

The Effectiveness of Using Interactive Learning Media in Enhancing Learning Motivation and Science Literacy of 6th Grade Elementary School Student on the Topic of World Continents

Efi Tasfiyatul Millah ^{1*}, Dede Trie Kurniawan ¹, Yunus Abidin ¹

¹ Universitas Pendidikan Indonesia, Indonesia

✉ efitasfiyatulmillah24@upi.edu*

ABSTRACT

Students are still not fully involved in the learning process, which causes their ability to develop literacy skills, especially scientific literacy, to be far from expectations. Students are overloaded with concepts from limited learning sources, which still restrains them from exploring their inner potentials. The use of interactive learning media has become one of the efforts to support learning in line with the nature of the students' era. This research aims for a deeper understanding of the effectiveness of using Interactive Learning Media in efforts to enhance students' learning motivation and science literacy. The researcher employs qualitative methods and a descriptive approach to describe and analyze the effectiveness of using Interactive Learning Media. Data collection techniques include interviews, observations, and documentation. This research was conducted on 6th-grade students at SDN Tenjolaya 1. The research results show that the use of interactive learning media increases student enthusiasm in the learning process by observing an increase in student engagement and participation in learning. In addition, the iterative science skills, such as the ability to observe and analyze data, show significant development. Students also provided positive feedback regarding the use of interactive learning media, which made the conducted lessons more enjoyable and easier to understand. Based on the research results, it can be concluded that the use of interactive learning media is effective in improving students' learning motivation and science literacy.

Keywords: Interactive Learning Media, Motivation, Scientific Literacy

ARTICLE INFO

Article history:

Received

March 28, 2025

Revised

July 27, 2025

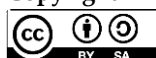
Accepted

August 17, 2025

Published by Website

E-ISSN

Copyright



Institut Agama Islam Ma'arif NU (IAIMNU) Metro Lampung
<https://journal.iaimnumetrolampung.ac.id/index.php/ji/index>
2548-7892

This is an open access article under the CC BY SA license

<https://creativecommons.org/licenses/by-sa/4.0/>

@ 2025 by the author (s)

INTRODUCTION

In order to prepare for the industrial revolution of the 21st century with all the developments and advances of the times, it requires humans to have more skills than before. Self-actualization of society in the era of globalization is characterized by the use of various technological devices side by side with everyday life. There are four main competencies that must be possessed by 21st century humans, namely critical thinking and problem solving skills, communication and collaboration skills, creativity and innovation skills, information and communication technology literacy, contextual skills, and information and media literacy skills (Rachmadtullah, 2020).

21st century skills can be applied through learning that develops not only focuses on results but must uphold the process that is passed. If previously the teacher was considered the main actor in learning, now it must begin to change the learning paradigm that is more student-centered. The teacher's dominating role inhibits students from actively participating in learning, which makes it difficult to develop 21st century skills (Mohamad et al., 2023). Students' active involvement in learning is a real challenge for teachers. Students often lack understanding of

the purpose of the learning process which causes students' disinterest in being actively involved in the process. They often look bored and easily give up in facing difficulties in learning, causing apathy during learning. Providing challenges in learning that are not interesting makes the enthusiasm for learning low.

The skills needed by 21st century teachers are the ability to develop learning content by adjusting to the times. Teachers must be able to present learning media in an up-to-date, creative, innovative manner by utilizing technology to improve learning outcomes and motivation (Syawaluddin et al., 2021). The development of a technology-supported learning environment is considered effective for increasing students' motivation to learn and active involvement in learning (Chuang, 2014) (Carstens et al., 2021). The integration of 21st century skills into the education curriculum is a strategic step to ensure that students are ready to face the challenges of modern times (Island et al., 2021). The current education curriculum demands the integration of technology and more innovative learning approaches. One of the efforts to integrate technology in learning is by using technology-based learning media. Conventional learning media are often unable to attract student interest and limit student interaction and active participation in the learning process. This results in low student motivation, especially on complex topics. Technology-based interactive learning media facilitates direct interaction between students and learning materials. Students are given the opportunity to explore information from the first source so that students become more proactive in their learning process. The ability of teachers to develop interactive media in learning is believed to increase student engagement in learning and also have a positive effect on understanding material in complex concepts (Hapsari & Fahmi, 2021).

