



## Development of Educational Comics Based on A Restorative Approach to Handle Bullying Behavior in Elementary Schools

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### Abstract

*The type of research is research and development. This type of research uses the Four-D model has the stages of Define, Design, Develop, and Disseminate. This research was conducted at SD IT Izzatul Islam. The study was conducted in April to June the academic year 2024/2025. The subjects in this study were grade IV students, totaling 28 people, consisting of 16 male students and 12 female students. The object in this study is an educational comic based on a restorative approach. Data collection techniques are observation, questionnaire, and test. Data analysis used quantitative and qualitative. This research uses a Likert scale that is 1 not good, 2 quite, 3 good, 4 very good. Based on the results of the feasibility test conducted by media experts and material experts, it can be seen that the results of validation carried out by media experts with a percentage of 94.80% are included in the very feasible category, and the validation results of material experts with a percentage of 89.95% include a very decent category. Based on the pretest and posttest tests that have been carried out, it can be concluded that educational comics based on restorative approaches that are developed effectively in increasing the awareness and ability of elementary school students in dealing with bullying behavior are more empathized, reflective, and responsible. Based on the description above, it can be concluded that educational comics are based on a decent and effective restorative approach to SD ITI Izzatul Islam.*

**Keywords:** educational comics, approaches, restorative, behavior, bullying



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### Introduction

The problem of bullying in elementary schools is a growing issue and requires serious attention. Bullying occurs not only in physical forms such as hitting or pushing, but can also take the form of verbal teasing, insults, and even social exclusion. Children who are victims of bullying are at risk of experiencing low self-confidence, difficulty socializing, and even emotional disorders that can persist into adulthood (Siddique et al., 2023).

During elementary school, children are developing their identity and social skills. When they experience or witness bullying, it can lead to imbalances in their development, both emotionally and in interpersonal relationships. Therefore, schools, as

the first social environment after the family, must foster a safe and supportive ecosystem (Hoang et al., 2024).

Based on observations conducted by researchers at Izzatul Islam Islamic Elementary School, deviant behavior was found among students, such as teasing friends with disabilities, refusing to participate in group play, and dominating behavior by certain students. Teachers admitted to having reprimanded students who engaged in these behaviors several times, but the behavior continued to recur in different forms. Teachers also stated that students tended to be unable to understand the impact of their actions on others' feelings. The class teacher revealed that the current approach to dealing with bullying remains repressive, involving punishment or warnings to the perpetrator. While this approach can temporarily alleviate the problem, it fails to address the root of the issue. The teacher emphasized the need for learning media that can help students understand conflict from multiple perspectives and build emotional awareness so that students will improve their behavior based on understanding, not simply fear of punishment.

One solution to address the above is to develop educational comics. Educational comics are a learning tool that combines images and visual storytelling to convey educational material or messages in an engaging and easy-to-understand way, especially for children (Senturk & Simsek, 2021). By using simple illustrations and stories, educational comics are designed to make it easier for students to grasp certain concepts or values in a fun way, making the learning process more effective and less boring. One of the unique features of this type of comic is that in addition to the story and narrative content of typical comics, educational comics also contain educational and informational content related to the subject matter being taught, making them suitable for use as learning media (Ilyana & Sari, 2015). Educational comics combine visual storytelling and narrative that are close to the world of children. Comics have the ability to convey moral and social messages indirectly, while still effectively touching students' affective and cognitive aspects (Helsby, 1999).

Educational comics based on a restorative approach can present simple conflict scenarios that frequently occur in schools, along with a dialogue and solution-oriented resolution process. The characters in the story can depict the behavior of perpetrators, victims, and other parties involved, and demonstrate how conflicts can be resolved

without violence or revenge (Galtung, 2001). In this way, students will more easily understand values such as responsibility, forgiveness, and repairing relationships.

This approach allows the perpetrator to recognize their mistakes and their impact, and provides space for the victim to express their feelings. This approach also reinforces the values of responsibility, empathy, and mutual respect, which are crucial for developing students' character from an early age (Jia et al., 2025). In order for this restorative approach to be easily understood and implemented by elementary school students, learning media are needed that are able to explain the concept in a simple and fun way (Hopkins, 2023).

