

The Effectiveness of Using Snakes and Ladders Media on Student Learning Outcomes in Social Studies for Eighth Grade at State Junior High School 26 Semarang

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DOI: <https://doi.org/10.52403/ijrr.20250313>

ABSTRACT

The right and innovative learning media key improving student's grades. Snakes and ladders as an example of learning media. The purpose of this study is to analyze the effectiveness of using snakes and ladders media on the learning outcomes of eighth-grade students in social studies at State Junior High School 26 Semarang. The method used is quantitative with a two-group pretest and posttest design. The population consists of eighth-grade students from SMP Negeri 26 Semarang. The sampling technique used was purposive sampling. The research results indicate that there is a significant difference between the learning outcomes of the experimental class and the control class. The Sig. (2-tailed) value of $0.002 < 0.05$ indicates that the learning outcomes of students using the snake and ladder game have higher scores compared to the control class.

Keywords: Effectiveness, Snakes and Ladders Media, Learning Outcomes, Social Sciences

INTRODUCTION

Social Studies is an integration of branches of social sciences, namely sociology, history, geography, anthropology, and

economics, which are connected to students' real-life experiences according to their developmental levels. Wicaksono and Purnomo (2021:41). The main goal of social studies education is to create good citizens. To achieve the ultimate goal need planning, implementation, and evaluation are required needed learning media. Learning media is used by teachers to convey learning materials so that learning objectives are achieved. Learning media is classified into three categories: visual media, audio media, and audiovisual media. Visual media is a two-dimensional medium that can be seen. One of the visual media is snakes and ladders, which requires at least two players using dice and pawns. Agustin et al., who cite Rizkiana and Sari (2024:9), advantages the snake ladder media are that they provide real learning experiences, students can learn while playing, and they train students to work in groups. The disadvantages of the snake and ladder media, such as causing boredom while waiting for turns to play and the lack of teacher supervision, will result in students only playing snake and ladder, neglecting the learning material. The preliminary study conducted by the researcher from August to October 2024 at State Junior High School 26 Semarang describes that Social Studies learning involves a lot of memorization and has a

very broad scope, causing students to not pay attention to and ignore the teacher. Learning at State Junior High School 26 Semarang uses media available in each classroom. Sometimes the media cannot be used due to damage to the media. The snake and ladder media played in groups. In the box, there are questions and "?" signs that contain challenges. The research results explain that snakes and ladders as a medium are more effective than not using a medium in the social studies subject, social interaction material for eighth-grade students at Negeri 26 Semarang Junior High School. The average score of the experimental class is 75.63, higher than the control class, which is 64.46. The T-test results show that Sig-(2-tailed) is 0.002 < 0.05, indicating a significant difference learning outcome between the experimental class and the control class. The average percentage of N-Gain Score, the experimental class has a percentage of 56.38%, categorized as quite effective. The results of the literature study by Akbar Maulana, Fitri Silvia Sofyan, and Tridays Replita (2024) titled "The Effectiveness Value of Using Snake and Ladder Learning Media on Student Learning Outcomes". State that the use snake and ladder learning media is very effective on the learning outcomes of eighth-grade students at SMP IT Al-Ikhwan Karawang, with an effectiveness of 67.2%.

LITERATURE REVIEW

Theoretical Description

A. Jerome Bruner's Cognitive Theory

Cognitive theory is a learning theory that focuses on the learning processes that occur within the human mind. Bruner's theory emphasizes that learning is an active process in which individuals actively construct their own knowledge and understanding, Guru Inovatif (2023). The figure of cognitive theory is Jerome Bruner, who stated that children must actively participate in classroom learning so that students also receive information about their lessons. Therefore, Jerome Bruner uses discovery

learning where students are actively involved in problem-solving. Students will learn independently by investigating, imagining, creating, discovering truths, and building experiences. According to Jerome Bruner, there are three levels of a child's progress: enactive, iconic, and symbolic. Wahab (2016). Here are the stages of learning according to Jerome Bruner: (1) The enactive stage focuses on knowledge taught by the teacher where students learn to interact directly with real objects or events in their surroundings; (2) The iconic stage is a stage of learning where students move from real objects to visual images, pictures, and diagrams to acquire the same knowledge as in the enactive stage. Students do not always focus on real objects, but use images as tools to support learning. Widiyaningrum (2011:68); (3) The learning stage uses abstract symbols to present ideas and concepts. Symbols in the form of numbers, letters, and signs that have meaning.

