

Development of comic media to improve English reading comprehension for senior high school students

Syahidin Wahyudin, Hamsu Abdul Gani, Awaluddin Muin

Universitas Negeri Makassar, Indonesia

Submitted:
12-01-2026

Accepted:
03-03-2026

Published:
01-10-2026

Abstract: English reading comprehension skills among students in Indonesia remain relatively low. This study focuses on developing comics as a learning media aimed at improving English reading comprehension among senior high school students. The study employs the research and development. The participants consisted of 10th-grade students: 5 for the individual trial, 23 for the large-scale trial, 30 for the needs analysis, and 71 for the effectiveness test. The results demonstrate consistency across product quality, student acceptance, and the effectiveness of using the comics. Expert validation indicates that the comics met suitability standards regarding content (96.60%) and media (61.60%). Positive student responses show that the product is acceptable, engaging, and practical for English language learning (scoring 90.67 in the small-group trial and 89.13 in the large-group trial). Meanwhile, the effectiveness test results reveal an improvement in reading comprehension following the use of the comics (N-gain = 0.58). The consistency of these findings indicates that the developed comics possess adequate quality as an English learning media for 10th-grade students.

Keywords: Comics, English problem, learning media, reading comprehension

Abstrak: Kemampuan pemahaman bacaan bahasa Inggris di kalangan siswa di Indonesia masih tergolong rendah. Penelitian ini berfokus pada pengembangan komik sebagai media pembelajaran yang bertujuan untuk meningkatkan kemampuan pemahaman bacaan bahasa Inggris siswa SMA. Penelitian ini menggunakan penelitian dan pengembangan. Partisipan penelitian terdiri dari siswa kelas 10: 5 siswa untuk uji coba perorangan, 23 siswa untuk uji coba skala besar, 30 siswa untuk analisis kebutuhan, dan 71 siswa untuk uji efektivitas. Hasil penelitian menunjukkan konsistensi dalam hal kualitas produk, penerimaan siswa, dan efektivitas penggunaan komik tersebut. Validasi ahli menunjukkan bahwa komik tersebut memenuhi standar kelayakan dari segi materi (96,60%) dan media (61,60%). Respons positif siswa menunjukkan bahwa produk tersebut dapat diterima, menarik, dan praktis untuk pembelajaran bahasa Inggris (dengan skor 90,67 pada uji coba kelompok kecil dan 89,13 pada uji coba kelompok besar). Sementara itu, hasil uji efektivitas menunjukkan adanya peningkatan kemampuan pemahaman bacaan setelah penggunaan komik tersebut (N-gain = 0,58). Konsistensi temuan-temuan ini mengindikasikan bahwa komik yang dikembangkan memiliki kualitas yang memadai sebagai media pembelajaran bahasa Inggris bagi siswa kelas 10.

Kata kunci: Komik, masalah bahasa Inggris, media pembelajaran, pemahaman bacaan

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



*Corresponding author: syahdinwahyudin26@gmail.com

INTRODUCTION

English proficiency is a crucial competency for students in the era of globalization and information technology advancement. English serves not only as a tool for international communication but also as a primary means of accessing global knowledge, technology, and information (Dianti et al., 2026; Faudi et al., 2023; Ota et al., 2023; Wahyuni et al., 2026). A solid knowledge base indicates effective instruction (Nasir et al., 2024). Therefore, English instruction at the secondary education level needs to focus on comprehensive language skill mastery, particularly reading comprehension.

However, the ability of Indonesian students to comprehend English reading materials is still low (Aini, 2024; Musahrain et al., 2018; Waruwu, 2024). The EF English Proficiency Index (2023) report ranked Indonesia in the low proficiency category. Many high school students find it hard to comprehend reading materials in English, especially the meaning of words, complex sentences, and overall context of the text. Based on the data from the Bone Regency Education Office (2023), many high school students find it difficult to understand complex texts in English, resulting in low grades in exams and poor English reading skills. This condition was also found in the initial study at SMAN 2 Bone; students find it difficult to comprehend English reading texts, are not interested in reading, and are not fond of long and traditional texts.

One of the solutions to overcome this problem is the need to develop innovative comic-based learning media. Comics are an effective medium for combining text and visuals (Bozkurt, 2023; Damopolii, Febrianto Paiki, et al., 2022). The information that appears simultaneously in the form of verbal and pictorial modes is easier for students to understand and remember (Abdussafa et al., 2026; Baga et al., 2022). In addition, learning media act as a major factor in the learning process to facilitate the transfer of knowledge from the instructor to the students (Sinambela et al., 2021; Wicaksono & Hartatik, 2023). In learning, comics are not only used as a visual tool but also as a way to motivate students to learn and arouse their interest in the material (Barchín, 2026; Br Kembaren et al., 2026; Ghafar et al., 2026). Learning media in the form of comics can make the learning process more engaging, efficient, and fun, thus contributing to the success of students' learning.

