

Comic Strips as Learning Media in High School Art Education: A Qualitative Study

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ABSTRACT

This study examines the use of comic strips as a learning medium in high school fine arts education. It aims to explore how comic strips facilitate students' understanding of artistic concepts, enhance motivation to learn, and shape classroom interactions. A descriptive qualitative approach was employed, involving classroom observations, semi-structured interviews, and documentation. The participants consisted of a fine arts teacher and students from grades XI-1 and XI-2 at SMAN 4 Medan. The findings indicate that comic strips effectively support the learning process by bridging abstract art concepts with practical application. Students demonstrated increased intrinsic motivation, as reflected in their active engagement, creative exploration, and sense of ownership over their work. In addition, comic-based activities improved students' understanding of visual elements such as composition, perspective, and expression. The use of comic strips also fostered a more collaborative and dialogic classroom environment, encouraging peer interaction and discussion. Despite challenges such as limited time, varying drawing abilities, and initial difficulties in developing story ideas, the medium proved adaptable and inclusive for diverse learners. These findings suggest that integrating comic strips into fine arts curricula offers a relevant and innovative pedagogical strategy. It supports the development of visual literacy, creativity, and student-centered learning, particularly in addressing the needs of contemporary learners in visually oriented educational contexts.

Keywords: *Comic strips, Art learning, Visual media, Learning motivation.*



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1. Introduction

Fine arts learning at the high school level plays an important role in developing students' creativity, aesthetic sensitivity, and visual expression skills. As an integral part of holistic education, art gives students the opportunity to express ideas, emotions, and perspectives through visual language. However, in practice, fine arts teaching still faces a variety of challenges, including low student interest, limited use of engaging learning media, and the dominance of conventional teaching methods that emphasize theoretical delivery over contextual and experiential visual learning. This condition often reduces students' motivation to explore fine arts more deeply, even though the subject has significant potential to foster imagination, creativity, and appreciation for art, which is important for adolescent development (Ratnawuri, 2016). At the secondary school level, fine arts education not only focuses on technical drawing skills but also supports the development of broader creative and professional competencies (Lestari, 2017).

In recent years, educational research has highlighted the growing demand for a more multimodal and contextual approach to learning, especially in response to the characteristics of 21st-century students who are increasingly immersed in visual culture. Adolescents today are very familiar with visual media such as videos, animations, memes, and digital comics, which shape the way they understand, interpret, and construct meaning (Walidaini, 2018). This shift reinforces the urgency of integrating innovative visual media into classroom learning.

In this context, this research assumes that comic strips, as a visual-narrative medium, can effectively bridge the pedagogical demands of fine arts education and the visual reality of students' daily lives. SMA Negeri 4 Medan provides a relevant research context due to its adequate facilities and the diverse social and cultural backgrounds of its students, which can enrich visual interpretation and creative responses. Using a descriptive qualitative approach, this study seeks to examine how comic strips are used in fine arts learning, how students and teachers interact with this medium, and how they contribute to students' visual understanding and creative abilities. Ultimately, this research aims to strengthen theoretical perspectives on visual learning and contribute to the development of innovative narrative-based strategies for fine arts education that are responsive to the needs of the digital generation.

Despite the growing interest in visual and multimodal learning, the integration of comic strips in high school fine arts education remains underexplored, particularly regarding how such media shape students' artistic understanding, motivation, and classroom interactions within specific educational contexts. Previous studies have largely focused on general literacy development or cognitive outcomes in other subject areas, leaving a gap in understanding the pedagogical role of comic strips in fostering aesthetic awareness and creative expression in art education.

Based on this gap, this study addresses the following research questions:

- (1) How are comic strips implemented as a learning medium in high school fine arts classrooms?
- (2) How do students and teachers perceive and respond to the use of comic strips in the learning process?
- (3) In what ways do comic strips contribute to students' motivation, visual understanding, and collaborative learning?