LITERATURE REVIEW

A. The Nature of Learning Media

The Latin word for media is *medius*, which means conveying a message. Djamarah (1997:2) states that media are tools used to convey messages in order to achieve learning objectives. This opinion is supported by Purnamawati and Eldarni (2001:4) that media can transmit messages from the sender to the receiver, consequently impacting students such as the emergence of stimuli, attention, and interest in learning. The benefits of media in learning are conveyed by Kemp and Dayton in S Karo and Rohani (2018:94), namely: (1) Learning becomes more interesting; (2) Saves time and energy; and (3) Improves student learning outcomes. Daryanto (2016:8) explains the functions of media in learning, namely: 1) Being able to see living creatures from the past that cannot be seen directly in the present; 2) Reaching a large audience; 3) Being able to see slow processes become fast processes.

B. Snakes and Ladders

A traditional game that has been modified into an effective learning tool. This game is square-shaped and contains boxes numbered 1-100. The boxes have 10 rows and 10 columns. Inside the boxes, there are images of snakes and ladders that connect the boxes, Husna, as quoted by Permatasari (2021:5). Ratnaningsih and Mulyanti in Aturrohman (2023:18) opinion benefits using snakes and ladders: (1) Creating enjoyable and interactive learning; (2) Encouraging students to engage in independent or group learning activities; (3) The cognitive abilities acquired by children after the learning process will be stable and structured, thus becoming memories that will not fade. The advantage of snakes and ladders is that students play while learning, so they do not feel bored and the learning becomes more enjoyable, while the disadvantage is that it can make children feel bored waiting for their turn to play.

C. Social Studies in Junior High School

Social Science is a compulsory subject listed in Law Number 20 of 2003. Article 37 contains the mandatory curriculum for basic and secondary education in Social Sciences. Supriya (2001:44) believes that in Indonesia, social studies is an integrated subject that starts from geography, social studies, anthropology, economics, history, and sociology. Social Studies has a broad scope. Social Science studies aspects related to society, starting from the interaction between humans and the environment. Through social studies, students are taught to appreciate differences, actively participate in society, and develop critical thinking skills Purnomo, Arif dan Mulianingsih, Ferani (2021). Social studies also equip students with the social skills necessary to live in a diverse society

D. Learning Outcomes

Learning outcomes are indicators of the learning process that will be achieved. This statement is supported by Anni, as quoted from Ramadhani (2021:26), that student activities in learning will yield satisfactory learning outcomes. Learning outcomes are

used to assess students' abilities, so learning outcomes are evaluated. Purnomo, Arif., dkk. (2024) teachers can improve learning outcomes with a learning environment that encourages students to be active and collaborate with one another.

MATERIALS & METHODS

This research is quantitative research. Sugiyono, as quoted by Rhamadani (2021:35), quantitative research is a research method that relates to calculations and numbers. Variables consist of two types, namely independent variables (free) and dependent variables (bound). A quasi-experiment takes the form of a cause-and-effect relationship because a treatment is given, allowing the changes resulting from that treatment to be tested. Sugiyono (2018) the experimental class, namely class VIII H, was given the snakes and ladders treatment, while the control class, namely class VIII G, was not given the snakes and ladders treatment. The population consists of all students' class VIII totaling 266 student. The research sample was Class VIII G and Class VIII H amount 68 students. The sampling technique is purposive sampling. The data collection used pretest and posttest, documents and documentation. Instrument a multiple-choice test. Two types of variables namely the independent variable, namely the independent variable, namely snakes and ladders media and the dependent variable, namely student learning outcomes in social studies subjects. Researchers used SPSS version 20.