IPAS learning that integrates natural and social science concepts has an urgency for students in providing a holistic understanding in an effort to understand their existence as individual and social beings. However, most primary school students in Indonesia do not understand the concept of IPAS and are unable to apply it in real life, especially when it comes to complex materials such as the continents of the world. The lack of ability to conduct a series of scientific investigations to manage available information is also a challenge in learning IPAS, which leads to students' inability to communicate their scientific ideas and findings effectively. Based on observations that were carried out in October 2024 at SDN Tenjolaya 1, several findings were obtained in IPAS learning. One of the findings is the low motivation and involvement of students in learning. This can be seen when students have difficulty in maintaining attention and interest when learning about geography topics, such as the continents of the world. Students' limitations in understanding complex geography concepts, such as location, characteristics, and differences between continents. Students find it difficult to communicate objects from observations thoroughly, so students are unable to give opinions about a situation based on what they observe. The learning that takes place also appears to be more teacher-centered, because the teacher's activities provide more material, so students are passive in the learning process. The passivity of students in learning is certainly in line with the low development of 21st century skills that are needed to face global challenges.

Previous studies have shown that interactive digital-based learning media have great potential in increasing student motivation and learning outcomes. For example, research by (Rahman et al., 2024) states that interactive multimedia-assisted learning successfully stimulates student motivation. Similar findings were also reported by (Ali et al., 2025), who stated that interactive media plays an important role in creating an effective learning environment to increase students' interest and motivation. Additionally, the findings presented by (Daryanes et al., 2023) concluded that interactive learning media developed can motivate students to improve their problem-solving skills.

In terms of science literacy, a study conducted by (Lina, 2024) concluded that the use of digital media in learning can help students develop science literacy in a more concrete way. Additionally, (Azhari, 2024) states that interactive science learning media significantly helps improve elementary school students' science literacy, as evidenced by improvements in text comprehension, reading skills, and reading interest.

Although there are quite a number of studies discussing the use of interactive media in general, studies that specifically examine the relationship between interactive learning media and improvements in science literacy and learning motivation among sixth-grade elementary school students are still relatively rare. Most studies focus on only one aspect either learning motivation or science literacy separately without examining the interconnection between the two within a single intervention framework. Additionally, the majority of studies have been conducted at the junior high school or high school levels, leaving the learning context of elementary school students—particularly sixth graders, who are transitioning to the next level under-researched.

In line with the above description, although there are many studies discussing interactive learning media, there is still no research examining the effectiveness of interactive media simultaneously on the learning motivation and science literacy of sixth-grade elementary school students, specifically on the subject of continents in the world. Therefore, this study was conducted to empirically examine the effectiveness of using interactive learning media in enhancing learning motivation and science literacy among sixth-grade elementary school students, as well as to explore the relationship between the two within an integrated research design.

Based on the problems that have been described, one alternative form that can be used is to use technology-based interactive learning media. Interactive learning media facilitates interaction between students and learning materials in various forms in the form of videos, animations, simulations, educational games, and other digital applications (Faturrokhman, 2024). Digital-based Interactive learning media reflects the development of technology in learning, which can assist teachers in delivering learning concepts and skills in science literacy. One form of learning media that can be developed is interactive learning media to increase learning motivation and science literacy of grade 6 elementary school students on the material of continents in the world.

METHOD

This research uses descriptive qualitative methods. Researchers tried to describe the research findings by providing a real picture of the data obtained without any manipulation. Researchers collected data directly from participants who were relevant to the research focus.

The research was conducted in October 2024. The place of implementation was at SDN Tenjolaya 1, Cicalengka District, Bandung Regency. The subjects of this study were 6th grade students totaling 32 people, consisting of 15 male students and 17 female students. The object of research focuses on learning IPAS material on the continents of the world using interactive learning media.

Data collection was done by interview, observation, and documentation. Interviews were conducted directly with students to gather information regarding the experience in using interactive learning media and how it affects their understanding of the material of continents in the world. Interviews with students were conducted to explore their experiences, perceptions, and interests in the media used. Interviews with teachers explored media usage strategies, perceptions of effectiveness, and challenges faced. Observation was used when observing the learning process implemented to see how students interact with the interactive learning media and their level of engagement during the learning process as well as observing the classroom dynamics that occur, such as interactions between students and teachers as well as students' responses to the material being taught. Documentation was conducted to find out the number of students, the state of the class, the state of the school environment that can support the research process.

RESULT AND DISCUSSION

Interactive Learning Media

Learning media plays an important role in creating an effective learning environment. In learning, the media functions as a tool to achieve the learning objectives that have been set. In line with the challenges of scientific and technological progress, the role of the learning process must also be directed towards the utilization of technology. Interactive learning media is an

attempt to integrate technology in the learning process. Interactive learning media is a tool designed to increase student involvement in the learning process in a more active and collaborative way (Daryanes et al., 2023). The use of interactive learning media in the learning process does not mean eliminating the interaction between teachers and students, but with the use of interactive learning media, the interaction that is built is more empowering for students (Dewi, 2023). Interactive learning media is a tool used during the learning process that allows active interaction between students and learning materials. Interactive learning media is designed to increase student engagement, facilitate concept understanding, and encourage active student participation in the learning process (Aulia et al., 2024). Interactive learning media commonly used are interactive videos, computer-based learning applications, e-learning modules, and other digital tools that allow students to interact with content directly.

