



# Exploratory Study of Storyboard-Based Digital Comics in Primary School

Dwi Cahaya Nurani<sup>1\*</sup>, Vina Amilia Suganda M<sup>2</sup>, Budiansyah<sup>3</sup>, Fahmi Surya Adikara<sup>4</sup>,  
Miranti Miranti<sup>5</sup>

<sup>1,2,3,4</sup> Elementary School Teacher Education Sriwijaya University, Palembang, Indonesian  
\*dwicahayanurani@fkip.unsri.ac.id

**Abstract.** Storyboard-based digital comics are learning media in the form of comics that can be accessed via smartphones, computers, or laptops. This study aims to analyze the needs of storyboard-based digital comics in learning in class V of elementary school. This research uses descriptive research. This research was conducted through an exploratory study to provide an overview of the need for using storyboard-based digital comics in learning in class V of elementary school. Sampling in this study used purposive random sampling. Data collection techniques using observation, interviews, and documentation. The validity of the data is assessed using a triangulation technique to ensure the accuracy of the data in this study. While data analysis using interactive descriptive analysis. Based on the research that has been done, it can be concluded that (1) the implementation of learning uses learning resources in the form of printed books and learning media in the form of media images. (2) Teachers and students need learning media in the form of technology-based interactive learning media to increase students' interest and motivation in learning materials related to history.

**Keywords:** digital comics, storyboard, primary school.

## 1 Introduction

Technology is currently often used in the implementation of learning at all levels of education in Indonesia, including at the Elementary School (SD) level. This can be seen by the many technological integrations used by Elementary School (SD) teachers to transform learning materials and student knowledge during learning in the form of hardware, software, and brainware. It is hoped that with the existence of technology in learning, the learning objectives can be achieved effectively and efficiently. The basic principles of using technology in learning are: 1) system approach; 2) learner-centered; and 3) utilizing learning resources [1]. These three principles must be considered in the use of technology in learning.

One of the uses of technology in learning can be used by fifth grade elementary school (SD) students. The technology in question can be in the form of learning media for thematic learning, especially social studies material related to the history of the Indonesian nation. Learning media have an important role in the implementation of

learning because they make it easier for teachers to convey material to students, and students can easily understand the material being taught. The best possible use of technology in the field of education has many positive benefits in an effort to support the development of education so that it is more advanced and achieves [2]. The benefits of learning media are: (1) as a guide for teachers to achieve learning objectives; (2) increasing students' motivation and interest in learning [3].

The use of technology-based media is effective for learning [4]. The benefits of using technology-based learning media can attract student interest and improve student achievement [5]. Based on this, it can be said that the use of technology-based learning media can improve the quality of learning, increase student motivation for learning, and have a positive impact on student learning outcomes.

Based on reality, learning in elementary schools related to history still requires serious attention. Student learning outcomes on materials related to History are still low. The results of the study [6] show that the learning difficulties of fifth-grade elementary school students are caused by internal and external factors. Internal factors in the form of motivation and study habits, as well as student learning attitudes. While external factors can be influenced by the family environment, school, and student learning difficulties that are temporary.

In addition, other factors that affect learning difficulties in history are: (1) students' low interest in following learning materials related to history. The history material that is carried out is considered monotonous and makes students tense; (2) students' perceptions of historical material Students think that history material is very boring because history is synonymous with memorizing an event, the date and year of the event, as well as the characters in the event; (3) students' self-confidence The presumption that learning history is difficult and unpleasant indirectly limits students from studying it seriously; (4) the teacher's lack of creativity in designing history lessons The creativity of the teacher in question is related to the use of historical learning methods and relevant media and learning resources [7].

Learning in class V Elementary School related to history material is a challenge in this 21st century of learning. Low student motivation for learning History will have an impact on student learning outcomes. In order to meet the stated learning objectives, motivation is crucial. In order to drive children to learn, teachers must be involved as much as the students themselves. This is how motivation emerges [8]. Enthusiasm and motivation will combine to help pupils understand where their learning is headed. If students are motivated to study, motivation to learn will manifest itself. Therefore, in order to maximize the achievement of the established learning objectives, students must possess both intrinsic and extrinsic motivation. Therefore, to find out the causal factors and problem-solving techniques and provide solutions related to learning History in Elementary Schools, further research is needed. The purpose of this study is to provide an overview and conduct a needs analysis of learning History in fifth grade elementary school students so that innovation can be carried out in learning and student learning outcomes and motivation can be increased.

## 2 Method

This study used a descriptive type of research. Descriptive research approach is research that aims to determine the existence of independent variables without making comparisons between the variables themselves and looking for relationships with other variables [9]. This research was conducted at SD Negeri 16 Tanjung Batu on September 20, 2022. This research was conducted through an exploratory study to see the need to use storyboards in the learning of Class V elementary school students. The determination of the sample was carried out using purposive random sampling. Data collection techniques use observations, interviews, questionnaires, and documentation. The triangulation techniques used for the validity of the data Data analysis used descriptive and interactive analysis.

