Digital Comics: Character Value-Based Learning Media in the Ramayana Puppet Story Content Social Studies Elementary School

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Abstract

The lack of variations in the teacher's digital learning media that are under the characteristics of teaching materials and student characteristics in social studies learning has resulted in student limitations as the impact of low self-learning. This study aims to analyze digital comics' design, validity, and effectiveness. This research is a development research adapting the ADDIE development model. The subjects of this study included four experts and students. Data collection was carried out using questionnaires and learning achievement tests. Both quantitative descriptive analysis and inferential statistical analysis were used for the data analysis. The design of digital comics involved five stages, namely analysis, design, development, implementation, and evaluation. Product validity was determined according to learning content experts who obtained very good qualifications, instructional design experts who obtained good qualifications, learning media experts who obtained very good qualifications, the results of individual trials who obtained very good qualification, and the results of small group trials obtained very good qualifications. According to the findings of the study, digital comics are appropriate for use in elementary schools.

Keywords: Digital Comics, Character Values, Ramayana

1. INTRODUCTION

Education in the era of globalization is continuously experiencing a development that has brought many changes in all aspects of life. Education is everything that affects the growth, change, and condition of every human being. The change in question is the development of students' potential, such as knowledge, skills, and attitudes (Febriansyah et al., 2020; Pristiwanita et al., 2022). With education, Indonesian citizens have the provision of knowledge that can be useful in the future. This knowledge can support the creation of quality Human Resources. Education is not only the responsibility of the government but also the responsibility of the family and society. These three educational institutions' implementation mutually supports one another, allowing them to build knowledge, attitudes, and skills in accordance with educational goals (Alpian et al., 2019; Rista & Ariyanto, 2018).
Basic education is a theoretical basis which is the starting point in carrying out and developing educational practices at the basic education level, namely at the elementary school level. Elementary school is the basic foundation for forming the mentality and character of the nation's generation, which requires 9 years of education starting from basic education (Azizah et al., 2020; Khotimah, 2019; Wanabuliandari et al., 2021). Elementary school education is defined as the process of guiding, teaching, and training students aged 6-13 years to have basic intellectual, social and personal abilities that are integrated and in accordance with their developmental characteristics. In elementary school education there are many subjects taught, one of which is Social Sciences, abbreviated as IPS. IPS learning is one of the subjects that must be studied at the elementary school level. IPS is a social science subject that does not emphasize the theoretical aspects of its knowledge but rather the practical aspects of studying, analyzing, studying social phenomena and social problems (Febriani, 2021; A. Widodo et al., 2020). The social studies learning process in elementary schools does not focus solely on mastering social studies material, but instead focuses on mastering process skills that can be demonstrated in verbal form (verbal performance), attitude (attitudinal performance), and act (physical performance), or the integration between affective, cognitive and motor (Marhayani, 2017; Putra, 2021). Social studies learning have an important role in the formation of national character, because social studies learning aims to make students good citizens who care about social and environmental problems and have a high sense of nationality.

In this era of globalization, human resources in Indonesia are of relatively low quality. This can be seen in a person's ability to manage himself, such as being self-motivated, committed to something, having high self-confidence, being independent, and being able to find certain models or procedures that can be used to do certain tasks, which are hard to find in a person. Attitudes of today's students such as respect, friendliness, courtesy to teachers have decreased (Gina Amalia et al., 2022; Hidayah et al., 2020). The situation of students who are often difficult to manage and do not respond to teacher advice causes the teacher to lose control giving punishments considered to be over the line. To overcome these problems, it can be pursued by developing student character. Character education is a teaching and learning process that emphasizes the development of behavior and strengthening attitudes toward students. It is carried out entirely based on a certain value, which is the school's goal (Badawi, 2019; Hakim & Rahayu, 2019). Character education is a process for fostering value education that goes beyond simply teaching children to distinguish between right and wrong and helps them understand and retain the information so that they will later become accustomed to carrying out good deeds on a daily basis (Dharma & Siregar, 2015; Hendayani, 2019). Character education aims to develop various abilities and potentials of students in making good and bad decisions, maintaining good values and realizing them in everyday life both in the home, school and community environment (Komara, 2018; H. Widodo, 2019).