RESULT AND DISCUSSION

The research was conducted at at State Junior High School 26 Semarang, Banyumanik District, Semarang City 21 November 2024 to 28 November 2024. Researchers' preliminary study in August-October 2024 found that students during learning ignoring the teacher and tended to play with their classmates. Apart from that, students often come in and out of the classroom while learning is taking place. There are learning media, sometimes they

cannot be used due to damage to the media, so learning aids are needed to improve social studies learning outcomes at State Junior High School 26 Semarang, namely snake and ladder media. The selection of these two classes was the result of analysis of daily social studies test scores for classes VIII A-H. Learning in class VIII H uses a module guide on social interaction material. The methods used are lectures, group discussions, question and answer sessions, and games. Meanwhile, the learning model used is the Teams Game Tournament (TGT). The first meeting will be held on Thursday, November 21, 2024. Before the treatment, a pretest was conducted with the aim of measuring the students' initial abilities before the treatment was carried out. The number of pretest questions is 15 multiple-choice questions with a completion time of 40 minutes. After finishing, the researcher presented the material using video and PowerPoint media. Then introduced the snake and ladder media. The second meeting on Monday, November 25, 2024, the researcher reviewed the material that the students had studied at home. The researcher explained the rules of the game and immediately applied them in the group. The group that receives the question and answers it correctly will be awarded 1 point. If they cannot answer, it will become a contested question worth 2 points. The group that cannot answer receives 0 points. The third meeting on Thursday, November 28, 2024, the researchers reviewed the learning materials. After that, using the snakes and ladders media. Then, complete 15 multiple-choice posttest questions in 40 minutes. The goal is to see the students' learning outcomes after being treatment.

Learning in the control class was conducted in class VIII G using the social interaction material module guide. The methods used are lectures, group discussions, question and answer sessions, and presentations. Meanwhile, the learning model used cooperative, which is a learning approach that group activities. The first meeting will be held on Thursday, November 21, 2024. Before the learning, a pretest is conducted with the aim of measuring the students' initial abilities. The number of pretest questions is 15 multiple-choice with a completion time of 40 minutes. After that, the delivery of social interaction material is followed by dividing into small groups consisting of 4-5 students. Individual students will complete the assigned tasks even within a single group. After completing the individual task, students will discuss in groups to help each other find answers and exchange opinions. After that, proceed to present the results in front. The second meeting, Tuesday, November 26, 2024, is the same as the first meeting, where the material is presented, followed by individual questions, group discussions, and presentations. The third meeting on Thursday, November 28, 2024, the researchers reviewed the learning materials. After that, continue the learning by working on individual assignments, group discussions, and presentation. The meeting concluded with answering 15 posttest questions in multiple-choice format, with a 40-minute time limit, aimed at assessing students' learning outcomes without using the snake and ladder media. The learning outcomes determined from the pretest dan posttest scores. The achivement criterion is if the score is > 75.

Table 1 Category Score

Class	Category	Complete	Do not Complete	Average	Number of Students	Percentage (%)
Experiment	Pretest	1	29	55,90	30	3,33%
Control		1	29		30	3,33%
Experiment	Posttest	21	9	75,63	30	70%
Control		10	20		30	30%

Source: (2024 Research Data, processed)