## 3 Result and Discussion

### 3.1 Result

The results of observations made at SD Negeri 16 Tanjung Batu show that the curriculum used in schools is the 2013 Curriculum. The material presented is adjusted to the material contained in the 2013 Curriculum, with the following details:

**Table 1.** Basic Competencies, Indicators, and Teaching Materials

Basic Competencies	Indicators	Teaching Materials
3.4 Identify the important factors that caused the colonization of the Indonesian people and their efforts to maintain their sovereignty.	3.4.1 Students can identify the background of the arrival of Europeans in Indonesia. 3.4.2 Students can learn about the efforts that have been made by the Indonesian nation to maintain its sovereignty.	Arrival of Europeans to Indonesia and Factors Behind It

Based on the results of an interview with one of the teachers at SD Negeri 16 Tanjung Batu, information was obtained that students were more enthusiastic about history-related material delivered by using instructional media. One of the media that attracted students' attention was media pictures. The teacher also provided information that she really needed learning media for historical material. The findings from an interview with one of these teachers are also in line with the results of an interview with several fifth grade students who stated that history learning material becomes very boring if learning is done only through lectures. Students also stated that having picture media or story books for historical material really helped them understand learning material; unfortunately, teachers at school had not used interesting learning media.

In addition, based on the results of the questionnaire filled out by students, it showed that learning resources related to historical material were still minimal. Students explained that the printed books they used were considered boring. In addition to printed books, media, and other learning resources used by teachers in history lessons, there are only pictures of heroes. Based on the explanation above, it can be concluded that learning media related to historical material are less varied. Given the character of students who like learning using pictures, it is necessary to innovate in the use of learning media. The results of the analysis of documents in fifth grade elementary school are that researchers have not found interactive learning media and teaching materials on material related to history in fifth grade elementary school learning.

### 3.2 Discussion

The rapid development of technology in learning should be of concern to teachers in elementary schools as an opportunity to make innovations in designing learning media. Learning media is a tool that can be used by teachers to make it easier for students to understand learning material. In line with the opinion [10] that learning media can help students study material systematically, it makes it easier for students to understand learning material. Learning media in the form of pictures do not help students understand the material. This means that the media used by SD Negeri 16 Tanjung Batu teachers in history material is not yet relevant to students' needs related to learning media.

Learning media that are suitable and effective for students to use in learning history are interactive learning media. Interactive media can increase the effectiveness of the learning process because students value both the appearance and programming aspects, which can increase student interest in the implementation of learning [11]. In addition, interactive learning media can help teachers design fun learning experiences for students [12].

The learning approach of implementing learning media is an effective way that teachers can empower students' potential according to their needs. The application of learning media provides a construction process that can train students in reasoning and critical thinking so that their understanding can increase. In addition, this approach will also increase students' attention and seriousness in interpreting the material being studied [13].

Based on the results of the analysis of problems in fifth-grade elementary schools, especially in material related to history, new innovations are needed that must be carried out by teachers to increase the interest and motivation of elementary school students. One thing that can be done by the teacher is to develop interactive technology-based learning media. Interesting learning media for students can be developed through the use of technology that is integrated into learning. Students feel happy and enjoy using technology in the implementation of learning in class because it is interesting and fun [14]. One of the interactive learning media that integrates technology into learning history material is learning media in the form of digital comics. This medium can be used in learning to increase student motivation and interest in learn-

ing. Digital comic learning media can also improve students' mastery of the concepts of Class V [15]. Digital comics are developed by utilizing technology, one of which is using Storyboards in learning history material for Class V Elementary School (SD). The use of storyboards in this study is devoted to the material about the arrival of Europeans in Indonesia. Storyboard is a series of words that contain a storyline, which can be supplemented with pictures so that it becomes a coherent and short story. In addition to increasing students' interest in learning, the use of storyboards in learning can increase student creativity [16]. Students are more stimulated to think and grasp when telling an event or experience through visual media [17]. Incorporating Storyboards and other innovative methods can make classes more interactive. By using the storyboarding approach, students are able to visually, cognitively, and creatively map out their ideas, which motivates them and gives them a sense of confidence and competence [18].

## 4 Conclusions and Recommendations

Based on the research that has been done, it can be concluded that (1) the implementation of learning on the material of the arrival of Europeans to Indonesia and the underlying factors uses learning resources in the form of printed books and learning media in the form of media images. (2) Teachers and students need learning media in the form of technology-based interactive learning media to increase students' interest and motivation in learning materials related to history.

In connection with the results of the research, there is a need for innovation by the teacher to create an interesting learning atmosphere. One of them is by developing learning media in the form of storyboard-based digital comics for the material on the arrival of Europeans in Indonesia and the factors behind it. The hope is that the development of learning media in the form of storyboard-based digital comics can have a positive impact on student motivation and learning outcomes.