Comic is a visual communication medium that delivers information simply and concisely. Comics tell a story using images in the form of horizontal panels or boxes that are read from left to right (Damopolii, 2025; Haq et al., 2026). Comics usually contain specific characters or adventures that make them interesting and informative media (Arief et al., 2022; Clark, 2017). According to Damopolii (2025), comics are an effective tool to increase students' learning motivation. The interesting pictures and the story in comics make students more focused and engaged. In learning to improve reading comprehension, comics can be used to present texts in English in a contextual and interesting way for students so that they are easier to understand. Contextual media such as comics can help high school students improve their critical reading abilities (Girsang & Rini, 2021). Illustrations and text with everyday life themes enable students to relate the material to their experience, making it more meaningful. Besides, the language used in the comics is quite simple and communicative, so that students can understand the material in the reading texts. In other studies, the use of comics to improve students' reading comprehension has been investigated. Comics can help students understand reading texts, particularly those with low proficiency in the language because the pictures provide context for the text (Liu, 2004). The use of comics has a positive effect on students' English reading comprehension.

The results of the research show that the use of comics has a positive effect on students' comprehension of English reading texts. The results of this study explain that the use of comics as a learning medium in English contributes to the improvement of students' reading comprehension. This is in line with the research conducted by Liu (2004) that states the use of comics helps second-language learners understand reading texts because the visuals provide context for the text. Merc (2013) also stated that using comics has a positive effect on EFL students' reading comprehension because combining visuals and text helps

students understand the meaning of the text. In addition, Azizah and Hamid (2022) found that using comics could improve the reading skills and vocabulary mastery of tenth-grade students because language was presented in a meaningful context that was easier for students to understand. The results of the study by Purnama et al. (2023) revealed that English reading comprehension of high school students could be improved through the use of comics, while Fahmi et al. (2025) found that the use of comics could help students improve their reading text structure and learning motivation. Thus, the improvement of students' reading skills in this study explains that comics are an effective medium in learning to improve students' reading comprehension because they contain visual, language, and contextual elements that can help students understand English texts. Therefore, it is necessary to develop comics to improve students' reading comprehension skills. This study aims to develop comics to improve high school students' reading comprehension skills.

METHOD

This study focuses on developing comics as a learning media aimed at improving English reading comprehension among senior high school students. The study employs the Research and Development (R&D) method. It aims to produce an English learning comic that serves as an interactive tool, helping students grasp vocabulary, sentence structures, and reading contexts in English in a more enjoyable and accessible manner. The development stages involved are: (1) analysis of student needs and characteristics; (2) formulation of learning objectives and competencies; (3) design of the comic as a learning media; (4) development and formative testing; and (5) evaluation of validity, practicality, and effectiveness.

This study was conducted at SMA Negeri 2 Bone, South Sulawesi. The research was carried out at the school because it lacked a specific program or instructional media designed to improve students' English reading comprehension. Following on-site observations, the researcher found that although the students possessed basic English proficiency, many struggled to comprehend English reading texts in depth. Therefore, developing comics as an instructional media to enhance English reading comprehension was viewed as an appropriate solution to help students better understand English texts and vocabulary.

The subjects of this study were 10th-grade students, comprising 5 students for the individual trial, 23 for the large-scale trial, 30 for the needs analysis, and 71 for the effectiveness test. The selection of 10th-grade students as the primary focus was based on their developmental characteristics, as they are in the early stage of young adolescence. At this age, students are undergoing a crucial transition for the consolidation of their academic and intellectual identities, as well as experiencing more mature cognitive development compared to 9th-grade students. Students in the 10th grade—aged between 15 and 16—are in a period of personal identity formation, particularly within academic and social contexts.

Questionnaires were administered to students and teachers to gather data on students' understanding of English reading materials and their experiences using comic-based media during the learning process. The questionnaires aimed to assess students' reading comprehension levels before and after using comics, evaluate their responses and

impressions regarding the material presented through comics, and obtain teachers' perspectives on the role of comics as a learning aid for improving English reading comprehension. Tests were used to measure students' English reading comprehension levels before and after the use of educational comic media in the learning process. This study employed two types of tests—a pre-test and a post-test—designed based on reading comprehension ability indicators. The test data were structured around reading comprehension indicators, including the understanding of main ideas, detailed information, vocabulary, and implied meaning. Validation sheets were used to gather information regarding the validity of the materials and instruments employed in the study. Suggestions and feedback from the validation team were taken into account when revising the comics and other research instruments. Validators assessed several aspects, such as content suitability, language usage, and material relevance.

Descriptive analysis was conducted to process data from validator assessments—specifically from media/content experts, students, and teachers. This method involved categorizing qualitative data—such as input, feedback, critiques, and suggestions for improvement—gathered via questionnaires. The results of this analysis were used to refine the comic product, which serves as a learning media to enhance students' English reading comprehension. Quantitative analysis was performed to process data regarding student needs, as well as the media's validity, practicality, and effectiveness. Analysis of the educational comic's effectiveness aimed to determine the improvement in students' English reading comprehension following the use of the developed media. The analysis technique employed was the Normalized Gain (N-Gain), which measures the level of improvement in learning outcomes by comparing the difference between post-test and pre-test scores against the maximum achievable score. The resulting N-Gain values were then interpreted based on high, media, and low categories. The educational comic media was deemed effective if the average N-Gain value fell into the media or high category.

RESULTS AND DISCUSSION

The initial stage of this development research was a needs analysis, aimed at identifying the problems and needs of students regarding English reading learning media. This needs analysis was conducted through interviews with English teachers and the distribution of questionnaires to 30 Grade X students at SMAN 1 Bone, who served as the research subjects. Table 1 presents the results of the student needs analysis regarding the use of comics.