The utilization of interactive learning media certainly requires the availability of technological support resources, both for teachers and for students. The technological devices needed in applying this interactive learning media are android-based mobile devices and internet networks. In addition, the basic skills of teachers and students in using the available technological devices are things that need to be considered (Oktarika & Dharmayanti, 2015). In order to present lessons that integrate interactive learning media, teachers must have an understanding and ability to use software and applications that support learning. Learning strategies designed by teachers must be able to involve the use of interactive media, such as educational games, collaborative projects, and multimedia presentations (Ahnaf Istiqlal Berutu et al., 2024).

Based on observations that have been carried out at SDN Tenjolaya 1, 98% of students already have adequate devices for the use of this interactive learning media, namely android-based cellphones that can be used in classroom learning, while 2% of students who do not have supporting devices can use cellphone devices and laptops owned by teachers. A fairly stable internet connection, both from students' personal quota and using the school's wifi network. Technically, these two things become the basis for the use of interactive learning media that will be implemented. Students seem to be able to operate the learning support devices well. Teachers also seem to be very good at using the technological devices used. The teacher managed to package learning with a collaborative strategy, allowing students to interact with each other, both directly and when using the applications available in the interactive learning media. The teacher also readily provides assistance to students who are constrained in the use of interactive learning media during the learning process.

When learning using interactive learning media about the continents of the world, it provides opportunities for students to interact directly with the subject matter, thus creating a more interesting and enjoyable learning experience. Students seem to be actively involved in the learning process, because the activities presented in the interactive learning media are able to encourage them to carry out various collaborative activities.

Description of World Continents Interactive Learning Media

The design of interactive learning media for the continents of the world utilizes the Genially platform which allows interaction between users and learning materials. Research that has been carried out previously related to student learning outcomes when using Interactive Learning Media shows that Genially-based interactive learning media is proven to be very feasible to use in learning Indonesian language fairy tale material (Afifah et al., 2022). The learning materials presented are relevant to the curriculum applied at SDN Tenjolaya 1, namely the independent curriculum, which is found in the IPAS subject Chapter 3 Pelesir keliling dunia. The content presented in this interactive learning media of the continents of the world is in the form of audio, visual, infographics, quizzes, and educational games. The choice of this platform is inseparable from the ease of accessing the media without having to install it to the user's device first. The display on the interactive learning media of the continents of the world is named Benia which is an acronym for the continents of the world. This Benia interactive learning media is wrapped with the concept of a challenge to adventure to explore every continent in the world. The following is an explanation of the content of the interactive learning media of the continents of the world.



Figure 1. Picture of Home Page

On the home page, there are graphics in the form of themes from the learning media that are packaged like an ongoing adventure carried out by students, this aims to increase user interest in being actively involved in learning and provide access to users to start their learning experience.

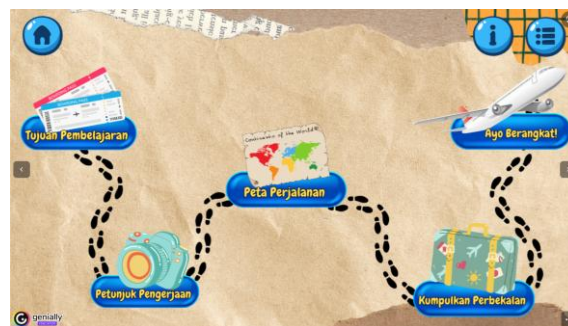


Figure 2. Picture of Main Page

The main page provides an overview of the main menus that students will learn by exploring each of the available challenges in sequence. On this display consists of a menu of learning objectives, work instructions, travel maps, collect supplies, and let's go.



Figure 3. Picture of Learning Object Menu

On the learning objectives menu, there is an animated presentation of a teacher in the form of audio and visual that conveys in detail the learning objectives in the learning activities to be carried out. The submission of these learning objectives aims to make students know a clear direction in the learning process that will be carried out.



Figure 4. Picture of Work Instruction menu

In the work instructions menu, it is equipped with animations that contain audio and visuals regarding work steps in the use of interactive learning media. Students as users are given directions to follow the direction of the footprints sequentially until completion.



Figure 5. Picture of Travel Map Menu

On this travel map there are six sub menus according to the number of continents in the world. Each submenu is equipped with a clear explanation of the geographical location, continent designations, regional divisions, economic conditions, country icons, characteristics and characteristics of the people on each continent. The presentation is delivered in the form of an interactive video that displays the explanation accompanied by graphics that match the explanation of each continent. The video is packaged in the edpuzzle platform, which allows students to listen and listen actively in the process of gathering information about the continents of the world.