## 5 Acknowledgements

I would like to thank all parties and respondents who were involved and helped complete this research. The research for this article was funded by DIPA of the Public Service Agency of Universitas Sriwijaya 2023, SP DIPA-023.17.2.677515/2023, On November 13, 2022. In accordance with the Rector's Decree Number: 0189/UN9.3.1/SK/2023, On April 18, 2023

## References

1. H.U. Salsabila, A. Niar, "Peran Teknologi Pendidikan dalam Pembelajaran," *J. Islamika : Jurnal Keislaman dan Ilmu Pendidikan*, vol. 3, 2021

2. D. Suminar, "Penerapan Teknologi Sebagai Media Pembelajaran Pada Mata Pelajaran Sosiologi," Proc. Seminar Nasional Pendidikan FKIP Universitas Sultan Ageng Tirtayasa vol. 2, pp. 774-783.
3. T. Nurrita, "Pengembangan Media Pembelajaran untuk Meningkatkan Hasil Belajar Siswa," *J. Misykat*, vol. 3, pp. 171-187. 2018.
4. E. Sutisna, L. Novita, M.I. Iskandar, "Penggunaan Media Pembelajaran Berbasis Teknologi, Informasi, dan Komunikasi dalam Meningkatkan Hasil Belajar Subtema Lingkungan Tempat Tinggalku," *J. Pedagonal: Jurnal Ilmiah Pendidikan*, vol. 4, pp. 1-6. 2020.
5. F. Firmadani, "Media Pembelajaran Berbasis Teknologi Sebagai Inovasi Pembelajaran Era Revolusi Industri 4.0," Proc. Konferensi Pendidikan Nasional "Strategi dan Implementasi Pendidikan Karakter pada Era Revolusi Industri 4. 2022.
6. D. K. Anggraini, "The Identification Of Learning Difficulties In 5th Grade Students At Sosrowijayan State Elementary Schools Yogyakarta," *J. Pendidikan Guru Sekolah Dasar*, vol 5. 2019.
7. A. Saidilla, "Kesulitan Peserta Didik dalam Proses Pembelajaran Sejarah," *J. Pendidikan Sejarah Indonesia (JPSI)*, vol. 1, pp. 214-235. 2018.
8. A. Emda, "Kedudukan Motivasi Belajar Siswa Dalam Pembelajaran," *Lantanida Journal*, Vol. 5, pp. 93-196. 2017.
9. Sugiyono, *Metode Penelitian Kualitatif*, Bandung: Alfabeta, 2020.
10. H.A.H. Sanaky, *Media Pembelajaran Interaktif-Inovatif*, Yogyakarta: Kaudaba Dipantara, 2013.
11. D. Tarigan, S. Siagian, "Pengembangan Media Pembelajaran Interaktif Pada Pembelajaran Ekonomi," *J. Teknologi Informasi & Komunikasi dalam Pendidikan*, vol. 2, 2015.
12. F.E. Mustikawati, "Fungsi Aplikasi Kahoot sebagai Media Pembelajaran Bahasa Indonesia," in *Seminar Nasional Pendidikan Bahasa dan Sastra*, 2019, pp. 99-104.
13. M. F. Al Hakim, S. Sariyatun, S. Sudiyanto, "Constructing Student's Critical Thinking Skill Through Discovery Learning Model and Contextual Teaching and Learning Model as Solution of Problems in Learning History," *J. International Journal of Multicultural and Multireligious Understanding*, vol. 5, pp. 175-183, 2018.
14. T. Heafner, "Using technology to motivate students to learn social studies," *J. Contemporary Issues in Technology and Teacher*, vol 4, pp 42-53. 2004.
15. D. Tresnawati, E. Satria, Y. Adinugraha, "Pengembangan Aplikasi Komik Hadits Berbasis Multimedia," *J. Algoritma*, vol. 13, pp. 99-105, 2020.
16. R. Winarni, E.R.P. Astusi, "Pengaruh Penggunaan Media Pembelajaran *Storyboard* Terhadap Kreativitas Belajar Siswa Pada Mata Pelajaran Seni Budaya" *J. Teknologi Pendidikan*, vol. 4, tahun 2019.
17. F.A. Syahmi, S. Ulfa, Susilaningsih, "Pengembangan Media Pembelajaran Komik Digital Berbasis Smartphone untuk Siswa Sekolah Dasar," *J. JKTP: Jurnal Kajian Teknologi Pendidikan*, vol. 5, 2022.
18. A. S. Narestuti, D. Sudiarti, U. Nurjanah, "Application of Digital Comic Learning Media to Improve Student Learning Outcomes," *J. Bioedusiana: Jurnal Pendidikan Biologi*, vol. 6, 2021.

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