Posttest scores the experimental class is quite effective, with 21 out of 30 students achieving an average score of 75.63. This shows that 75.6% of the students scored > 75. Before treatment, the average pretest was 3.33% with 1 student passing out of a total of 30 students. This proves that there is a significant improvement in test scores after the treatment. In line with Nana Sudjana's (2006) opinion that learning outcomes are obtained after instruction, thereby enhancing the development of intellectual, emotional, and motor aspects compared to students before learning. The students' pretest results of 3.33% fall into the very low category because the students have not yet received the learning material on social interaction. Meanwhile, the students' learning outcomes on the posttest reached 70% complete, falling into the high category, because the students had been given social interaction learning materials and had been tread according. The result of the independent sample t-test shows that the different in the average pretest and posttest score is Sig. (2-tailed) = 0.002, with a sig value < 0.05, indicating a difference in learning outcomes between the control class and the experimental class. The improvement in the learning outcomes of the experimental class students indicates that the social studies learning on the topic of social interaction using the snakes and ladders media significantly affects the students' learning outcomes. This is in accordance with Sumaatmadja's opinion in Asmiyanti (2021), which states that media in learning plays an important role in differences in learning outcomes. From the calculation results, the pretest scores in the control class were classified as incomplete, with 1 out of 30 students having an average score of 54.47, indicating that 54.4% of the students scored < 75. Most of the students, around 26.7%, scored 53. Additionally, there are 29 students who have not yet reached determined Minimum Passing Standard (KKM), which is 75. These results indicate the need for efforts to improve students' abilities in order to achieve

satisfactory learning outcomes. Meanwhile, the calculation of posttest scores for the control class shows that the number of students classified in the complete category is 10 out of a total of 20 students, with an average score of 64.46, indicating that 64.4% of students scored < 75. Previous research by Rizkiana and Sari (2024) the learning resources provided by teachers result in unsatisfactory student grades. The students' learning outcomes in the pretest were 3,33% and fell into the very low category. Meanwhile, the student's learning outcomes in the posttest reached 30% and fell into the low category. The effectiveness of learning is a benchmark for the internal interaction process of learning, viewed from the time of learning, responses, and concept mastery. Thus, the effectiveness of learning becomes a measure of success in education, and effectiveness can occur if learning outcomes improve. Ghifari (2018:1). From the calculation the T-test. results, it shows that Sig (2-tailed) is $0.002 < 0.05$, indicating a significant difference affecting the Social Studies learning outcomes between the experimental class and the control class. Analysis of the N-Gain Score Test. The N-Gain value of the experimental class 56.3858 or 56%, categorized as quite effective. The minimum N-Gain value is 33.22% and the maximum is 90.78%. Thus, the snake and ladder media is quite effective improving the learning outcomes the topic of social interaction. The effectiveness of the snake and ladder media improves learning outcomes because the media combines numbers, words, or images, thereby stimulating students' visual senses and memory. In addition, the snake and ladder media can attract students' attention and interest in learning while playing. In line with the research conducted by Feri Rizkiana and Elok Fariha Sari (2024), the snake and ladder media is effective improving the learning outcomes in social studies.

CONCLUSION

N-Gain scores, the experimental class achieved 56.38%, which falls into the fairly effective category. Meanwhile, the N-Gain score of the control class falls into the less effective category with a percentage of 40.34%. This snake and ladder media is quite effective, as evidenced by the posttest scores of the experimental class being superior compared to the posttest scores of the control class. Furthermore, the t-test shows that the significance value is Sig. (2-tailed) of 0.002, which is smaller than 0.05, indicating a difference in learning outcomes between the control class and the experimental class.