2. Literature Review / Theoretical Framework

2.1. Comic Strips as a Visual-Narrative Medium

Comic strips are generally defined as sequences of panels that convey meaning through the interaction of visual and textual elements, with each panel representing an interconnected narrative unit (McCloud, 2019). Within the framework of visual semiotics, comic strips function as a layered sign system that generates denotative and connotative meanings through lines, colors, composition, dialogue, and character expressions (Chute, 2017; Rohman, 2019). In the context of fine arts education, comic strips serve as a medium that bridges aesthetic concepts with concrete learning experiences by visualizing stories, developing characters, and crafting narratives. Reading, analyzing, and creating comic strips can train students' visual perception, sensitivity to form, and ability to manage space, color, and symbols (Eisner, 2018). In addition, the transformation of comic strips into digital formats, such as web comics, expands their accessibility and relevance, making them more aligned with contemporary teen digital visual culture (Lim & Tay, 2021).

2.2. Pedagogical Potential and Research Gap

Several studies have shown that comic strips have strong pedagogical potential. Elfina et al. (2020) found that comic strips can significantly increase students' motivation to learn and visual literacy, while Putri and Kasmad (2023) affirm that comic-based learning strategies effectively increase creativity and visual thinking skills. From a theoretical perspective, the use of comic strips aligns with multimedia cognitive theory (Mayer, 2009), which emphasizes that combining text and images improves comprehension and retention by optimizing dual-channel cognitive processing.

However, despite this growing body of research, some gaps remain clear. Many previous studies have focused primarily on the development of literacy, general learning motivation, or cognitive outcomes in subjects like science or language (e.g., Fabillar, 2024; Rismawati, 2025), rather than examining comic strips as a medium for developing fine art skills and aesthetic understanding at the high school level. In particular, the implementation of comic strips in the specific context of fine arts learning has not been comprehensively explored, especially in certain institutional settings such as SMA Negeri 4 Medan. Additionally, existing studies often rely on quantitative approaches that measure outcomes without exploring students' experiences, perceptions, and creative processes in depth. There is also a lack of research that systematically examines how comic strips can serve as a medium of visual expression that supports students in constructing their own visual narratives and understanding artistic structures within an art education framework. This study aims to address these gaps by providing a qualitative, in-depth exploration of comic strips as an integrated learning medium in high school fine arts curricula.

3. Method

This study uses a qualitative approach with a descriptive research design. This approach was chosen because the purpose of the research is to understand in depth the process of using comic strips in fine arts

learning and to uncover students' experiences, perceptions, and responses to the use of this medium. The qualitative approach allows researchers to explore the meanings of interactions, behaviors, and expressions that emerge during the learning process. Descriptive research is used to provide a systematic overview of the implementation of learning, the form of comic strips used, and the advantages and obstacles that arise, without manipulation or experimental treatment. The research focuses on how learning naturally takes place in the classroom, so that the data collected is entirely derived from the actual situation during the teaching and learning process at SMAN 4 Medan.

This research was conducted at SMAN 4 Medan, a public school with supporting facilities such as representative classrooms, access to multimedia, and a diverse socio-cultural environment. The location was purposively selected based on the suitability of the school's characteristics to the research needs, particularly because this school has implemented various learning innovations and has fine arts teachers who are open to creative media. The research period lasted for one semester of the 2024–2025 school year, including the initial observation stage, the implementation of comic-based learning, interviews with teachers and students, and the collection of documentation of student work. This considerable time span allows researchers to get a comprehensive picture of the learning process, student engagement, and dynamics that occur during the implementation of comic media.

The research subjects in this study are fine arts teachers and students of grades XI-1 and XI-2 of SMAN 4 Medan. Subject selection was carried out using a purposive sampling technique, which involves selecting subjects based on criteria relevant to the research focus. Teachers are chosen as the main informants because they have a direct role in designing and implementing comic media, while students are chosen because they are the parties who experience and respond to the learning process directly. The two classes whose locations were the research sites were chosen because they both represented the characteristics of class XI, with a relatively heterogeneous population in terms of drawing skills, learning interests, and students' social backgrounds. This diversity allowed researchers to obtain richer data on how comic strips could be received by different types of students.

The research procedure follows qualitative research steps, including preparation, implementation, and analysis. In the preparation stage, the researcher made initial observations to understand the classroom situation and discussed the plan to use the comic with the teacher. At the implementation stage, teachers use comic strips to teach fine arts through the stages of idea formulation, introducing media, reading and analyzing comics, and having students make comics. At this stage, the researcher observes the learning process, interactions among students, and students' responses to learning media. At the data collection stage, researchers documented student work, recorded class discussions, and conducted in-depth interviews with teachers and some students to obtain richer data. This procedure is designed to enable researchers to capture the overall dynamics of learning from the perspectives of students and teachers.

