menyiapkan Pendidik Profesional Di Era Society 5.0*. Direktorat Sekolah Dasar. Direktorat Jendral PAUD Dikdas Dan Dikmen. Kementrian Pendidikan, Kebudayaan, Riset Dan Teknologi. http://ditpsd.kemdikbud.go.id/artikel/detail/menyiapkan-pendidik-profesional-di-era-society-50

Putra, I. K. A. A. ., Suarsana, I. M., & Suharta, I. G. . (2020). Pengembangan Bahan Ajar Interaktif Materi Pecahan untuk Siswa SMPLB Tunarungu dengan Pendekatan Multi Representasi. *Jurnal Nasional Pendidikan Teknik Informatika : JANAPATI*, *9*(01), 69–84.

Saputri, M. A. (2020). Penerapan Model Pembelajaran Problem Based Learning Untuk Meningkatkan Kemampuan Berfikir Kritis Siswa Kelas V Sekolah Dasar. *Jurnal Pendidikan Dan Konseling (JPDK)*, *2*(1), 92–98. https://doi.org/10.31004/jpdk.v1i2.602

Sani, Ridwan Abdullah. 2019. *Strategi Belajar Mengajar*. Depok: PT Rajagrafindo Persada.

Saputri, Resti., Nurlela, Nintin., da Patras, Yuyun Elizabeth. 2020. *Pengaruh Berpikir Kritis Terhadap Hasil Belajar Matematika*. JPPGuseda / *Jurnal Pendidikan dan Pengajaran Guru Sekolah Dasar. Vol 3(1),h.3841.*

Siswono, T. Y. E. (2016). *Related papers Mengevaluasi Hasil Belajar Mat Emat Ika Siswa Dalam Berpikir Kreat IF*.

Sugiyono. (2016). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Alfabeta, CV.

Suherman, S. (2013). Proses Bernalar Siswa Dalam Mengerjakan Soal-Soal Operasi Bilangan Dengan Soal Matematika Realistik. *JIPM (Jurnal Ilmiah Pendidikan Matematika)*, *1*(2), 1–9. https://doi.org/10.25273/jipm.v1i2.468

Sukmanasa, Elly. 2016. *Hubungan Antara Disiplin Belajar Dengan hasil Belajar Pada Mata Pelajaran Ilmu Pengetahuan sosial*. *Jurnal Kreatif*. Vol (1),h.1124.

Sundayana, R. (2016). *Media dan Alat Peraga dalam Pembelajaran Matematika*. Alfabeta.

Wahyuni, S., & Usman, J. (2020). Penerapan Permainan Maze dalam Pembelajaran untuk Pengembangan Kognitif Anak di TK PKK Jalmak Desa Jalmak Kecamatan Pamekasan Kabupaten Pamekasan Jawa Timur. *Kiddo: Jurnal Pendidikan Islam Anak Usia Dini*, *1*(2), 160–173. https://doi.org/10.19105/kiddo.v1i2.3687

Mulyawati, Yuli., Sumardi, S., dan Elvira, S. 2019. *Pengaruh Disiplin Belajar Terhadap Hasil Belajar Ilmu Pengetahuan Sosial*. *Pedagonal : Jurnal Ilmiah Pendidikan.*3,(1),h.1-14.

Widianti, A. Y., & Sari, P. M. (2022). Pengembangan LKPD Berbasis Keterampilan Berpikir Kreatif Menggunakan Maze Chase-Wordwall Pada Pembelajaran Ipa Kelas IV SD. *Research and Development Journal of Education*, *8*(2), 617–626.