To develop a person's character, especially students, the first thing that an educator must know is to know and understand the development of students. Thus, to develop character in students, learning resources are needed that can train and develop character in students. In the learning process also requires learning media that can support and support the success of the learning process. Based on the results of observations and interviews with one of the teachers, it was found that teachers still minimally use instructional media that are in accordance with the characteristics of teaching materials and student characteristics, so that students do not get the opportunity to construct their own knowledge and hone their critical thinking skills. In addition, students rarely study with local wisdom around the school as a source of learning for character development in students.
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One of the surroundings that can be used as a source of learning in character development at SD Negeri 1 Tojan is local wisdom in the form of Kamasan wayang paintings located not far from Tojan Village, where the teacher has not utilized. Kamasan wayang paintings are works of art based on wayang stories. The theme of the Kamasan wayang paintings is the socio-cultural situation of the people in Bali, such as government, the state of society and people's beliefs. In general, Kamasan wayang paintings describe Ramayana and Mahabharata. Generally, Kamasan wayang paintings are taken from the epic Ramayana, such as during the war between Rama and Ravana, the construction of the Situband bridge, and so on. Whereas the Kamasan puppet paintings taken from the Mahabharata story are usually taken from adidarwa, wana parwa, bhima parwa and other parwa. In the learning process, the teacher can inspire the story of the Ramayana puppet story to develop student character, for example, how the character played by Rama was thrown into the forest at the request of his stepmother, namely Kekayi.

Based on the explanation above, solutions to overcome these problems in the learning process require an innovative, efficient and flexible learning media that adapts to the development of students and the current educational conditions to make learning meaningful, especially in developing student character. One way to create an effective learning climate is through the use of supportive learning media that can be accessed easily by teachers or students anywhere and anytime. Learning media is a tool used to deliver messages from the message's sender (learning resources) to the message's recipient. The learning resources referred to are teachers, print media, electronic media, and the environment to support the achievement of learning objectives (Apriansyah et al., 2020; Tafonao, 2018). Digital comics are a media in the form of stories arranged in the form of attractive cartoon sketches in which various characters are closely related to the content of the story which aims to convey information and is in a digital format so that it can be read using electronic equipment such as smartphones, laptops, LCDs, and so on. Digital comics are digital comics in digital form (PDF/EPUB) and not in physical or printed form. (Riwanto & Wulandari, 2018; Sari & Erita, 2021). Previous study state comics is a learning medium can make it easier to transfer messages to students (Khasanah et al., 2021). Besides that, by using attractive pictures and choosing bright colors, comics can attract students' interest in reading, which can equip students with fun reading skills.

This development research is in line with research showing that digital comics are very feasible to implement, this is because digital comics are learning media needed by students as a tool and have an attractive design to motivate students to learn (Pinatih & Putra, 2021; Rina et al., 2020). Subsequent relevant research which shows that digital comic media in social studies lesson content is feasible to apply. Based on the results of the feasibility of digital comic learning media in terms of the test results of experts and students with very good qualifications so that digital comic learning media is suitable for use in the learning process (Widhinata & Ganing, 2022). Other relevant research shows that it is necessary to develop digital comic media, because it refers to 21st-century learning which requires students to learn by utilizing technology. This digital comic media is used by students to learn about the history of the West National National Event through gadgets to make it easier for students in the learning process (Eva et al., 2020). In line with this, further relevant research shows that digital comic media can improve students' critical thinking skills and learning outcomes, but this research, in its development, still has several weaknesses. The weakness lies in the scale of product trials, which are only carried out on a small scale involving one school (Laksni & Suniasih, 2021).

Subsequent research has shown that digital comics designed in this study have the advantage of producing effective products to implement because they make it easier for students to study social studies subject matter of human interaction with their environment as
a strengthening of student character education in grade V elementary school (Astutik et al., 2021). The difference between this research and other research is that this research develops digital comic learning media based on character values in the Ramayana wayang story, which was not developed before. The purpose of developing this learning media is to describe the design, the validity of digital comics, and the effectiveness of digital comics.

2. METHODS

The type of research used in this research was development research using the ADDIE model, which consists of 5 stages of development namely: (1) Analysis Phase (Analyze), (2) Planning Level (Design), (3) Development Stage (Development), (4) Implementation Stage (Implementation), (5) Evaluation Stage (Evaluation). This model was chosen because the ADDIE model is often used because the stages of the ADDIE model describe a systematic approach to instructional development. The strengths of the ADDIE model include more detailed design and development steps. However, this model not only focuses on material or content but also on supporting media. The product test results of this development research were experts and students. Experts in the expert test included design experts, learning content experts, learning design experts, and learning media experts.