Figure 6. Picture of Collect Supplies Menu

The collect supplies menu includes an educational game to pair the location of each continent on a blind map. This game uses the wordwall platform to improve students' understanding of the geographical location of the continents in the world.



Figure 7. Picture of Let's Go Menu

On the let's go menu there is an interactive quiz containing 15 questions to test the extent to which students can gather information from the learning activities that have been carried out. Questions are in the form of 10 multiple choice questions and 5 true or false statements.



Figure 8. Picture of Closing View

In the closing view, there is a motivational word that aims to appreciate the success of students after completing learning by using interactive learning media.

Based on the appearance of interactive learning media used to learn about the continents of the world at SDN Tenjolaya 1, it already contains important elements in interactive learning media. The title of the learning media that is made interesting with the acronym Benia becomes easier for students to remember and pronounce. The availability of interactive navigation buttons that can access various parts of interactive learning media, such as learning materials, quizzes, evaluations, and additional information. The interactivity of the learning media is also very good, this is characterized by the availability of various interactive elements such as animations or introductory videos to increase student engagement on the home page before they start learning. The visual and audio design presented in this interactive learning media is also attractively packaged, both in the use of colors, images, and graphic elements that are very suitable for students' daily lives. The learning media used also provides flexibility in accessing materials anytime and anywhere. And most importantly, the interactive learning media used presents learning in accordance with the objectives in the curriculum through a more enjoyable and meaningful learning method.

Student Learning Motivation

Learning motivation is an encouragement within students to carry out learning activities that can provide direction to the learning process to achieve the learning goals that have been set. Student motivation in learning is very important because it affects how active and effective students are in the learning process (Aritonatonang, 2018). Learning motivation is a factor that influences students' effort and perseverance in learning. Learning motivation has an important role in determining the intensity of students' learning efforts, which in turn affects their learning outcomes (Andriani & Rasto, 2019).

The use of interactive learning media at SDN Tenjolaya 1 can create a more pleasant learning atmosphere, because students do not feel pressure in the learning process so they appear more comfortable and actively participate in the learning process. Students are also enthusiastic to learn the material about the continents of the world because they feel interested in the learning media presented. students interact directly with the learning content so that their engagement and understanding of the subject matter can increase. Students show a high level of engagement when using interactive learning media marked by students' activeness in asking questions and discussing the information presented. in addition, students are active in collaborating to answer questions given after gathering information from the interactive learning media that has been presented. students feel that the visualizations displayed in the interactive learning media can help them understand the geographical concepts of the continents of the world better, this is indicated by students' ability to explain the characteristics of each continent more clearly and in detail after learning using interactive learning media. The use of interactive learning media increases students' interest in learning by presenting the material in an interesting and fun way, so that students become more interested in learning and exploring more about the topics taught. Students also feel they are given immediate feedback when working on educational games and quizzes, where they can re-evaluate their shortcomings in the learning process and then immediately correct them which plays a direct role in increasing their confidence and motivation to learn.

Science Literacy

Science literacy is an essential skill for individuals to face the challenges of the modern world. In learning, science literacy refers to students' ability to use their knowledge and understanding of science concepts and processes to identify, acquire new knowledge, explain scientific phenomena and make inferences about how human activities change nature. PISA in (Vieira & Tenreiro-Vieira, 2016) Science literacy is able to assist individuals in discovering scientific questions, acquiring new knowledge, explaining scientific phenomena and making evidence-based inferences about scientific issues, understanding how science and technology shape the material, intellectual, and cultural environment, and encouraging people to engage in scientific issues. Science literacy also involves applying science knowledge to solve problems, which results in strong empathy and sensitivity to oneself and one's environment when making decisions (Nuro et al., 2020). OECD in (S. S. Kamila & Sabir, 2021) explained that science literacy is scientific knowledge and skills to be able to identify questions, obtain new knowledge, explain scientific phenomena, and make conclusions based on facts, understand the characteristics of science, understand how science and technology shape the natural, intellectual, and cultural environment, and the willingness to engage and care about science-related issues. Science literacy is the ability of a person in the field of science to use their knowledge to solve problems, discover new information, explain scientific phenomena, and make conclusions based on relevant information (Limiansih & Susanti, 2021).

PISA 2006 (Yosef Firman Narut & Kanisius Supardi, 2019), Science literacy can be characterized from the aspect of being aware of life situations involving science and technology. This is the context for assessment units and items; understanding the natural world, including technology, on the basis of scientific knowledge that includes knowledge of nature and knowledge of science itself; and competencies including identifying scientific questions, explaining scientific phenomena, and using scientific evidence as the basis of arguments for conclusions and decisions.