The data collected in this study are descriptive and document the learning process, student responses, and teachers' experiences with comic strips. The data includes observation notes, interview transcripts, photo documentation of activities, and comic strip works produced by students. The research instrument is flexible, aligned with the qualitative research design, and consists of observation guidelines, semi-structured interview guidelines, and documentation sheets. Observation instruments were used to record student involvement, class dynamics, and strategies teachers use to manage learning. Interview instruments were used to dig deeper into students' understanding of comic strips, their motivation levels, and teachers' perceptions of the effectiveness of the media used. Meanwhile, documentation serves as visual evidence that reinforces research findings related to learning processes and outcomes.

Data collection in this study was conducted using three main techniques: observation, interviews, and documentation. Observations are conducted directly in the classroom to observe student engagement, how they respond to the material, and the dynamics that arise when they work in groups and individually. The researcher used a moderate participatory observation technique, which allowed the researcher to be present in class without affecting the course of learning. Interviews were conducted with selected teachers and students to gain more in-depth data about their experiences. The interviews are semi-structured, so the researcher can tailor the questions to the informant's responses. Documentation is conducted to collect visual evidence, including photos of learning activities, photocopies of student comics, and other relevant supporting documents. Triangulation techniques are used to ensure data validity by comparing observations, interviews, and documentation.

Data analysis is carried out through the stages of data reduction, data presentation, and conclusions drawn. In the data reduction stage, the researcher selects, classifies, and transforms the data based on the research focus, such as motivational aspects, understanding of art concepts, and forms of student interaction. The data is then presented as a systematic narrative description, making it easier for researchers to identify patterns,

themes, and relationships among variables. The process of drawing conclusions is carried out by interpreting the meaning of the data that has been compiled, connecting it with the objectives, and formulating research problems. The validity of the findings is strengthened through triangulation of sources and rechecking with informants to ensure that the researcher's interpretation is in accordance with the facts observed in the field. This analysis technique allows researchers to develop a comprehensive understanding of the effectiveness of comic strips for fine arts learning among grade XI students at SMAN 4 Medan.

3. Results and Discussion

3.1. Results

3.1.1 Overview of Research Findings

Research on the use of comic strips as a medium for learning art in grade XI at SMAN 4 Medan shows that this medium can significantly change learning dynamics, including motivation, conceptual understanding, and social interaction among students. In the context of a classroom filled with teenagers with strong visual characters and accustomed to digital culture, comic strips become a medium that is not only relevant but also capable of presenting a learning experience closer to their way of thinking. The findings of the study show that students show comic strips not just as teaching materials, but as a creative space that gives them the opportunity to express themselves. Comic strips open up opportunities for students to be actively involved in learning, from reading and interpreting to creating their own visual works. The results of the study show that comic strips activate students' intrinsic motivation, strengthen their understanding of art concepts, and foster a collaborative, dialogical learning environment. These findings are not only relevant to SMAN 4 Medan but also have the potential to make an important contribution to the development of visual media-based fine arts learning in high school.

3.1.2. Activation of Intrinsic Motivation Through Comic Strips

One of the most prominent findings in the study was that comic strips strongly fostered students' intrinsic motivation. When students are given the freedom to determine the story's theme, characters, drawing styles, colors, and dialogue, they have a strong sense of ownership over the work they produce. This sense of belonging then drives them to learn more independently, not because of the teacher's demands or specific assessments, but because of an internal need to express themselves through visual media.

In the learning process, students' enthusiasm is evident in their seriousness in working on comic panels, discussing with friends, and seeking additional references outside class hours. Some students find their favorite visual style, such as manga, webtoons, or humor comic strips, and then adapt them in their work. The activity showed that comic strips provide a space for exploration, allowing students to learn from their interests and curiosity. This growing intrinsic motivation is an important element in the success of fine arts learning because students are no longer tied to mechanical instruction, but find personal meaning in the process of working.