The product trial subject was the stage that involved potential product users reviewing the results of the simple media being developed including individual trials and small group trials. Individual test subjects were conducted to three grade IV students consisting of 1 student with a low learning achievement category, 1 student with a medium learning achievement category and 1 student with a high learning achievement category in social studies subjects. The small group trial subjects in this study used nine grade IV students consisting of 3 students with low social studies learning outcomes, 3 with moderate social studies learning outcomes and 3 with high social studies learning outcomes. Product effectiveness test was carried out to determine whether the developed product is effective or not for use in the learning process. Data were collected using pre-test and post-test of the material presented in the product being developed. Subjects for testing the effectiveness of research products for developing digital comic learning media, namely all fourth grade students consisting of students with high learning outcomes, moderate learning outcomes and low learning outcomes in social studies subjects. The type of data used in this study was quantitative data. Quantitative data in this study were assessment data related to the product being developed obtained from each questionnaire statement filled out form the responses of the test subjects on the Likert scale. Data collection methods in research used unstructured interviews, observation, and questionnaires. Data collection was carried out using instruments in the form of questionnaires and learning achievement tests. This development research used two data analysis techniques: quantitative descriptive and inferential statistical analysis. Quantitative descriptive analysis in this study was used to process qualitative data obtained through a questionnaire in the form of a score. The total percentage of answers for each respondent was calculated using a percentage formula, which was then converted into a scale 5 achievement level conversion in Table 1.

Table 1. Conversion of Achievement Level with Scale 5

<table>
<thead>
<tr>
<th>Achievement Level (%)</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>Very good</td>
</tr>
<tr>
<td>75-89</td>
<td>Good</td>
</tr>
<tr>
<td>65-74</td>
<td>Average</td>
</tr>
<tr>
<td>55-64</td>
<td>Deficient</td>
</tr>
<tr>
<td>0-54</td>
<td>Very deficient</td>
</tr>
</tbody>
</table>
3. RESULTS AND DISCUSSION

Results

The design or development process for digital comics applies the ADDIE development model. The ADDIE model is a development model consisting of five stages, namely (1) **Analyze**, (2) **Design**, (3) **Development**, (4) **Implementation**, and (5) **Evaluation**. The ADDIE development model is used because this model uses more detailed steps in design and development. This is in accordance with the opinion that the ADDIE Model in designing instructional systems uses a systems approach that divides the learning planning process into several steps, then organizes the steps into logical sequences, then uses the output of each step as input to next step (Cahyadi, 2019).

The needs analysis stage is carried out in three steps, namely learning needs analysis, analysis of basic competencies and learning indicators, and analyzing the material. Based on the results of the analysis of learning needs, it was found that teachers still minimally use learning media that are under the characteristics of teaching materials and student characteristics. In addition, the stage of determining basic competencies and learning indicators was also carried out to find out about the design and production of digital comic learning media based on character values in the Ramayana wayang story which was produced which was truly effective for application in elementary schools, which was able to teach students according to the demands of competence in learning. The stage of analyzing the material is carried out to determine the contents of the digital comics that will be developed to suit the knowledge needs of students and competency demands and the results of the analysis of the material that will be included are social and cultural diversity material in social studies content.

In the design stage, data collection was carried out, such as material on social and cultural diversity which had previously been determined in the analysis stage. After the material is collected, proceed with writing a story script. The designed comic story script must be detailed; at this stage it is also the determination of characters, characters, and the dialogue of each character. By carrying out story script writing, the comics to be compiled have a basic framework, then proceed with making sketches.

The development stage is the actual creation of digital comics, which begins with the creation of cover designs and comic contents. The cover designed on the Storyboard Website includes comic titles, character pictures, and grade IV comics. Then proceed with uploading comics, namely sending comics that have been prepared in PDF form from a personal computer to a system such as a Web server, which will then be published via the internet either privately or publicly so that it can be enjoyed by students and teachers who have an access link. After the comic is published, it is continued with the stage of making a questionnaire to test the validity of experts, product trials, and making questions pre-test and post-test to test the effectiveness of the developed media. After the process of developing digital comic learning media based on character values in the Ramayana wayang story is completed, a product feasibility test is then carried out before being used in learning activities. The feasibility of character value-based digital comics in the wayang story of Ramayana is assessed based on learning content expert tests, instructional design expert tests, instructional media expert tests, individual trials, and small group trials in detail, as shown in Table 2.