The use of interactive learning media in grade 6 students of SDN Tenjolaya 1 is able to develop students' science literacy skills, where students demonstrate understanding of complex scientific concepts in a more interesting, fun, yet challenging way that provides encouragement to continue learning. students are able to explain scientific phenomena and apply their knowledge in the real context of their lives. Students are encouraged to think critically and analytically by analyzing information, formulating questions and evaluating scientific evidence from information about the continents of the world. Students are given the opportunity to collaborate and discuss to strengthen their understanding and perspective on the continents of the world. The visual display in the interactive learning media helps students to understand scientific issues that occur in their surrounding environment.

Improving Student Learning Motivation

During the learning process, students showed high enthusiasm, active engagement, and initiative in learning. This was evident from their spontaneous responses when interactive media were presented (interactive maps, animations, digital quizzes), as well as their participation in group discussions and educational games.

Some students said that interactive media made learning fun and not boring. Here are some quotes to support this:

S1: "I feel motivated to learn because I can see moving and colourful images of continents. It feels like playing a game while learning." (Interview, October 2024)

S2: "I usually get sleepy during science lessons, but when using interactive media, I don't want to stop learning." (Interview, October 2024)

S3: "When doing interactive quizzes, I want to win, so I focus more and remember the names of the continents." (Interview, 13 May 2025)

S4: "I became more confident in asking questions because the presentation was engaging and I understood it. So I wasn't shy about speaking up in class." (Interview, October 2024)

These findings indicate that interactive media can stimulate learning interest, ignite intrinsic motivation, and enhance students' confidence to actively engage in the learning process.

Development of Students' Science Literacy

In terms of science literacy, students demonstrated a better understanding of basic geographical concepts, such as the geographical location of continents, differences in climate between continents, and the relationship between location and living conditions.

Some student quotes indicate scientific thinking processes, the ability to connect information, and the ability to present information:

S5: "I now understand why there are so many wild animals in Africa; it's because the climate is hot and there are many grasslands." (Interview, October 2024)

S6: "I can explain why the South Pole is so cold, it's because it's far from the equator." (Interview, October 2024)

S7: "When I watched a video about the Asian continent, I understood why it has such a large population—because it's a vast and fertile region." (Interview, October 2024)

S8: "In the media, there is a seasonal simulation, so I understand why the seasons in Australia are different from those in Indonesia." (Interview, October 2024)

These quotes show that interactive media supports students in building observation-based knowledge, connecting information across topics, and understanding simple scientific concepts functionally.

Teachers' Views on the Effectiveness of Interactive Media

Science teachers stated that the use of interactive media helps students understand abstract or conceptual material. Teachers also observed an overall increase in student interest.

Teacher: 'Usually, children have difficulty imagining the location of continents and the weather in each region. But when I use interactive media, they respond immediately. They actively ask questions and engage in lively discussions.' (Interview, October 2024)

Teachers also emphasise the importance of the facilitator's role in guiding the use of media, as well as the need for systematic lesson planning so that interactive media does not merely become entertainment but truly serves as a meaningful learning tool.

DISCUSSION

This study shows that the use of interactive learning media is effective in increasing the learning motivation and science literacy of sixth-grade elementary school students in the subject of Continents of the World. The interactive media used, which includes interactive maps, explanatory videos, and digital-based quizzes, is able to create an engaging, participatory, and challenging learning environment for students. The concept of learning media packaged in the form of an adventure makes students interested in being directly involved in learning. The results of observations and interviews show that students feel more enthusiastic, focused, and motivated to understand the material in depth. They are not only able to remember the locations and names of continents, but also demonstrate scientific thinking, such as explaining the relationship between geographical location and climate, as well as its impact on the lives of living things in various regions of the world. These findings are in line with previous research stating that digital media not only enhances deeper cognitive processing and emotional connections, but also facilitates active participation in learning activities (Yuliarti et al., 2024). Furthermore, students active engagement through interaction with media has been shown to encourage scientific dialogue between students and teachers, which positively impacts the strengthening of science literacy competencies. Therefore, interactive learning media not only serve as visual aids but also as catalysts for meaningful learning that encourage students to think critically, reflectively, and contextually about the learning material.

In line with these findings, this study theoretically reinforces the framework that interactive learning media are not merely visual aids, but rather effective pedagogical strategies for integrating conceptual and affective learning (Handayani et al., 2024). Learning motivation and scientific literacy are proven not to operate independently but rather reinforce each other within a learning ecosystem that is enjoyable, challenging, and meaningful. This supports

constructivist theory, which positions students as active participants in constructing knowledge through technology-based learning experiences (Sayaf, 2023).