The development of restorative-based educational comics is expected to assist teachers in delivering character education materials in a more engaging and applicable manner. Restorative-based educational comics can also serve as a reflection tool for students, as they can see situations similar to their own experiences in the form of illustrated stories. This encourages deeper emotional engagement in students and builds self-awareness to avoid actions that harm others (Rubab et al., 2024).

Based on the above explanation, it is crucial to conduct this research with the aim of developing educational comic media based on a restorative approach as a learning tool for addressing bullying behavior in elementary schools. Through this research, it is hoped that the resulting media will not only be informative but also foster empathy, strengthen social values, and create a more peaceful and inclusive school environment.

## **Method**

This research employs a Research and Development (R&D) approach, adapting Thiagarajan's (1974) four-stage model: Define, Design, Develop, and Disseminate. The study was conducted at SD IT Izzatul Islam from April to June of the 2024/2025 academic year. The subjects were 28 fourth-grade students, comprising 16 males and 12 females. The object of this study was an educational comic based on a restorative approach.

### ***Define Phase***

In the Define phase, a series of comprehensive analyses were conducted to understand the research needs and context. This began with an initial analysis, which included an in-depth literature review on bullying in elementary schools and the relevance of a restorative approach, alongside a study of the curriculum, character

values, and the reinforcement of the Pancasila Student Profile. Subsequently, student analysis was performed to identify the characteristics of fourth-grade students as potential comic users, including their age, comprehension level, and learning style. Task analysis then focused on determining the basic competencies and character values to be instilled, while also identifying common forms of bullying behavior prevalent in elementary school environments. Finally, a needs analysis was carried out through initial observations and interviews/questionnaires with teachers and students to ascertain the severity of bullying, the required learning media, and their understanding of the restorative approach.

### *Design Phase*

The Design phase involved the creation of the product and research instruments. This process commenced with preparing product specifications, wherein the comic theme was determined (e.g., empathy, peace, responsibility), followed by the development of the storyline, characters, dialogue, and conflicts relevant to school bullying cases. Next, the comic visual design was created by sketching initial images, determining an appropriate illustration style (child-friendly, educational), and designing the page layout with text and image combinations. Concurrently, instrument design was developed, encompassing comic validity assessment instruments (to be reviewed by media experts, material experts, and teachers), as well as questionnaires, observation sheets, and comprehension tests for the trial phase. All designs were then integrated into the creation of a storyboard, which drafted the comic story as a sequence of panels to ensure a coherent visual and narrative flow.

### *Develop Phase*

In the Develop phase, the product underwent iterative development and evaluation. This began with initial product development, where the first version of the comic was created based on the established design, including the application of illustrations, coloring, text, and the final layout. This initial product then underwent expert validation: material experts assessed the educational content and restorative approaches, media experts evaluated visual aspects and suitability for children, and teachers provided input from a pedagogical perspective and classroom usability. Following this, a limited trial was conducted involving a small number of students (approximately 6–10 students) to read and respond to the comics through observations,

interviews, and comprehension tests. Based on the results of the validation and limited trial, product revisions were made to refine the content, language, or visuals. This phase concluded with a field trial, where the product was tested with the entire class to measure the comic's effectiveness in addressing bullying behavior through pretest-posttest methodology, observations, and questionnaires.

### ***Disseminate Phase***

The Disseminate phase focused on the finalization and distribution of the product. In this stage, the revised results from the development phase were consolidated to produce the final version of the comic, available in both print and digital formats. The product was then provided to elementary schools, accompanied by the development of a comic usage guide for teachers. Furthermore, short training sessions were provided to teachers on how to utilize the comics as a medium for character education, ensuring effective adoption and implementation within the school environment.