Questionnaire results indicate that the majority of students struggle to comprehend English reading texts. Specifically, 26 students reported difficulty grasping the content or main ideas, 27 identified limited vocabulary as a primary obstacle, and 25 struggled with complex English sentence structures. Additionally, 24 students found it difficult to infer information that was not explicitly stated in the text. These data reveal that the students' main challenges lie in reading comprehension, vocabulary, sentence structure, and inference skills.

Regarding learning motivation, the results show that 28 students quickly become bored or unmotivated when reading excessively long English texts. Conversely, almost all students (29) expressed greater interest in English materials accompanied by visual illustrations or images. Furthermore, 26 students found it easier to understand material

presented as narratives related to daily life. This suggests a need for learning media that are both visually engaging and contextually relevant. Comics serve as a visual medium that engages and motivates students to learn (Badeo & Koc, 2021; Damopolii, 2025).

Table 1. Results of needs identification

No	Question	Yes	No
1	Do you find it difficult to understand the content or main ideas of English reading texts?	26	4
2	Is a limited vocabulary your main obstacle when reading English texts?	27	3
3	Do you often struggle to understand complex English sentence structures?	25	5
4	Do you find it difficult to infer implicit information (information not explicitly stated) from a text?	24	6
5	Do you get bored easily or lose motivation when reading long English texts?	28	2
6	Are you more interested in reading English materials if they include visual illustrations or images?	29	1
7	Do you find it easier to understand material presented as a narrative story related to everyday life?	26	4
8	Do you enjoy reading comics in your spare time?	25	5
9	Do you feel that the English learning materials currently used by your teacher lack variety?	27	3
10	Do you think that a combination of images and short dialogue in comics helps you understand new vocabulary more easily?	28	2
11	Do you prefer using print-based learning materials (such as books or physical comics) over digital media because they help you stay focused?	24	6
12	Would you welcome English learning materials presented as comics featuring engaging storylines and characters?	29	1

The results also show that 25 students enjoy reading comics in their spare time, while 27 felt that the English learning media currently used by teachers lacked variety. Twenty-eight students stated that the combination of images and brief dialogue in comics helps them grasp new vocabulary more easily. Additionally, 24 students preferred print-based learning media, believing it helped them maintain better focus during study.

Almost all students (29) agreed that English materials should be presented in comic format, featuring engaging storylines and characters. Based on the results of the needs assessment, it can be concluded that Grade X students at SMAN 1 Bone require English reading learning materials that are engaging, contextual, and rich in visual illustrations, and that facilitate the understanding of vocabulary, sentence structures, and the main ideas of the texts.

Based on the survey done to 30 students, most of them (83.33%) had the experience of reading comics and preferred comics with the theme of school-drama (60%). The printed comics were the mostly used one by the students (50%) meanwhile 93.33% of the students preferred color comics. Furthermore, 76.67% of the students believed that comics could help them to comprehend the reading text especially in terms of vocabulary and main idea.

In relation to the educational story, the students were more interested to have teenage character in the setting of school (53.33%). The most wanted material in the comic was vocabulary and sentence structure (40%) followed by comprehension quiz (33.33%). Moreover, 66.67% of the students preferred implicit message in the story. Overall, the survey result shows that the use of color comics with the contextual story and the English learning materials would be good media to attract the students and support their reading comprehension.

Table 2. Results of student characteristic identification for comic development

No	Assessment Indicators	Y	S	N
1	Have you ever read comics?	25	5	0
2	What kind of comics do you like the most?	c: 18	8	0
	a. Adventure	b: 7	5	0
	b. Comedy	a: 4	4	0
	c. School drama	d: 1	12	1
	d. Educational			
3	What medium do you usually use to read comics?	a: 15	6	2
	a. Printed comics	b: 7		
	b. Digital comics			
4	Do you prefer images that are:	a: 28	2	0
	a. Color images			
	b. Black-and-white images			
5	Do you think comics can help with understanding English reading materials (vocabulary, main ideas)?	23	6	1
6	What kind of story is engaging for an English reading educational comic?	a: 16	5	0
	a. Teenage characters in a school setting	c: 9	8	0
	b. Fantasy with a moral message	b: 5	7	1
	c. Based on real-life events			
7	What is more important to address in English reading comics?	b: 12	8	0
	a. Types of reading texts	d: 10	6	0
	b. Vocabulary and sentence structure	c: 5	10	0
	c. How to infer the main idea	a:	11	0
	d. Comprehension quizzes	3		
8	Do you prefer comics with...	b:	8	2
	a. Direct and clear message	20		
	b. Message implied through the story			

Note: Y = Yes, S = Sometimes, N = Nothing

Based on the needs analysis above, the learning objectives were identified to ensure that the use of comic media would enhance students' reading comprehension in English. After the students use the comic media, they will be able to: (1) identify the main idea and the detailed information of the text, (2) understand the vocabulary from the story based on the contextual meaning, (3) comprehend the explicit and implicit meaning of the text, and (4) be more interested and motivated to read English text.

The design of this educational English comic was conducted by considering the student needs analysis, the learning objectives stated in the research proposal, and the design of the comic to be used in this research. This comic is intended to be the media for contextual learning and reading comprehension in which it is combined with the character values and environmental values through project based learning. The comic is named 'The Green School Project'. This comic tells the story of students in grade 10 who were given a project by their English teacher to make an action plan to improve the environment and record their activity in English. The selection of this comic was based on the consideration that the story was relevant to the students' life, thus, it was in accordance with the concept of meaningful learning. In addition, the use of this comic also incorporated the teaching of character values and social awareness as mentioned in the research proposal.