This study provides practical input for teachers and curriculum developers to more seriously integrate interactive learning media into learning activities. Teachers can utilise interactive media based on simulations, digital maps, and online quizzes to foster students' curiosity and scientific understanding. Schools and education policymakers need to promote teacher training in educational technology literacy and provide digital infrastructure that supports interactive media-based learning. This is important to ensure that all students, including those in areas with limited access, can obtain a quality science learning experience.

The urgency of developing learning that is oriented towards improving 21st century competencies, such as critical thinking and problem solving, is also reflected in this study. This is in line with the statement that digital learning effectively helps build 21st century skills that are essential for success in the workplace and modern life (Thang et al., 2014). In this study, it was demonstrated that technology-based learning experiences make students more engaged and motivated, thereby supporting a more effective learning process.

Although this study makes a significant contribution to understanding the effectiveness of interactive learning media in the context of basic science education, there are several limitations that need to be considered. First, the approach used in this study is descriptive qualitative, which focuses on a deep understanding of phenomena within a specific context. This approach is not designed to produce broad generalisations, so the findings obtained are only strongly applicable to the context of sixth-grade students at the primary school where the research was conducted. Variations in school characteristics, technological resources, and students' social backgrounds in other regions may yield different findings. Second, the relatively limited number of participants, as well as the unit of analysis focused on one class and one learning material, namely 'benua di dunia' limits the study's ability to explain the influence of interactive media on motivation and science literacy in a broader scope of science material or at different grade levels. Therefore, these results cannot be directly applied to represent the effectiveness of interactive media in all science learning contexts in primary schools. Third, time constraints and intervention cycles also posed challenges. This study was conducted within a limited time frame, making it impossible to observe the long-term effects of interactive media use on sustainable changes in students' learning motivation and science literacy skills.

Based on the results and limitations identified, there are a number of opportunities that can be developed in further research to expand understanding of the effectiveness of interactive learning media in the context of primary education. First, further studies are recommended to use quantitative approaches or mixed methods to more objectively measure the impact of interactive media use on variables such as learning motivation, science literacy, and student learning outcomes. Quantitative approaches will enable more systematic hypothesis testing and broaden the generalisation of findings to a wider population. Second, further research could examine the effectiveness of interactive learning media on other science topics. This is important to determine whether the effectiveness of interactive media is contextual to specific material or has a consistent effect on all basic science topics. This research could also be expanded to different grade levels, such as 4th or 5th grade, to see the continuity of the impact of interactive learning on students' science literacy development. Third, with the development of technology, further research can explore the effectiveness of new technologies such as Augmented Reality (AR), Virtual Reality (VR), and Artificial Intelligence (AI) in basic science learning. The integration of these technologies has the potential to provide a more adaptive learning experience, which is believed to further enhance student engagement and science literacy in a more personalised manner.

CONCLUSION

The use of interactive learning media has a significant positive impact on the learning motivation and science literacy of sixth-grade elementary school students in the subject of Continents of the World. Students show increased active engagement, enthusiasm for learning,

and intrinsic motivation to understand the material. The use of interactive media such as videos, animations and educational apps successfully increased students' engagement in the learning process. Students show interest and active participation during learning, which contributes to their increased motivation to learn about the continents of the world. Survey results and observations show that students feel more motivated and interested in learning when using interactive media compared to traditional learning media. Learning is considered successful and quality because students are actively involved, both physically, mentally and socially in the learning process (N. Kamila, 2018). Interactive learning media also plays an important role in improving students' science literacy. By visualizing complex concepts and presenting interesting information, students can understand the material about the continents of the world better. Students are active in conducting discussions and collaboration in the learning process. Students are better able to think critically and systematically about scientific issues that occur in the environment around them. The learning outcomes that students get are not only remembering information but also being able to apply it in a broader context. By using this interactive learning media, students have the concept of critical thinking and creative problem solving skills. Based on the above explanation, interactive learning media is effective in increasing learning motivation and science literacy of grade 6 students of SDN Tenjolaya 1. By providing a more interesting and interactive learning experience, students are not only more motivated to learn, but also able to understand complex concepts well. Thus, the integration of interactive learning media in education can be an effective tool to improve the quality of learning at the primary school level, preparing students to face future challenges with contextualized knowledge and skills.

However, to maximize the effectiveness of using interactive learning media, there needs to be support from various parties. Both in terms of providing adequate facilities and infrastructure, teacher readiness in preparation and proficiency in the use of software and hardware, development of quality content and relevant to the curriculum. The need for further development of various types of interactive learning media that can be adapted to the characteristics of students and diverse learning materials. In addition, further research needs to be conducted to identify the most effective types of interactive learning media for various learning materials and different grade levels.

ACKNOWLEDGEMENT

I would like to express my deepest gratitude to the principal of SDN Tenjolaya 1, the Grade 6 students of SDN Tenjolaya 1, and all the teachers who gave me permission to conduct this research. Your support and cooperation were invaluable in realizing this research.