### ***Data Collection***

Data collection techniques in this study included observations, questionnaires, and tests. Observations were conducted to identify direct forms of bullying behavior, determine the effectiveness of the educational comics in influencing student behavior, and observe restorative processes (such as apologies, empathy, and dialogue) in student interactions. Questionnaires aimed to explore student, teacher, or parent responses to the comic content and restorative approaches, measure changes in student attitudes or awareness before and after the intervention, and gather feedback for further comic development. Tests were administered to assess the increase in student understanding and knowledge after using the educational comics, measure the comics' effectiveness as a learning medium in a social and emotional context, and observe students' cognitive changes related to bullying issues and restorative values. After the data was collected, it was analyzed using quantitative and qualitative methods. For quantitative data, this study used a Likert scale with four categories: 1 (not good), 2 (sufficient), 3 (good), and 4 (very good).

## **Results and Discussion**

### ***Result***

This study aims to develop an educational comic based on a restorative approach as a means to address bullying behavior in elementary schools. The development

process was carried out using the four-D model, which consists of the following stages: define, design, develop, and disseminate. The research results are described based on each stage as follows.

#### *Define*

In the define stage, information was collected through observations and interviews at an elementary school. Based on the observations, it was discovered that several students experienced bullying, both verbal and social, such as teasing and exclusion within groups. Teachers acknowledged that the conflict resolution approach used so far was not fully effective because it still focused on punishment and did not encourage reflection and restoration of relationships between students. Therefore, learning media are needed that can convey moral messages in a fun way and build social awareness, especially through visual stories that are close to the world of children.

#### *Design*

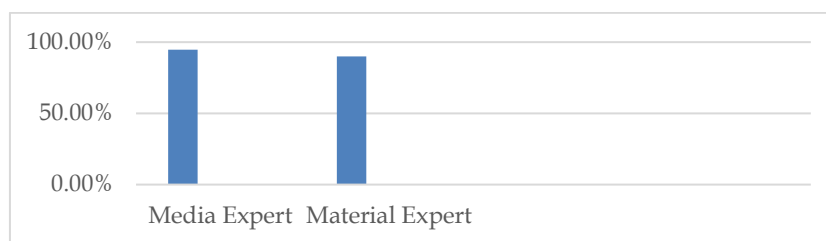
After identifying the problems and needs, the researchers began developing an initial design for the educational comic. The comic's content was designed to reflect real-life situations relevant to elementary school students, such as peer conflict, teasing, and resolution through dialogue. The storyline was designed to incorporate restorative values, such as admitting mistakes, listening to each other, and improving relationships. The comic script also prioritized the use of language appropriate to the students' level of understanding, while the illustrations were designed to be engaging and communicative, appropriate for the age characteristics of elementary school children.

#### *Develop*

At this stage, the designed comic product was developed and validated by two experts: a material expert and a media expert. Validation was conducted to assess the appropriateness of the content, language, visual presentation, and the appropriateness of the restorative approach to the story. A summary of the validation results conducted by the experts can be seen in the following table 1.

**Table 1** Summary of Validation Results

No	Expert	Percentage	Category
1	Media Expert	94.80%	Very worthy
2	Subject Matter Expert	89.95%	Very worthy



**Figure 1** Recapitulation of Validation Results

Based on the results of table 1 and figure 1 above, it can be seen that the validation results carried out by media experts with a percentage of 94.80% are included in the very feasible category, and the validation results by material experts with a percentage of 89.95% are included in the very feasible category. The validation results show that the restorative-based educational comic is very feasible to use with several minor revisions, such as simplifying the narrative and adjusting the illustrations in several parts. After being revised, the comic was tested on a limited basis with fourth-grade students. Based on student and teacher responses, the comic media was considered interesting, easy to understand, and able to help students understand how to resolve conflicts peacefully and empathetically.

The product developed, an educational comic based on a restorative approach, was implemented in the classroom. The subjects used were 28 fourth-grade students. The fourth grade students then underwent a pretest and posttest. The pretest was conducted to determine the students' level of understanding in handling bullying behavior, and the posttest was conducted to determine the students' level of understanding and also served as the final test to determine the level of students' handling of bullying behavior. The summary results of the pretest and posttest scores for handling bullying behavior can be seen in the following table 2.