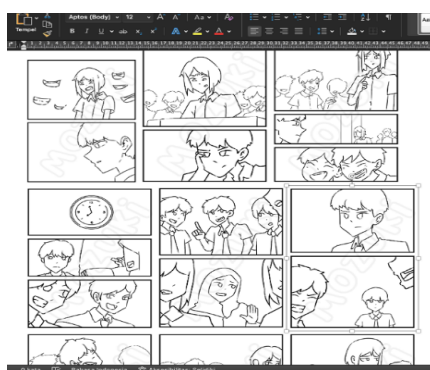


Fig. 1. Comic sketch

In terms of structure, the comic is divided into the following: (1) a cover with the title and the central image; (2) the first page with information about the characters and context; (3) the second part with a dialogue format to plan, perform, and evaluate the project; (4) a short lesson to introduce vocabulary and moral lessons; and (5) a comprehension quiz to test the reader's understanding. It is worth noting that the comic's structure allows students to learn the material step by step. Concerning the language, the comic is designed for 10th graders' English level. The dialogue format, simple, and context-based sentences help the readers to understand the story's plot and not miss any important information. The language of the comic is directly related to students' daily life, study, and environmental activities. Therefore, the comic helps learners improve their reading ability and vocabulary in context.

Visually, the comic is designed in an A5 print format featuring a simple, sequential panel layout that makes the storyline easy to follow. Color illustrations are used to clarify character expressions, situations, and emotions within the story. Color choices and visual designs are aligned with the story's atmosphere—such as the dominant use of green to represent environmental themes and a sense of care for the school.

Research results indicate that the comic developed as an English learning medium is valid, based on assessments by subject matter and media experts. This validity is evidenced by the alignment of learning objectives with the comic's content, the suitability of the material for 10th-grade students' characteristics, the use of grammar appropriate to the students' proficiency level, sentence readability, and the story content's ability to support reading comprehension. Apart from content, comics also fulfilled the quality criteria on

visuals which consisted of color and contrast, the consistent style of illustrations and characters, appropriate background, and illustrations that could help students understand the text. The results of the analysis proved that the quality of the learning medium was not only determined by the accuracy of the provided material but also by its packaging so that the material became comprehensible and interesting for the students.

Table 3. Storyboard

No	Panel/Scene	Visuals (Illustrations)	English Dialogue/Text	Learning Objectives
1	English Class	Teacher standing at the front of the class; students seated and attentive	<i>"Okay class! For our next project, you won't just be writing..."</i>	Introducing the story context and an environment-based project
2	Student Reactions	Students looking enthusiastic and surprised	<i>"A real project? That sounds amazing, Ma'am!"</i>	Practicing the understanding of expressions of feeling
3	Group Discussion	Students discussing in groups	<i>"Let's clean up the school garden behind the library."</i>	Developing environment-related vocabulary
4	Amusing Refusal	One student complaining with an exaggerated expression	<i>"That's not a project, that's punishment!"</i>	Understanding humor and opinions in the text
5	Garden Location	Dirty and neglected school garden	<i>"This isn't a garden. It's a monument of laziness."</i>	Practicing making inferences from visual descriptions
6	Planning	Students dividing tasks (plastic, leaves, documentation)	<i>"We sort the plastics for recycling."</i>	Understanding simple procedural texts
7	Documentation	Students taking photos/videos	<i>"Day one: We faced the beast."</i>	Connecting language to real-life activities
8	Meeting the Teacher	Students talking to the teacher	<i>"We want to put up posters and get school support."</i>	Practicing formal dialogue
9	Meeting the Principal	Principal listening to a presentation	<i>"You have my full support."</i>	Understanding persuasive texts
10	Campaign	Bilingual posters displayed at the school	<i>"Let's make our school greener!"</i>	Reading slogans and calls to action
11	Cleanup Day	Many students cleaning up the surroundings	<i>"The Big Cleaning Day"</i>	Understanding the main information in the text
12	Comparison	Before-and-after views of the garden	<i>"Before – After"</i>	Practicing the ability to compare information
14	Appreciation	Teacher and students looking proud	<i>"You started a movement."</i>	Identifying the moral message
15	Conclusion	Green and well-maintained school garden	<i>"It all started with a simple idea in English class."</i>	Drawing conclusions from the reading material

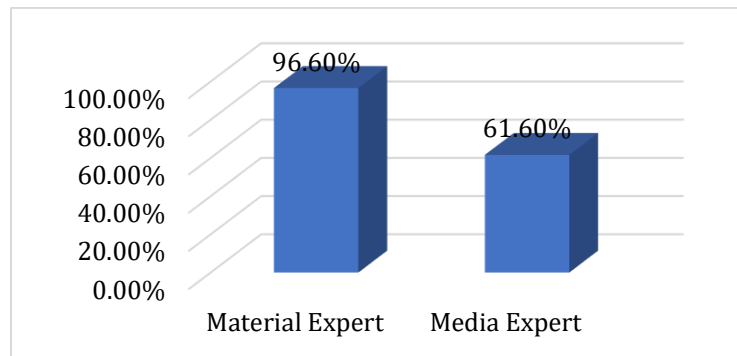


Fig. 2. Expert validation results

Adaptation of materials according to the students' characteristics was also a significant factor in the development of the learning media. The difficulty of the material could not be too high to cause a great cognitive load and not too low to fail to provide sufficient challenges for the students. In this instance, using the intermediate level of language and simple sentence structures prove that the comic was developed with an appropriate target audience. Moreover, putting the text within the narrative context helped the students understand the language through the situation provided in the comic rather than focusing on the isolated words and their translation. Thus, students were given the opportunity to associate the words and sentence constructions with the situations, helping them remember the new words in the context of the story.