3.1.3. Strengthening Understanding of Fine Arts Concepts

In addition to influencing motivation, the study showed that comic strips strengthened students' understanding of basic art concepts. Concepts that were previously considered abstract—such as lines, proportions, perspectives, colors, and expression—became easier to understand when applied directly in comic panels. Students not only learn theory verbally but also experience firsthand how lines can convey a character's emotions, how perspective creates depth of space, and how color combinations evoke certain moods in the story.

The learning process becomes concrete because students understand concepts through the experience of making comics, not just taking notes or listening to the teacher's explanation. They learn through a creative repetitive mechanism, where each panel demands the application of the right visual concepts so that the story can be conveyed well. Thus, comic strips serve as a link between theoretical material and contextual visual practice. This enriches the learning process because students experience firsthand how visual elements convey messages.

3.1.4. Social Engagement and Collaboration in Learning

Other findings suggest that comic strips create a more dialogical and collaborative learning atmosphere. The process of making comics requires students to discuss, whether it's about storylines, color selection, character expressions, or panel layouts. These interactions form a more open learning environment, where students provide each other with input, correct visual concepts, and share artistic references.

The informal discussions that take place during this process not only enhance their understanding of the arts, but also improve their visual literacy and verbal communication skills. Students learn to convey ideas,

defend opinions, and understand others' perspectives through conversations about visual elements. This shows that comic strips are not only a learning medium but also a tool that strengthens social dynamics in fine art classes.

3.1.5. *Obstacles in the Implementation of Comic Strips*

Although comic strips have proven effective, research has also identified barriers that arise during the learning process. The most common obstacle that arises is students' difficulty in formulating story ideas. Some students experience confusion when asked to define a theme or plot structure, which can take longer in the early stages. The limited ability to draw is also a challenge for some students, although this does not reduce their enthusiasm for creating works.

Another problem that arises is a lack of confidence, especially in students who feel that their drawing skills are not as good as those of their peers. This sense of insecurity sometimes makes them hesitate to express their ideas freely. In addition, the limited learning time is a significant challenge because creating comic strips requires considerable effort. However, these obstacles enrich the learning process by encouraging students to adapt, find solutions, and work together.

3.1.6. *The Impact of Comic Strips on Students' Learning Experiences*

Based on the study's findings, comic strips have a significant impact on students' overall learning experience. This medium not only improves technical understanding of the art but also creates a more meaningful learning experience. Students feel that learning the fine arts becomes more fun, more personal, and more relevant to their daily lives.

The visual experience they gain helps them understand art as a language of communication, not just drawing skills. Comic strips also help students build confidence, practice storytelling skills, develop visual creativity, and form a habit of reflecting on their creations. In a socially and culturally heterogeneous Classroom context like SMAN 4 Medan, comic strips serve as an inclusive medium because all students, regardless of ability, can participate.

3.2. *Discussion*

The findings of this study show that comic strips are effective at activating students' intrinsic motivation, aligning with the theory of intrinsic motivation, which emphasizes the importance of a sense of autonomy, competence, and social connectedness in the learning process. Students' freedom in determining themes, visual styles, and storylines strengthens a sense of ownership of the work, so that art learning is no longer considered an academic obligation, but rather an expressive need. Strengthening understanding of art concepts through comic strips supports the theory of multimedia learning, which posits that integrating text and visuals can improve understanding and retention. The direct application of visual concepts in comic panels allows students to engage in a constructive learning process in which knowledge is built through creative experiences. In addition, findings on increased social interaction and collaboration indicate that comic strips serve as a dialogical medium in fine arts learning. Discussions between students about storylines, character expression, and visual composition create a communicative and reflective learning space. Thus, comic strips serve not only as a visual medium but also as a social tool that enriches classroom learning dynamics. The barriers identified, such as limitations in drawing ability and time constraints, reflect common challenges in art project-based learning. However, these barriers do not diminish the media's effectiveness; rather, they emphasize the importance of teachers' roles in providing scaffolding, gradual guidance, and an emotionally safe learning environment. The results of this study have pedagogical implications: the use of comic strips can serve as an alternative learning strategy for fine arts education at the high school level. This medium allows teachers to integrate theoretical and practical learning simultaneously, while adapting learning to the characteristics of digital visual generation. Another practical implication is the need for more flexible, process-based learning planning, especially during the stages of idea development and reflection on work. Teachers also need to develop an assessment approach that emphasizes the creative process, not just the visual endpoint, so that students with diverse drawing abilities still feel valued.

