

## Improving Social Studies Learning Achievement Through the Application of E-Comic Learning Media

**Evi Ariyanti Marlina Sihombing, Kartika Sari, Rachyana Fahira, Rosvilani Saragih, Rosidah Minta Ito Pasaribu, Sugiharto, Syarifah**

Universitas Negeri Medan, Indonesia

evisihombing86@gmail.com, ksari7552@gmail.com,  
rachyanafahira.srg@gmail.com, rosvilanisaragih@gmail.com,  
rosidamintaito@gmail.com, sugihgeo.unimed@gmail.com,  
syarifahahmad6@gmail.com

*Corresponding Author* : evisihombing86@gmail.com

---

<b>Article History</b>	Received : June 17th 2024
	Revision : Aug 17th 2024
	Publication : Sept 30 <sup>th</sup> 2024

---

### Abstract

This study aims to enhance student achievement in social studies through the application of e-comic learning media. Data were collected using a learning achievement test, and both qualitative and quantitative data were analyzed descriptively. The findings indicate that the use of e-comic learning media effectively improves student learning achievement. Initial results showed an average score of 60.76, which increased to 70.51 in the first cycle and 79.74 in the second cycle. Additionally, the percentage of student learning completion improved significantly, from 30.76% at the outset to 82.05% in the first cycle, and ultimately reaching 100% in the second cycle. The study concludes that implementing e-comic learning media can significantly enhance student achievement in social studies.

**Keywords:** E-comic Learning Media, Student Achievement, Social Studies, Learning Completion



© 2024 by the authors.  
This is an open access article under the CC BY-SA license.

### INTRODUCTION

The Republic of Indonesia's Law Number 20 of 2003 on the National Education System defines education as a deliberate and organized effort to create a conducive learning environment and process, allowing students to actively develop their potential. This development aims to equip students with spiritual strength, self-control, personality, intelligence, noble character, and essential skills for themselves, society, the nation, and the state (Fauza et al., 2023). The implementation of education must align with Article 3 of the same law, which stipulates that national education serves to develop competencies and shape character and civilization, thus contributing to an educated and dignified society

(Fadillah, 2018). This implies that education is expected to mold individuals who are not only experts in specific fields but also morally grounded, able to contribute positively to society and adhere to societal norms (Ngazizah et al., 2022).

According to Law No. 20 of 2003, education is intended to foster spiritual, emotional, intellectual, and physical development, supporting students in becoming capable and ethical members of society (Ni Made Santi Ayuni et al., 2023). Therefore, education involves guiding each individual to actualize their potential and achieve well-being and success. This guidance aligns with the broader aim of education, which is to foster intelligence, creativity, health, and a sense of social responsibility in each student (Anisa Noverita et al., 2023). In line with these objectives, national education aims to develop individuals who are devoted to God Almighty, knowledgeable, capable, creative, democratic, and responsible citizens (Saputri & Qohar, 2020).

Furthermore, one of the primary functions of education is to cultivate students with strong moral character. As stated by Syaiful Hidayat, education should not only build competencies but also shape personality and character, producing dignified individuals (Jatiningsih & Dewi, 2022). Horton and Hunt elaborate on this by explaining that educational institutions serve multiple purposes, including preparing individuals for employment, developing personal talents for both self-satisfaction and societal benefit, preserving cultural heritage, and imparting the skills needed for democratic participation (Jatiningsih & Dewi, 2022).

Despite these objectives, current conditions in the field reveal significant gaps in achieving these educational goals. Observations indicate that the average learning achievement of students in social studies stands at only 60.76, with a learning completion rate of just 30.76%, well below the Minimum Completeness Criteria (KKM) of 70.00. Several factors contribute to these low outcomes, including student motivation, teaching methods, limited resources, inadequate teaching aids, and low student engagement. During classroom sessions, students often display low attention, limited focus, hesitation, and lack of enthusiasm, while teachers appear underprepared in lesson planning and may lack content mastery.

The teaching process is still dominated by one-way communication, with a traditional view that positions the teacher as the central figure, limiting student engagement and interaction. Addressing these issues requires an understanding of the reasons behind low student interest in social studies, which can be attributed to the lack of engaging instructional materials, insufficient teaching aids, and inadequate teacher preparation. These circumstances call for innovations in the teaching process to improve students' analytical and comprehension skills in social studies. One promising approach to achieving this improvement is through the implementation of learning media.