The application of comics in teaching could also be advantageous in terms of presenting information. The combination of verbal and visual texts provides a more comprehensive view of the information to be learned (Damopolii & Nunaki, 2016). In particular, when students read the texts presented in the comic, the illustrative accompaniment serves as a hint at the meaning of the words or phrases. This is an essential element in the teaching of reading comprehension as students more often than not encounter unfamiliar words or structures in the reading texts. With the help of illustrative clues, students could guess the meaning of the unknown words or phrases based on the context of the situation illustrated in the comic. Therefore, students did not have to rely only on their knowledge of vocabulary to understand the meaning of the words but could also use the visual aids. The results describing the validity of the comic as a teaching medium were also consistent with the idea of combining verbal and visual materials for the purposes of teaching reading comprehension. Consistent use of color, contrast, characters, settings, and illustrations serves not merely a decorative purpose but contributes to readability and message comprehension. Illustrations that align with the text help students link linguistic information with visual representations, while character and background consistency makes the storyline easier to follow. Thus, the visual design of the developed comic serves a pedagogical function by supporting the processes of text interpretation and meaning-making.

In addition to being validated by experts, the comic elicited a positive response from students. They responded favorably to the alignment of the material with the comic's content, the quality of the language, the visual appeal, the text readability, and the logical, engaging storyline. These responses demonstrate that the comic successfully fulfills two vital educational functions: the instructional function and the motivational function. From

an instructional perspective, the comic provides material that students can use to practice comprehending English text. From a motivational perspective, the elements of imagery, characterization, and storytelling make the reading process more engaging than conventional text-based presentations.



Fig. 3. The comic product developed

Table 4. Practicality test

Aspect	Small-group test	Large-group test
Story appeal	92.00	89.57
Clarity of language	72.00	80.87
Alignment of images and text	88.00	93.04
Moral value	96.00	97.39
Learning motivation	100.00	86.96
Educational utility	96.00	86.96
Average	90.67	89.13

In the small-group trial, the learning motivation aspect achieved the highest score at 100%, followed by moral values and instructional utility, both reaching 96% (Table 4). This indicates that, during the initial stage of use, the comic was highly effective at capturing students' attention and boosting motivation, while also being perceived as beneficial for learning. However, language clarity received the lowest score (72%), making it the aspect most in need of improvement. In the large-group trial, improvements were observed in several areas. The score for moral values rose from 96% to 97.39%, while the alignment between images and text improved from 88% to 93.04%. The most notable improvement occurred in language clarity, which increased from 72% to 80.87%. This suggests that, following revisions or use with a larger group, the language within the comic became easier for students to understand. Story appeal remained in the "excellent" category, despite a slight decline from 92% to 89.57%.

Conversely, the scores for learning motivation and instructional utility dropped from 100% and 96% to 86.96% for both categories. This decline does not imply that the comic is impractical; rather, it may reflect differing student responses when the material is used with a larger group. In small groups, student attention and engagement tend to be more focused, whereas in large groups, responses are more varied. Overall, the results of both trials demonstrate that the comic is practical for use as a learning medium. Average scores of

90.67% (small group) and 89.13% (large group) indicate a consistently high level of practicality across both trial scales. Improvements in language clarity, image-text alignment, and moral values suggest that the comic possesses effective presentation components. Meanwhile, the decline observed in aspects of learning motivation and the perceived utility of the instruction serves as a basis for further refinement—specifically regarding the enhancement of student engagement and the strengthening of the link between the comics and learning activities. Thus, the comics can be considered highly practical and suitable for use in instruction, particularly as a supporting medium for English reading comprehension.

Table 5. Teacher responses

Aspects Evaluated	Indicators	Score
Suitability of Material	The comic's content is relevant to high school English learning topics (reading comprehension, vocabulary, moral values)	80
Language Quality	The English language used is appropriate for the students' proficiency level and is communicative	80
Educational Value	The comic instills positive values (cooperation, responsibility, environmental awareness)	100
Creativity and Visual Appeal	Illustrations, colors, and character expressions are engaging and aid comprehension	100
Integration of Story and Learning Objectives	The storyline is logical, easy to follow, and aligned with basic competencies	80
Readability	The text is easy to read, with clear font size and layout	100
Suitability as a Learning Medium	The comic is suitable for use in high school English classes	100
Average		91.43

Based on the data collected from teachers' responses to using comics media in English instruction, an average score of 91.43 was achieved (Table 5). Generally, the comic media was responded to highly and was considered applicable to be implemented in the high school English class. The content of the comics media was relevant to the syllabus, especially in terms of reading comprehension, building vocabulary, and moral values. The language used was communicative enough and appropriate for the participants' level of proficiency. The comics were also found to be informative in terms of values, namely, cooperation, responsibility, and environmental values. Visually, the funny illustrations, colors, and facial expression of the characters were rated as engaging and could support the students in understanding the content and being motivated in the learning process. The storyline was logical and could lead the learners to achieve the expected learning objectives and was easy to understand. The comic media is therefore regarded as engaging, informative, easy to use, and could be utilized suitably in a high school English class to support the process of learning English.