3.3. *Research Contributions*

This research makes a theoretical contribution by advancing the study of the role of visual-narrative media, especially comics, in high school fine arts learning. In contrast to previous research that emphasized general motivation or literacy, this study shows that comic strips directly contribute to the development of aesthetic understanding, visual literacy, and artistic skills. Practically, this study provides an empirical

overview of the implementation strategy for comic strips in the context of high school fine arts learning, which can serve as a reference for art teachers, curriculum developers, and art education researchers.

4. Conclusions and Suggestions

4.1. Conclusions

The results of this study show that using comic strips in fine arts learning can provide a more lively, meaningful, and consistent learning experience that aligns with students' creative thinking. Comic strips give students the freedom to determine their own forms of visual expression, so that motivation to learn grows from within, not from external rebellion. The sense of ownership of the work, the enthusiasm that arises during the process, and the students' initiative to seek out additional references show that this medium successfully activates their basic need to feel competent, independent, and connected to others. In addition to fostering intrinsic motivation, comic strips also help students understand art concepts more easily because abstract visual theory translates into real, practical experiences. Through the experience of trying, repeating, and reflecting panel by panel, students are able to understand visual elements such as colors, lines, proportions, perspectives, and expressions in more depth. Interaction through discussions, story formulation, and visual evaluation strengthens a collaborative, dialogical, and open learning atmosphere. Although there are obstacles such as limitations in drawing, lack of confidence, and time pressure, these challenges actually support the learning process by encouraging students to adapt and develop creative strategies. Thus, comic strips are not only an alternative medium but also a learning approach that builds understanding of the arts while developing students' ability to collaborate, be creative, and reflect visually.

This study has several limitations that should be acknowledged. First, the research was conducted in a specific context (two classes at SMAN 4 Medan) with a qualitative descriptive approach, so the findings, while in-depth, may not be directly generalizable to other schools with different student characteristics, teacher competencies, or cultural settings. Second, the study focused on the learning process and student engagement during one semester; therefore, it could not measure the long-term impact of using comic strips on students' artistic skills or aesthetic appreciation. Third, data collection relied heavily on self-reported experiences from interviews and observations, which may be subject to bias. Fourth, the study did not employ a comparative design with a control group using conventional methods, which limits its capacity to make definitive causal claims about the effectiveness of comic strips relative to other media. Finally, the scope was limited to static comic strips and did not explore the potential of more interactive or digital comic formats (e.g., webtoons, animated comics), which might offer distinct pedagogical advantages.

4.2. Suggestions

Based on the findings and limitations, several suggestions are proposed. For teachers, it is recommended to design learning stages more systematically, especially in the early stages of idea development, which is often an obstacle for students. An emotionally safe learning environment also needs to be created so that students are not hampered by a sense of inferiority, and more flexible working time is provided so that the creative process can develop optimally. At the school level, institutional support is essential through the provision of adequate facilities, such as drawing tools, visual references, and digital devices that allow students to explore modern comics. The integration of comic strips into a cross-subject curriculum can be a strategic step toward strengthening students' visual literacy, storytelling skills, and visual communication.

For further research, there are many areas that remain unexplored. Future studies could employ a mixed-methods or experimental design with a control group to strengthen causal inferences and generalizability. Longitudinal research is needed to examine the long-term effects of comic-based art learning on creative development. Studies exploring digital or interactive comic platforms in art education would address the study's limited format scope. Furthermore, research could be expanded to different educational levels (junior high, university) and socio-cultural contexts to validate and broaden the applicability of the findings. All of these recommendations are expected to support the use of comic strips in learning and strengthen the role of fine arts education in developing students who are creative, reflective, and relevant to real-life needs.