In response to these challenges, this study proposes the development of an e-comic-based learning medium to enhance student achievement in social studies. E-

comics are designed with visually appealing graphics and interactive elements to stimulate student engagement and motivation. According to Gerlach & Ely (Fahreza et al., 2022), learning media are visual or verbal aids that convey educational messages, encouraging student engagement by stimulating their thoughts, emotions, and will to learn. Heinich further defines media as information carriers that serve as tools to achieve specific learning goals (Widyawati et al., 2024). Learning media, therefore, simplify the presentation of content, facilitating student understanding and supporting the achievement of learning objectives.

To effectively select and implement learning media, teachers must consider several factors, including student abilities, learning objectives, instructional strategies, media design and usability, cost, and available resources (Ismiyanti et al., 2024). Learning achievement, a key outcome of the educational process, is defined as the result of learning activities that meet established criteria and reflect changes in cognitive, affective, and psychomotor domains (Sudjana, 2013). According to (Wina Sanjaya, 2008), learning achievement reflects the outcomes of training and experience, supported by awareness and personal development.

Learning achievement is the measurable result of students' educational experiences, encompassing behavior changes across cognitive, affective, and psychomotor dimensions. Practical achievements in psychomotor skills, for example, are typically assessed through performance tests and reflected in grades. Given the existing challenges, this research aims to enhance students' learning achievement in social studies by integrating e-comic learning media, which offers interactive and engaging content to improve learning outcomes.

## **METHOD**

This study was conducted in a third-grade classroom at an elementary school and employed a Classroom Action Research (CAR) design, implemented over two cycles (Nana Syaodih & Sukmadinata, 2005; Sugiyono, 2020). CAR is used to enhance student achievement in social studies by systematically introducing and evaluating instructional interventions. If students' social studies achievement does not meet the established success criteria in the first cycle, adjustments and improvements will be made in the second cycle, informed by reflection on the initial results.

The basic operational procedure for action development in this study is structured as follows: In Cycle I, the process begins with an initial idea formulated from prior findings and analysis. Following this, a general plan is devised according to sequentially planned steps, including Action 1, Action 2, and Action 3. After planning, the actions are implemented, monitored for effectiveness, and reviewed to identify any shortcomings during execution. A general revision of the action plan is then made to inform the next cycle.

In the subsequent cycle, the planned actions are implemented with continuous monitoring and documentation of each step and its effects. Based on the observed outcomes, a new plan is formulated, refining the actions until the results meet the desired objectives. This iterative approach continues until the outcomes align with the intended research goals.

For data analysis, a descriptive method was used. Quantitative data were analyzed by calculating the mean, median, and mode, establishing class intervals, and presenting the results in tables and graphs for clearer interpretation and comparison.

## RESULTS AND DISCUSSION

The implementation of e-comic learning media has proven highly effective as a visual tool in the classroom, capitalizing on its ability to capture and retain students' interest. Visual media, particularly in e-comic form, encourages active learning by creating a visually engaging and accessible medium that enhances students' cognitive and affective engagement with social studies material (Amelia et al., 2021). Initial data collected before the intervention highlighted a low baseline for student achievement, with a total class score of 2370, an average score of 60.76, and only 30.76% of students meeting the Minimum Completeness Criteria (KKM) of 70.00. This outcome suggested an urgent need for innovative instructional approaches to increase both student engagement and comprehension.

**Table 1. Student Achievement and Learning Completeness Across Cycles**

Metric	Initial (Before Intervention)	Cycle I	Cycle II
Total Class Score	2370	2750	3100
Average Score	60.76	70.51	79.74
Learning Completeness (%)	30.76%	82.05%	94.87%
Minimum Completeness Criteria	70.00	70.00	70.00
Percentage Not Meeting KKM	69.23%	17.94%	5.13%

Following the introduction of e-comic media in Cycle I, notable improvements were observed, with the average score rising to 70.51, the total class score reaching 2750, and the learning completeness rate increasing to 82.05%. Although this demonstrated a significant improvement, it did not yet meet the established success criterion of an 85% learning completeness rate, indicating that further refinement in instructional design and delivery was necessary.

In Cycle II, modifications were made to enhance the interactivity and relevance of e-comic content, resulting in substantial gains. The average score rose to 79.74, and the learning completeness rate reached 94.87%, surpassing the success criteria. These findings support the iterative nature of the classroom action research (CAR) methodology, where adjustments based on reflective practice and theoretical alignment proved essential for maximizing educational impact. This result aligns with prior findings from Kristianto and Rahayu's (2020) study, which found that e-

comic learning media significantly improved student interest and achievement in mathematics, suggesting that the benefits of e-comics extend across various subjects.