The aspects of visual appearance and the logical storyline are two main points that should be highlighted. Through this medium, student interest in the learning process can be aroused. Applying comics in language classrooms can improve student motivation and engagement since visual and storyline aspects can attract the students' attention (Damanik

& Harianja, 2022; Damopolii et al., 2022). The attractiveness of the media can arouse the learners' willingness to follow the instructional procedure and focus more on the content to be learned. In terms of reading comprehension instruction, the improvement of students' comprehension depends on how long the learners' attention can be drawn to the text, how they process information, how they understand the relations between sentences, and how they comprehend the development of the ideas and the whole text in general. Therefore, it can be said that the positive response to the visual aspect and storyline of the comics media used could lead to the enhancement of students' reading comprehension through the increased motivation and engagement in the learning process.

The students also responded positively to the idea that the comics media could be used as the carrier of educational values, namely, cooperation, responsibility, and environmental values. The insertion of educational values into the story content makes the language learning process more meaningful. The learners not only concentrate on the language items but also try to get the message of the story or the values intended by the author in the comics media. The use of the comics media is therefore expected to be able to provide a platform for contextual language learning, in which the language learning process is combined with values relevant to students' life.

Table 6. N-gain calculation results

Statistics	Pretest	Posttest	Gain
Number of Students	71	71	71
Mean Score	67.14	86.06	18.92
Minimum Score	40	69	18
Maximum Score	79	100	31
Average N-Gain			0.58 (moderate)

Based on the increase of average scores, the moderate N-Gain category, and the increase of students' minimum and maximum scores, it can be concluded that the developed comics-based medium is effective for the process of learning and teaching English (Table 6). The medium is considered to be able to improve significantly the students' reading comprehension and help the students to enjoy the process of learning English.

The effectiveness test results in this study revealed that the use of comics in teaching English improved students' reading comprehension, although it was moderate. Comics can be a good tool for improving conceptual understanding and learner engagement since information is presented using a combination of the narrative and visuals (Damopolii, 2025; Werimon et al., 2017). This study's results can be used as evidence that comics can be an effective tool for teaching English to students. However, the moderate improvement of text comprehension indicates that the choice of the instructional medium was not the only meaningful factor affecting the outcome. There are several factors related to reading proficiency, including the achievement of learners in terms of vocabulary, background knowledge, proficiency in language structures, reading strategies, motivation, and practice frequency. The use of comics for the purpose of English teaching can be associated with enhanced meaning construction and increased engagement in the activities designed by the teacher (Rokhayani & Utari, 2014). Therefore, it may be concluded that comics are a useful

component of the instructions to support learners in improving their reading abilities but cannot be considered as the sole method of reading instructions.

Thus, the main value of the developed comics in this study is that it combines linguistic, narrative, and visual modes of information presentation. The integration of visual and textual cues during the comprehension of the text is beneficial for learning English since both modes of presentation complement each other, facilitating the meaning construction (Al-Muttairi, & Al-Alusi, 2025). The use of such reading material as comics helps to present linguistic information in a more vivid way, providing learners with additional clues that facilitate the process of understanding the reading comprehension task. Additionally, the use of comics helps to avoid the perception of reading tasks as text-only exercises, which can be boring and demotivating for students. As a result, the implementation of this type of learning materials can lead to a significant increase in the level of engagement and motivation since the students receive the linguistic information gradually together with the narrative and visuals. Additionally, when interpreting the language structures embedded in the language, the students can rely on the provided visual aid, which helps them to identify the meaning of the words and phrases within the given context.

The main value of the developed comics in this study is that it is not only entertaining but also informative since the purpose of the developed tool is to provide students with the basic vocabulary words and structures in English within the context of the narrative. This way, the students have a better opportunity to construct the meaning and establish the connections between the linguistic features and the idea of the text. According to Radan (2017), comics are a multimodal text type which combines language and image to create meaning. In this way, the use of comics for English teaching can be beneficial for the students in terms of comprehension.

CONCLUSION

The research findings demonstrate consistency across product quality, student acceptance, and the effectiveness of using the comics. Expert validation confirms that the comics meet suitability standards regarding both content and media. Positive student feedback indicates that the product is acceptable, engaging, and practical for English language learning. Meanwhile, effectiveness tests show an improvement in reading comprehension following the use of the comics. The consistency of these results suggests that the developed comics possess adequate quality as an English learning medium for Grade 10 students. Although this study focused on Grade 10, the comics are designed to remain relevant for all high school grade levels. For Grade 11 and 12 students, the comics can serve as a reflective tool to enhance their understanding of more complex and in-depth English texts. For Grade 10 students, they provide a stronger foundation for developing critical and analytical reading skills. However, the moderate level of effectiveness observed indicates that the use of comics still needs to be integrated with a systematic instructional approach. Future development could consider incorporating pre-reading, while-reading, and post-reading activities to further optimize the comics' function as a reading instruction medium.