REFERENCES

- Afifah, N., Kurniawan, O., & Noviana, E. (2022). Pengembangan Media Pembelajaran Interaktif Pada Pembelajaran Bahasa Indonesia Kelas Iii Sekolah Dasar. *Jurnal Kiprah Pendidikan*, 1(1), 33-42. <https://doi.org/10.33578/kpd.v1i1.24>
- Ahnaf Istiqlal Berutu, Mafira Roza, & Riki Naldi Hsb. (2024). Peran Guru Dalam Menggunakan Media Pembelajaran Interaktif Untuk Membangun Motivasi dan Minat Belajar Siswa. *Inspirasi Dunia: Jurnal Riset Pendidikan Dan Bahasa*, 3(3), 88-97. <https://doi.org/10.58192/insdun.v3i3.2249>
- Ali, A., Dea Venica, S., Aini, W., & Faisal Hidayat, A. (2025). Efektivitas Media Pembelajaran Interaktif dalam Meningkatkan Minat dan Motivasi Belajar Siswa Sekolah Dasar. *Journal of Information System and Education Development*, 3(1), 1-6. <https://doi.org/10.62386/jised.v3i1.115>
- Andriani, R., & Rasto, R. (2019). Motivasi belajar sebagai determinan hasil belajar siswa. *Jurnal Pendidikan Manajemen Perkantoran*, 4(1), 80. <https://doi.org/10.17509/jpm.v4i1.14958>
- Aritonatonang, keke t. (2018). Minat dan Motivasi Dalam Meningkatkan Hasil Belajar Siswa. *Jurnal Pendidikan Penabur*, 3(10), 11-21.
- Aulia, H., Hafeez, M., Mashwani, H. U., Careemdeen, J. D., Mirzapour, M., & Syaharuddin. (2024). The Role of Interactive Learning Media in Enhancing Student Engagement and

- Academic Achievement. *International Seminar on Student Research in Education, Science, and Technology*, 1, 57–67. <http://journal.ummat.ac.id/index.php/issrestec>
- Azhari, N. P. (2024). Penerapan Media Pembelajaran IPA Interaktif dalam Meningkatkan Literasi Sains Siswa di Sekolah Dasar. *Journal of Research Applications in Community Service*, 3(3), 47–52. <https://doi.org/10.32665/jarcoms.v3i3.2967>
- Carstens, K. J., Mallon, J. M., Bataineh, M., & Al-Bataineh, A. (2021). Effects of Technology on Student Learning. *TOJET: The Turkish Online Journal of Educational Technology*, 20(1), 105–113. <https://files.eric.ed.gov/fulltext/EJ1290791.pdf>
- Chuang, Y.-T. (2014). Increasing Learning Motivation and Student Engagement through the Technology- Supported Learning Environment. *Creative Education*, 05(23), 1969–1978. <https://doi.org/10.4236/ce.2014.523221>
- Daryanes, F., Darmadi, D., Fikri, K., Sayuti, I., Rusandi, M. A., & Situmorang, D. D. B. (2023). The development of articulate storyline interactive learning media based on case methods to train student's problem-solving ability. *Heliyon*, 9(4), e15082. <https://doi.org/10.1016/j.heliyon.2023.e15082>
- Dewi, C. (2023). Jurnal Pemberdayaan Masyarakat Madani. *Jurnal Pemberdayaan Masyarakat Madani*, 7(2), 269–292.
- Faturrokhman, R. (2024). Media Pembelajaran Interaktif Meningkatkan Keterlibatan Dan Pemahaman Siswa Di Sekolah Smk Pembangunan. *Jip*, 2(4), 713–721.
- Handayani, E. S., Yani, H. A., Arafat, Y., Kusumarini, E., & Sakti, B. P. (2024). Urgensi Pemanfaatan Media Pembelajaran Interaktif Pada Pendidikan Tingkat Sekolah Dasar di Era Cybernetics. *INNOVATIVE: Journal Of Social Science Research Volume*, 4, 8522–8530.
- Hapsari, D. I. S., & Fahmi, S. (2021). Pengembangan Media Pembelajaran Interaktif Berbasis Android Pada Operasi Pada Matriks. *FIBONACCI: Jurnal Pendidikan Matematika Dan Matematika*, 7(1), 51. <https://doi.org/10.24853/fbc.7.1.51-60>
- Island, F., Islands, G., Fuke, Y., Iwasaki, T., Sasazuka, M., & Yamamoto, Y. (2021). 福家悠介 1・岩崎朝生 2・笹塚諒 3・山本佑治 4. 71(1), 63–71.
- Kamila, N. (2018). Keaktifan: Upaya Guru Dalam Meningkatkan Keaktifan Belajar Pai Melalui Metode Index Card Match Pada Siswa Kelas Vii Di Smpn 1 Kunjang Kediri. *Jakarta: Gaung Persada (GP) Press*, 2007, 9–38.
- Kamila, S. S., & Sabir. (2021). Literasi Sains Berbasis Proyek Di Masa Pandemi Covid-19.
- Limiansih, K., & Susanti, M. M. I. (2021). Identifikasi Profil Literasi Sains Mahasiswa PGSD. *DWIJA CENDEKIA: Jurnal Riset Pedagogik*, 5(2), 313. <https://doi.org/10.20961/jdc.v5i2.56281>
- Lina, E. (2024). Implementasi Problem Based Learning Berbantuan Media Pembelajaran Inovatif Untuk Meningkatkan Literasi Sains Siswa Sekolah Dasar. *Jurnal Holistika*, 8(2), 88–98. <https://doi.org/10.24853/holistika.8.2.88-98>
- Mohamad, M., Palani, K., Nathan, L. S., Sandhakumarin, Y., Indira, R., & Jamila, E. (2023). Educational Challenges in the 21st Century: A Literature Review. *International Journal of Academic Research in Progressive Education and Development*, 12(2), 1221–1227. <https://doi.org/10.6007/ijarped/v12-i2/16865>
- Nuro, F. R. M., Suwandayani, B. I., & Majid, I. N. (2020). Penerapan Literasi Sains di Kelas IV Sekolah Dasar. *Jurnal Pemikiran Dan Pengembangan Sekolah Dasar (JP2SD)*, 8(2), 179–187. <https://doi.org/10.22219/jp2sd.v8i2.15189>
- Oktarika, & Dharmayanti. (2015). Analisis kesiapan guru dalam pembuatan media pembelajaran berbasis komputer dengan trigger pada mgmp ipa kabupaten bengkayang (Studi kasus pada Musyawarah Guru Mata Pelajaran IPA SMP di Kabupaten Bengkayang). *Jurnal Pendidikan Indonesia*, 53(9), 1689–1699.
- Rachmadtullah, R. (2020). The challenge of elementary school teachers to encounter superior generation in the 4.0 industrial revolution: Study literature. *International Journal of Scientific and Technology Research*, 9(4), 1879–1882. https://api.elsevier.com/content/abstract/scopus_id/85083439714
- Rahman, H., Faisal, M., & Syamsuddin, A. F. (2024). Meningkatkan Motivasi Belajar Peserta