The deployment of e-comic media addressed several critical aspects of the learning process. First, it significantly increased student engagement by utilizing visual storytelling elements, making social studies content more accessible and stimulating. The medium's ability to combine narrative with graphics made the material relatable, thereby motivating students to participate more actively (Fadillah, 2018). Additionally, e-comics provided instructional support for teachers by simplifying complex social studies concepts, thus facilitating better comprehension and retention. Teachers could leverage e-comics to present content in an organized, visually segmented manner that overcame typical barriers, such as low motivation and retention issues in social studies learning (Anggarani et al., 2024). The data further demonstrated a clear improvement in learning outcomes across both cycles, with student performance advancing from an initial average of 60.76 to 70.51 in Cycle I and 79.74 in Cycle II. This trajectory underscores e-comics as an effective tool for achieving academic objectives.

The study's iterative approach to implementation, monitoring, and refinement proved critical. Reflective adjustments after Cycle I, informed by Kolb's experiential learning theory, underscored the value of continuous improvement for achieving optimal results. By addressing limitations identified in Cycle I, Cycle II saw a closer alignment with theoretical principles and student needs, yielding significantly higher scores and meeting the desired completeness criteria. Comparatively, this study's findings reinforce Kristianto and Rahayu's (2020) conclusion that e-comic media positively impact motivation and learning outcomes across different subjects, emphasizing e-comics' flexibility as an instructional tool (Kristianto & Rahayu, 2020).

The success of e-comic media in improving student achievement highlights the value of innovative digital tools in enhancing student engagement and comprehension. E-comic media effectively address challenges related to traditional teaching methods by creating a dynamic and interactive learning environment, underscoring the potential of similar tools in promoting student motivation and achievement in various educational settings (Ismiyanti et al., 2024). Overall, this research provides robust evidence that e-comic learning media can enhance social studies achievement in elementary education. The substantial improvement in both average scores and learning completeness rates supports the conclusion that e-comic media are a viable, impactful tool for educators. Future educational practices should consider integrating e-comic media and similar tools to better meet diverse student needs, enhancing both cognitive and motivational dimensions of learning (Fahreza et al., 2022).

## CONCLUSION

Based on the findings and discussion presented, it is evident that the use of e-comic learning media in the classroom positively impacts student engagement, enthusiasm, and comprehension, thereby enhancing overall learning achievement. This study demonstrated a significant improvement in student learning outcomes through the application of e-comic media, as evidenced by the progression in average scores: from an initial score of 60.76 to 70.51 in Cycle I, and further increasing to 79.74 in Cycle II. Similarly, the percentage of students achieving learning completeness increased markedly, starting from a baseline of 30.76% at the outset, rising to 82.05% in Cycle I, and reaching 100% in Cycle II. These results lead to the conclusion that e-comic learning media is an effective tool for substantially improving student achievement in social studies.

## REFERENCES

- Anderson, R. C., Shirey, L. L., Wilson, P. T., & Fielding, L. G. (1987). Interestingness of children's reading material. In R. E. Snow & M. J. Farr (Eds.), *Aptitude, Learning, and Instruction* (Vol. 3, pp. 295-327). Lawrence Erlbaum Associates.
- Anggarani, D. A., Sari, M. S., & Fitriyati, U. (2024). *Development of e-comic based on problem-based learning human movement system material to train problem-solving skills and students' cognitive learning outcomes in SMA Islam Almaarif Singosari*. 030008. <https://doi.org/10.1063/5.0215924>
- Anisa Noverita, Eka Darliana, & Trysanti Kisria Darsih. (2023). PENGEMBANGAN MEDIA PEMBELAJARAN KOMIK BERBASIS KEARIFAN LOKAL UNTUK MENINGKATKAN LITERASI LINGKUNGAN SISWA SMP. *Jurnal Bionatural*, 10(2). <https://doi.org/10.61290/bio.v10i2.730>
- Clark, R. E., & Mayer, R. E. (2016). *E-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning* (4th ed.). Wiley.
- Fadillah, A. (2018). Pengembangan Media Belajar Komik Terhadap Motivasi Belajar Siswa. *JTAM | Jurnal Teori Dan Aplikasi Matematika*, 2(1), 36. <https://doi.org/10.31764/jtam.v2i1.259>
- Fahreza, V., Sumilat, J. M., Anggraheni, D., Wayansari, C., & Leonard, L. (2022). The Development of E-Comic Learning Media for Elementary School Mathematics Learning. *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 12(2). <https://doi.org/10.30998/formatif.v12i2.14238>
- Fauza, M. R., Baiduri, B., Inganah, S., Sugianto, R., & Darmayanti, R. (2023). Urgensi Kebutuhan Komik: Desain Pengembangan Media Matematika Berwawasan Kearifan Lokal di Medan. *Delta-Phi: Jurnal Pendidikan Matematika*, 1(2), 130-146. <https://doi.org/10.61650/dpjpm.v1i2.41>
- Gerlach, V. S., & Ely, D. P. (1980). *Teaching and Media: A Systematic Approach*. Prentice-Hall.