Declaration by Authors

Acknowledgement: None

Source of Funding: None

Conflict of Interest: The authors declare no conflict of interest

REFERENCES

1. Aturrohmah, Uliyanti. (2023). *Pengaruh Media Pembelajaran Ular Tangga Terhadap Hasil Belajar Matematika Siswa Kelas III MI Ma'arif Bauh Gunung Sari*. Skripsi. Fakultas Tarbiyah dan Ilmu Keguruan Institut Agama Islam Negeri (IAIN) Metro: Lampung. <https://repository.metrouniv.ac.id/id/eprint/9238>
2. Asmiyanti. (2021). *Pengaruh Media Ular Tangga Terhadap Hasil Belajar IPS Siswa Kelas IV SDN 015 Kota Garo*. Skripsi. Fakultas Ilmu Pendidikan, Universitas Pahlawan Tuanku Tambusai Bangkang: Riau. <https://repository.universitaspahlawan.ac.id/567/>
3. Daryanto. (2016). *Media Pembelajaran*. Yogyakarta: Gava Media.
4. Djamarah, Syaiful. 1997. *Strategi Belajar Mengajar*. (Jakarta: PT Rineka Cipta).
5. Ghifari, AA. (2018). *Hubungan Pengelolaan Kelas Dengan Efektivitas Pembelajaran Ekonomi Di Sekolah Menengah Atas Negeri 14 Pekan Baru*. Skripsi. Fakultas Tarbiyah dan Keguruan. Universitas Islam Negeri Sultan Syarif Kasim Riau: Riau. https://repository.uin-suska.ac.id/12780/1/1.%20COVER_2018352PIPW-E.pdf.
6. Inovatif, Guru. (2023). *Teori Kognitif Dalam Pembelajaran: Mengoptimalkan Potensi Belajar Siswa*, <https://guruinovatif.id/artikel/teori-kognitif-dalam-pembelajaran-mengoptimalkan-potensi-belajar-anak>, diakses tanggal 25 Desember 2024.
7. Permatasari, AB. (2021). *Penerapan Media Ular Tangga dalam Peningkatan Keaktifan Belajar Peserta Didik pada Mata Pelajaran Matematika Kelas V di SD Miftahuss'adah Gondosari Gebog Kudus*. Skripsi. Institut Agama Islam Negeri Kudus: Kudus. <http://repository.iainkudus.ac.id/6122/>
8. Purnamawati dan Eldarni. (2001). *Pengertian Media*, <https://media-grafika.com/pengertian-media-pembelajaran>. Diakses tanggal 25 Desember 2024.
9. Purnomo, Arif dan Mulianingsih, Ferani. (2021). *Development of Higher Order Thinking Skill in Junior High School: Studies on Social Studies Teachers in Pekalongan City*. *Advances in Social Science, Education and Humanities Research*, 578, 26-30.
10. Purnomo Arif., Kurniawan, Febri G., Romadani, Romadani., Karimi, Amir., dan Fadhila, Qonita. (2024). *Epistemic Cognition in the Formation of Students' Memories and Narrative Competence*. *Indonesian Journal of History Education*, 9(1), 101-118.
11. Ramadhani. (2021). *Peningkatan Hasil Belajar IPS Menggunakan Model Make A Match Pada Siswa Sekolah Dasar*. *Jurnal Ilmu Pendidikan Universitas Achmad Yani Banjarmasin*, 3(4), 2237-2244.
12. Rizkiana, Feri dan Sari, Fariha Elok. (2024). *Snakes and Ladders Media to Improve Social Studies Learning Outcomes of Fifth Grande Elementary School Students*. *Journal of Education Technology*, 8(2), 297-305.
13. S, Karo-Karo dan Rohani. (2018). *Manfaat Media Dalam Pembelajaran*. *Jurnal UINSU*, 7(1), 91-96.
14. Sugiyono. (2018). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
15. Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.

16. Supriya. (2022). Pendidikan IPS. Bandung: PT Remaja Rosdakarya. Bilangan Bulat di Sekolah Dasar (SD/MI). *Jurnal Cendekia*, 9(1), 65-80.
17. Wahab, Rohmalia. (2016). Psikologi Belajar. Jakarta: Rajawali Pers.
18. Wicaksono, NP dan Purnomo, Arif. (2021). Analisis Model-Model Pembelajaran Yang Digunakan Oleh Guru IPS di SMP Negeri SeKecamatan Sukorejo Kabupaten Kendal. *Jurnal Sosiolum*, 3(1), 40-49.
19. Widyaningrum, R. (2011). Tahapan J. Bruner Dalam Pembelajaran Matematika Pada Penjumlahan dan Pengurangan

How to cite this article: Diah Awalianti, Arif Purnomo, Ferani Mulianingsih, Sanita Carolina Sasea. The effectiveness of using snakes and ladders media on student learning outcomes in social studies for eighth grade at state junior high school 26 Semarang. *International Journal of Research and Review*. 2025; 12(3): 88-94. DOI: <https://doi.org/10.52403/ijrr.20250313>