REFERENCES

Abdussafa, A., Karim, S. A., Matas, G., & Radjaban, R. Y. (2026). Enhancing Vocational High

- School Students' English-Speaking Skills Through Comic Strips. *Journey: Journal of English Language and Pedagogy*, 9(1), 51-67. <https://doi.org/10.33503/journey.v9i1.2967>
- Aini, R. (2024). Students' Abilities and Difficulties in Comprehending English Reading Texts at Second Grade Students' of SMA Negeri 1 Sakra Timur. *Educatoria : Jurnal Ilmiah Ilmu Pendidikan*, 4(2), 60-78. <https://doi.org/10.36312/educatoria.v4i2.260>
- Al-Muttairi, F. Z. S., & Al-Alusi, A. H. S. H. (2025). Multimodal Communication in ESL Learning: Examining the Integration of Visual, Auditory, and Textual Elements in Digital Media with a Focus On Quality Education (SDG 4). *Journal of Lifestyle and SDGs Review*, 5(3), e04773. <https://doi.org/10.47172/2965-730X.SDGsReview.v5.n03.pe04773>
- Arief, Z., Mujahidin, E., & Hartono, R. (2022). The Effect of Digital Comic Media on East Asian Students' English Language Learning Outcomes. *International Journal of Society, Culture and Language*, 10(3), 117-124. <https://doi.org/10.22034/ijsc.2022.551349.2604>
- Azizah, R., & Hamid, S. F. (2022). The Effectiveness of Comic Strip in Improving Students Vocabulary and Reading Comprehension. *Journal of English Language Teaching, Linguistics, and Literature Studies*, 2(1), 219-230. <https://doi.org/10.30984/jeltis.v2i1.1941>
- Badeo, J. M., & Koc, B. C. U. O. K. (2021). Use of Comic-based Learning Module in Mechanics in Enhancing Students' Conceptual Understanding and Motivation. *Science Education International*, 32(2), 131-136. <https://icaseonline.net/journal/index.php/sei/article/view/291>
- Baga, S., Aqil, D. I., & Rosaline, M. M. (2022). Caricatures and comics based on gender towards concept understanding: A learning media on environmental pollution. *Biosfer*, 15(1), 134-146. <https://doi.org/10.21009/biosferjpb.25318>
- Barchín, L. M. (2026). Using Comics in the English Classroom: A Didactic Tool for Enhancing Reading and Writing Skills. *Journal of Literary Education*, (10), 35-50. <https://doi.org/10.7203/JLE.10.31384>
- Bozkurt, O. (2023). The effect of using educational comics in science class on hidden attitude, motivation and academic achievement. *International Journal of Education Technology and Scientific Researches*, 8(23), 1301-1328. <https://doi.org/10.35826/ijetsar.611>
- Br Kembaren, D. P., Mahayanti, N. W. S., & Adnyayanti, N. L. P. E. (2026). The Use of Digital Comics for Improving Reading Comprehension in English as a Foreign Language: A Systematic Review. *Journal of English Language and Education*, 11(2), 1124-1132. <https://doi.org/10.31004/jele.v11i2.2283>
- Clark, E. E. (2017). Are Comics Effective Materials For Teaching ELLS? A Literature Review On Graphic Media For L2 Instruction. *IJAEDU- International E-Journal of Advances in Education*, 3(8), 298-309. <https://doi.org/10.18768/ijaedu.336260>
- Damanik, I. J., & Harianja, G. S. (2022). The Effect Of Comic Books To Improve Reading Comprehension Ability At Grade VIII At SMP N 12 Pematangsiantar. *Bilingual : Jurnal Pendidikan Bahasa Inggris*, 4(1), 49-53. <https://doi.org/10.36985/ekj7sj37>
- Damopolii, I. (2025). Student Motivation in Biology Learning Using Augmented Reality and Comics. *Report of Biological Education*, 6(2), 76-86.