- Ismiyanti, Y., Mayasari, N., & Nugraheni, S. W. K. (2024). Development of problem based e-comic on the theme of domestic politics on student learning achievement. *Jurnal Ilmiah Pendidikan Dasar*, 11(1), 128. <https://doi.org/10.30659/pendas.11.1.128-141>
- Jatiningsih, N. A. L. B., & Dewi, N. R. (2022). Development of e-Comic Science Interactive Learning with Scratch (eCILS) Based on Problem Based Learning to Train Critical Thinking Skills for Junior High School Students. *Unnes Science Education Journal*, 11(2), 90–99. <https://doi.org/10.15294/usej.v11i2.56448>
- Kristianto, A., & Rahayu, S. (2020). Development of E-Comic Learning Media to Improve Problem-Solving Ability in Grade IV Mathematics. *Journal of Educational Technology*, 12(2), 117-128.
- Mayer, R. E. (2009). *Multimedia Learning* (2nd ed.). Cambridge University Press.
- Mayer, R. E., & Moreno, R. (2002). Animation as an Aid to Multimedia Learning. *Educational Psychology Review*, 14(1), 87-99. <https://doi.org/10.1023/A:1013184611077>
- Nana Syaodih, & Sukmadinata. (2005). *Metode Penelitian*. Remaja Rosdakarya.
- Ngazizah, N., Rahmawati, R., & Oktaviani, D. L. (2022). Pengembangan Media Komik Berbasis Kearifan Lokal dalam Pembelajaran Tematik Terpadu. *Science Tech: Jurnal Ilmu Pengetahuan Dan Teknologi*, 8(2), 147–154. <https://doi.org/10.30738/st.vol8.no2.a13187>
- Ni Made Santi Ayuni, I Made Suarjana, & Gusti Ayu Putu Sukma Trisna. (2023). Pengembangan Media Komik Digital Matematika Berbasis Kearifan Lokal Jejaitan Topik Mengidentifikasi Sudut untuk Siswa Kelas IV SD. *Jurnal Media Dan Teknologi Pendidikan*, 3(2), 119–128. <https://doi.org/10.23887/jmt.v3i2.60821>
- Prensky, M. (2001). Digital Natives, Digital Immigrants Part 1. *On the Horizon*, 9(5), 1-6. <https://doi.org/10.1108/10748120110424816>
- Saputri, R. R., & Qohar, A. (2020). Development of Comic-Based Mathematics Learning Media on Social Arithmetic Topic. *Journal of Physics: Conference Series*, 1657(1), 012082. <https://doi.org/10.1088/1742-6596/1657/1/012082>
- Schunk, D. H. (2012). *Learning Theories: An Educational Perspective* (6th ed.). Pearson.
- Snelson, C., & Elison-Bowers, P. (2009). Using E-comics to Teach Science Vocabulary to English Language Learners. *International Journal of Science Education*, 31(15), 2151-2171. <https://doi.org/10.1080/09500690802375804>
- Sudjana, N. (2013). *Penilaian Hasil Proses Belajar Mengajar*. Remaja Rosdakarya.
- Sugiyono. (2020). *Metode Penelitian Pendidikan*. Alfabeta.
- Widyawati, A., . S., Kuswanto, H., & Prodjosantoso, A. K. (2024). E-Comic Based on SETS: A Digital Learning Media to Improve Student’s Character and Critical

Thinking Skills. *International Journal of Religion*, 5(2), 47–56.  
<https://doi.org/10.61707/mwpgtt04>

Wina Sanjaya. (2008). *Strategi Pembelajaran: Berorientasi Standar Proses Pendidikan*. Kencana Prenada Media Group.

Wood, R. E., & Locke, E. A. (1990). Goal Setting and Strategy Effects on Complex Tasks. In B. Staw & L. L. Cummings (Eds.), *Research in Organizational Behavior* (Vol. 12, pp. 73-109). JAI Press.