**Table 2** Summary Results of Pretest and Posttest Scores

Educational Comics Based on A Restorative Approach	Pretest	Posttest
	62.1	84.7

Based on Table 2 above, it is known that the average pretest score of students before using educational comics based on a restorative approach was 62.1, while the average posttest score after using the media increased to 84.7. This increase of 22.6 points indicates a significant positive change in students' understanding of bullying material and how to handle it through a restorative approach. The results of the t-test that has been conducted can be seen in the following table 3.

**Table 3. T-Test Results**

<b>Partner</b>	<b>Average</b>	<b>t</b>	<b>df</b>	<b>Sig.</b>
Pretest-posttest	22.6	8,754	29	0,000

From Table 3 above, since the p-value is  $<0.05$ , it can be concluded that there is a significant difference between students' pretest and posttest results. This means that educational comics based on a restorative approach are effective in increasing students' understanding of bullying and how to handle it.

Thus, it can be concluded that the educational comic developed based on a restorative approach is effective in increasing elementary school students' awareness and ability to handle bullying behavior more empathetically, reflectively, and responsibly. Educational comics based on a restorative approach have also proven effective in conveying character education messages in an engaging and easily understood manner.

#### *Disseminate*

In the dissemination phase, the restorative educational comics that had been developed were disseminated within a limited scope to several teachers and students at partner schools to obtain additional input. The feedback obtained indicated that the restorative educational comics were considered innovative and effective in supporting character learning, particularly in building awareness about the importance of resolving social conflicts with a non-violent approach. Students also showed high interest in the restorative educational comics because the stories were close to their daily experiences at school. Based on these results, the restorative educational comics were deemed suitable for use in social-emotional learning at the elementary school level more broadly.

#### *Discussion*

This research shows that developing educational comics based on a restorative approach has great potential in helping address bullying behavior in elementary schools. Comics, as a visual and narrative medium, provide a more engaging and easily understood way of conveying messages to students, so that material on bullying and how to resolve it is not only informative but also touches on their emotional and social aspects. This finding is supported by Lin & Chanh (2021), who stated that this is important because elementary school students tend to be more responsive to visual and narrative media than to conventional learning methods.



The restorative approach integrated into comics enables students to understand the importance of repairing social relationships damaged by bullying, rather than solely focusing on punishing the perpetrator (Dyson et al., 2022). The stories and illustrations in the comics depict the process of dialogue, acknowledgment of mistakes, and recovery efforts, which are at the heart of the restorative approach. According to Tech & Theophilos (2022), students not only learn to recognize forms of bullying but are also encouraged to empathize, take responsibility, and seek joint solutions that can restore harmony in the school environment.

The results of the trial showed that this restorative-based educational comic was quite effective in increasing students' understanding of bullying and restorative approaches to resolving it. Students appeared more engaged and motivated to discuss their experiences and how to address conflicts without violence (Aron et al., 2022). Teachers also reported that the use of this comic helped create a more positive classroom atmosphere and increased social awareness among students (Pazaer & Assaiqeli, 2023).

The development of this educational comic still requires refinement, particularly in terms of language and illustrations to better suit the age and cultural characteristics of students. Furthermore, larger-scale trials are needed to determine the medium's long-term effectiveness and its ability to consistently shape student attitudes and behavior.

Overall, the development of this restorative-based educational comic can be an innovative and effective alternative in preventing and addressing bullying in elementary schools. By providing a deeper understanding and humane solutions, this medium supports the creation of a safe and comfortable school environment and fosters positive character development in children.

## **Conclusion**

Based on the results of the feasibility test conducted by media experts and material experts, it can be seen that the validation results conducted by media experts with a percentage of 94.80% are included in the very feasible category, and the validation results of material experts with a percentage of 89.95% are included in the very feasible category. Based on the pretest and posttest tests that have been carried out, it can be concluded that the educational comics based on the restorative approach developed are effective in increasing the awareness and ability of elementary school students in handling bullying behavior more empathetically, reflectively, and responsibly. Based on

the description above, it can be concluded that educational comics based on the restorative approach are feasible and effective for use in SD IT Izzatul Islam.

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