- <https://doi.org/10.37150/11vdyg02>
- Damopolii, I., Febrianto Paiki, F., & Hendriek Nunaki, J. (2022). The Development of Comic Book as Marker of Augmented Reality to Raise Students' Critical Thinking. *TEM Journal*, 11(1), 348–355. <https://doi.org/10.18421/TEM111-44>
- Damopolii, I., & Nunaki, J. H. (2016). Pengembangan media pembelajaran komik IPA terpadu materi sistem pencernaan pada manusia. *Pancaran Pendidikan*, 5(3), 61–70. <https://jurnal.unej.ac.id/index.php/pancaran/article/view/4052>
- Damopolii, I., Paiki, F. F., Fauzi, I., & Nunaki, J. H. (2022). Online learning supported by digital comics: The effect on students' critical thinking skills during COVID-19. *AIP Conference Proceedings*, 2468(1). <https://doi.org/https://doi.org/10.1063/5.0102520>
- Dianti, S. R., Hidayat, H., & Gaffar, M. A. (2026). The effect of grammar translation method and text-based instruction on students' vocabulary knowledge. *Journal of Research in Instructional*, 6(1), 17–29. <https://doi.org/10.30862/jri.v6i1.814>
- EF English Proficiency Index. (2023). *Indeks Kecakapan Bahasa Inggris: EF Peringkat 113 negara dan wilayah menurut kecakapan berbahasa Inggris*. Education First (EF). <https://www.ef.com/assetscdn/WIBlwq6RdJvcD9bc8RMd/cefcom-epi-site/reports/2023/ef-epi-2023-indonesian.pdf>
- Fahmi, M., Maharani, M., & Harahap, T. R. (2025). Enhancing Students' Reading Comprehension of Recount Texts through Comic Strips: A Classroom Action Research at SMP Negeri 4 Padangsidempuan. *ETANIC Journal Of English Language Teaching And Applied Linguistics*, 3(1), 78–88. <https://doi.org/10.55266/journaletanic.v3i1.521>
- Faudi, F., Husain, B., & Musthafa, B. (2023). Practice and barriers of technology integrated pedagogy in teaching EFL young learners: A critical analysis. *Journal of Research in Instructional*, 3(2), 185–195. <https://doi.org/10.30862/jri.v3i2.251>
- Ghafar, Z. N., Hazaymeh, O. M.-A. A., Sarkingobir, Y., Dikko, A. M., Aprianoto, A., Amrullah, A., & Wajdi, M. (2026). Comic reading as a tool for improving mental health and English language proficiency. *Journal of Education, Social & Communication Studies*, 3(3), 172–186. <https://doi.org/10.71028/jescs.v3i3.110>
- Girsang, S. E., & Rini, M. (2021). Improving the students' reading comprehension by using comic strips at SMA Muhammadiyah-7 Serbelawan Grade XI. *Bilingual: Jurnal Pendidikan Bahasa Inggris*, 3(1), 9–20. <https://doi.org/10.36985/1dsw8a57>
- Haq, A., Maulina, M., Rahim, T. R., Halim, A., & Villafior, M. R. D. (2026). A contextual digital comic-based approach (DCBA) for enhancing multimodal literacy in a rural EFL context. *Tell: Teaching of English Language and Literature Journal*, 14(1). <https://doi.org/10.30651/tell.v14i1.30981>
- Liu, J. (2004a). Effects of Comic Strips on L2 Learners' Reading Comprehension. *TESOL Quarterly*, 38(2), 225. <https://doi.org/10.2307/3588379>
- Merc, A. (2013). The Effect of Comic Strips on Efl Reading Comprehension. *International Journal on New Trends in Education and Their Implications*, 4(1), 54–64. <https://ijonte.elapublishing.net/makale/6242>
- Musahrain, M., Suryani, N., & Suharno, S. (2018). Analisis Kemampuan Membaca Siswa Pada Pembelajaran Reading Comprehension. *Teknodika*, 16(2), 30–36. <https://doi.org/10.20961/teknodika.v16i2.34776>

- Nasir, N. I. R. F., Mahanal, S., Ekawati, R., Damopolii, I., Supriyono, S., & Rahayuningsih, S. (2024). Primary school students' knowledge about animal life cycle material: The survey study. *Journal of Research in Instructional*, 4(1), 253–262. <https://doi.org/https://doi.org/10.30862/jri.v4i1.320>
- Ota, M. K., Banda, Y. M., Sama, G., & Kara, Y. M. D. (2023). Student's perception towards using Quizizz as an online evaluation medium of English learning. *Journal of Research in Instructional*, 3(2), 147–156. <https://doi.org/10.30862/jri.v3i2.248>
- Purnama, T. R., Subroto, G., & Murni, D. (2023). The Effect of Comic Strips towards Students' Reading Comprehension. *Journal of Language, Literature, and English Teaching (JULIET)*, 4(1), 31–38. <https://doi.org/10.31629/juliet.v4i1.4815>
- Radan, R. (2017). Visual Discourse of Comics in English Language Teaching. *Journal of English Language Teaching and Linguistics*, 2(2), 135–155. <https://doi.org/10.21462/jeltl.v2i2.52>
- Rokhayani, A., & Utari, A. R. P. (2014). The use of comic strips as an english teaching media for junior high school students. *Language Circle: Journal of Language and Literature*, 8(2), 143–149. <https://doi.org/10.15294/lc.v8i2.3018>
- Sinambela, C., Sirait, S. H. K. N., Nasir, I. R. F., & Damopolii, I. (2021). Enhancing student achievement using the fungi learning media supported by Numbered Head Together learning. *Journal of Physics: Conference Series*, 1918(5), 052053. <https://doi.org/10.1088/1742-6596/1918/5/052053>
- Wahyuni, S., Sudana, D., Mustafa, B., & Damayanti, I. L. (2026). English content knowledge coverage and vertical alignment: Across levels document analysis of curriculum frameworks. *Journal of Research in Instructional*, 6(1), 336–354. <https://doi.org/10.30862/jri.v6i1.30>
- Waruwu, O. (2024). Increasing Students' Reading Comprehension Ability On Descriptive Text By Using Language Experience Approach At The Tenth Grade Of SMA Negeri 1 Lahomi. *Ndrumi: Jurnal Ilmu Pendidikan Dan Humaniora*, 7(2), 16–26. <https://doi.org/10.57094/ndrumi.v7i2.2219>
- Werimon, S., Damopolii, I., & Nunaki, J. H. (2017). Pengaruh model pembelajaran stad dipadu media pembelajaran komik materi sistem pencernaan manusia terhadap hasil belajar siswa. *Jurnal Eksakta Pendidikan*, 1(2), 33–40. <https://doi.org/10.24036/jep.v1i2.52>
- Wicaksono, D. D., & Hartatik, S. F. (2023). The Students' Views on The Use of Comic In Teaching And Learning English. *Journey: Journal of English Language and Pedagogy*, 6(2), 521–528. <https://doi.org/10.33503/journey.v6i2.695>