- Didik Melalui Model Pembelajaran Problem Based Learning Berbantuan Multimedia Interaktif. *Jurnal Pendidikan Dasar Dan Keguruan*, 9(1), 12–24. <https://doi.org/10.47435/jpdk.v9i1.2778>
- Sayaf, A. M. (2023). Adoption of E-learning systems: An integration of ISSM and constructivism theories in higher education. *Heliyon*, 9(2), e13014. <https://doi.org/10.1016/j.heliyon.2023.e13014>
- Syawaluddin, F. A., Siregar, J. S., Megawati, B., & Samsir, S. (2021). Pengembangan Media Pembelajaran Berbasis Multimedia Interaktif Untuk Meningkatkan Kemampuan Melakukan Sholat Siswa Sekolah Dasar. *At-Ta'Dib: Jurnal Ilmiah Prodi Pendidikan Agama Islam*, 13(1), 39. <https://doi.org/10.47498/tadib.v13i01.495>
- Thang, S. M., Sim, L. Y., Mahmud, N., Lin, L. K., Zabidi, N. A., & Ismail, K. (2014). Enhancing 21st Century Learning Skills Via Digital Storytelling: Voices of Malaysian Teachers and Undergraduates. *Procedia - Social and Behavioral Sciences*, 118, 489–494. <https://doi.org/10.1016/j.sbspro.2014.02.067>
- Vieira, R. M., & Tenreiro-Vieira, C. (2016). Fostering Scientific Literacy and Critical Thinking in Elementary Science Education. *International Journal of Science and Mathematics Education*, 14(4), 659–680. <https://doi.org/10.1007/s10763-014-9605-2>
- Yosef Firman Narut, & Kanisius Supardi. (2019). Literasi Sains Peserta Didik Dalam Pembelajaran Ipa Di Indonesia. *Jurnal Inovasi Pendidikan Dasar*, 3(Vol. 3 No. 1 (2019): JIPD (Jurnal Inovasi Pendidikan Dasar)), 61–69.
- Yuliarti, Riansi, E. S., & Sultoni, A. (2024). the Role of Digital Media in Indonesian Language Learning : Cognitive , Emotional , and Behavioral Dimensions Peran Media Digital Dalam Pembelajaran Bahasa Indonesia. *Geram, Jurnal Pendidikan, Sastra Dan Bahasa*, 12(2), 74–82.