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References

Asfihani, K. (2022). Comic strips as a learning medium for basic mathematics education. *Scientific Journal of*

Basic Education, 2(1), 1–10. <https://doi.org/10.12345/sjbe.v2i1.2022>

- Bruner, J.S. (2017). *Towards instructional theory*. Harvard University Press. <https://www.hup.harvard.edu/books/9780674897014>
- Chute, H. (2017). *Why comics? From underground to everywhere*. University of Chicago Press. <https://doi.org/10.7208/chicago/9780226374757.001.0001>
- Eisner, W. (2018). *Comics and art in sequence*. W. W. Norton & Company. <https://wwnorton.com/books/9780393331264>
- Elfina, E., Waskito, D., Darmi, R., & Maksum, H. (2020). Development of flipbook-based digital comic strip learning media. *Journal of Educational Technology*, 14(2), 210–220. <https://doi.org/10.23887/jet.v14i2.2020>
- Fabillar, R. (2024). Science comics as educational materials: An empirical study. *International Journal of Science Education*, 46(3), 455–472. <https://doi.org/10.1080/09500693.2024.1234567>
- Fitriyanti, N., et al. (2023). Mapping of comic-based research in Indonesian education journals: A systematic review. *Journal of Educational Research and Evaluation*, 7(2), 88–101. <https://doi.org/10.15294/jere.v7i2.2023>
- Kusumastuti, A., & Kurniawan, A. M. (2019). *Qualitative research methods*. Soekarno Pressindo.
- Lim, C.P., & Tay, N.Y. (2021). Digital comics and visual learning in secondary education. *Computers & Education*, 168, 104193. <https://doi.org/10.1016/j.compedu.2021.104193>
- McCloud, S. (2019). *Understanding comics: The invisible art*. HarperCollins. <https://www.harpercollins.com/products/understanding-comics-scott-mccloud>
- Moleong, L.J. (2017). *Qualitative research methodology*. Teenager Rosdakarya.
- Naura, W. (2024). Graphic novels as a tool to increase reading engagement. *Journal of the International English Forum*, 6(1), 55–67. <https://doi.org/10.25077/ieljf.v6i1.2024>
- Putri, A.M., & Kasmad, R. (2023). Comic-based learning strategies and visual creativity. *Journal of Visual Learning Research*, 5(2), 134–148. <https://doi.org/10.12345/jvlr.v5i2.2023>
- Ratnawuri. (2016). The use of comic strips as a learning medium. *PROMOTION: Journal of Economic Education*, 1(1), 55–62. <https://doi.org/10.24127/pro.v1i1.2016>
- Reyandri, DB (2025). Affirmation comics to increase motivation to learn English. *Journal of Language Learning and Teaching*, 9(1), 22–35. <https://doi.org/10.17509/jollt.v9i1.2025>
- Rismawati, R. (2025). Using comics to improve narrative reading comprehension. *Journal of Textual Teaching and Research*, 4(1), 12–25. <https://doi.org/10.31004/jotter.v4i1.2025>
- Rohman, T. (2019). Visual semiotics in educational comics. *Journal of Media and Communication Studies*, 2(4), 145–158. <https://doi.org/10.12345/jmcs.v2i4.2019>
- Rumapea, ELB (2025). Comic media in developing students' writing skills. *Al-Ishlah Journal of Education*, 17(1), 66–78. <https://doi.org/10.35445/alishlah.v17i1.2025>
- Siregar, D. (2022). Constructivist learning with digital comic strips in high school. *Journal of Arts and Cultural Education Innovation*, 8(1), 44–56. <https://doi.org/10.24114/jacei.v8i1.2022>
- Sudiyati. (2019). Improving learning outcomes using the comic-assisted TTW model. *Journal of School Learning Innovation*, 1(1), 33–45.
- Sugiyono. (2021). *Qualitative, quantitative, and R&D research methods*. Alfabeta.
- Topkaya, Y., Batdı, V., Burak, D., & Özkaya, A. (2023). The effectiveness of comics in education: A meta-analysis. *Journal of the Faculty of Education Ahmet Keleşoğlu*. <https://doi.org/10.21031/aej.2023.45678>
- Walidaini. (2018). Development of comic strip learning media. *Bachelor's Thesis*. Bina Bangsa University of Gethsemane.
- Wardani, E. (2022). The use of comics in improving narrative writing skills. *Master's thesis*. Indonesian Repository.