Based on Table 2, it shows that the percentage of the results of the validity of developing digital comic learning media based on character values in the Ramayana wayang story according to the assessment of expert tests and trials on students as a whole has a very good qualifying score percentage so that the digital comics that are being developed are declared very feasible to use by fourth grade students in the learning process. During the trial phase of the digital comic product, there were comments from experts who revised the digital
The implementation phase is carried out in three stages, namely beginning with pre-test or giving tests to students before using digital comic learning media. Then proceed with the stage of using digital comic media by teachers and students carried out using tools in the form of LCDs and projectors. The next is post-test carried out by giving tests to students after using digital comic learning media.

The summative evaluation stage is carried out to determine the effectiveness of the product. At this stage it is carried out by analyzing the results of the pre-test and post-test scores. The score results were analyzed using a correlated t-test to determine the effectiveness of learning using digital comic learning media. The average student pre-test score was 42.76 and the average student post-test score was 77.76. The increase in the average student score can be seen based on the students’ answers when answering the test questions given. Based on the results of the t-test obtained $t_{count} = 11.99604$ for $db = 56$ and a significance level of $5\% = 2.003$. This means $t_{count} > t_{table}$, until $H_0$ is rejected and $H_1$ is accepted. Based on the test criteria, if $H_0$ is rejected and $H_1$ is accepted, there is a significant difference (5%) before and after using digital comic learning media based on character values in the Ramayana wayang story. Thus, it can be concluded that digital comic learning media based on character values in the Ramayana wayang story is effectively applied to social and cultural diversity material.
Discussion

Based on the test results of learning content experts, instructional design experts, instructional media experts, individual trials, and small group trials, it is revealed that digital comic learning media based on character values in the wayang story Ramayana is in good and very good qualifications, so it is feasible to develop. The feasibility of the developed media is inseparable from the use of an appropriate development model. In this study, the ADDIE development model was used with 5 stages in it. The ADDIE mode stages consist of the analysis stage, the design stage, the development stage, the implementation stage, and the evaluation stage.

Based on the results of the learning content expert test, assessment related to curriculum aspects includes the suitability of the material with basic competencies, learning indicators, and learning objectives. The suitability of the content of the material with basic competencies, learning indicators, and learning objectives is a very important aspect in the development of learning media. In line with the opinion of previous study that suggests choosing media needs to consider several factors, namely learning objectives and teaching materials, student characteristics and availability of costs (Chotib, 2018). Furthermore, digital comic design and media aspects are said to be good if the images and text contained in them are easy to read.

Based on the results of the expert test, the learning design includes three aspects, namely the objective aspect, the strategy aspect, and the current aspect, accuracy and clarity. In line with opinion stated that in making comics for learning one must pay attention to the selection of images or characters used for learning purposes which is an experience and according to the level of students (Wahyuni et al., 2016). Besides, the text size requirements in comics are enlarged so that they are easier to read. Other study states that through the use of learning media students are directly and actively involved in learning and then generates students' motivation to learn so that it causes an attitude of trying to overcome various problems in the learning process (Wahyuningtyas & Sulasmono, 2020).

The results of this study align with previous study that concluded that digital comic media based on the validation test results is feasible for use in classroom learning (Qoiruni & Wicaksono, 2022). This is because this research has the advantage that the story raised contains a mandate that can invite students to do good, can increase literacy in students. The results of other studies are also in line with this research, namely research conducted by (Abdurrohim et al., 2020). It can be concluded that digital comic media is excellent to be applied in learning, because this study received positive responses directly by students. Students are more motivated to learn because the media is assumed to be very intriguing, and students can learn and read comics at the same time.

Digital comic learning media based on character values in the Ramayana puppet story is effectively used in social studies subject matter on social and cultural diversity due to several things, namely: (1) Character value-based digital comic media in the Ramayana puppet story has the advantage of being able to help students develop their character in improve one's own moral values such as obedience to God, having a spirit of tolerance towards others, being honest, caring for the environment, and so on. (2) The subject matter in digital comic media is specific to IPS content material in Theme 1 The Beauty of Togetherness in Class IV, especially on social and cultural diversity material. (3) The subject matter is set forth using simple language so that the social studies learning concepts derived from student books which are considered difficult will be more easily understood by students. (4) Digital comics follow technological developments so that this learning media is flexible and can be easily accessed by teachers and students. (5) The material is presented in the form of pictures and text, not using long sentences that are difficult for students to understand. Still, it does not reduce the meaning of the material, so students can easily understand the
material presented. (6) Character designs and other supporting images in digital comic media can increase students' interest in reading. Of course, digital comics are learning media that can make it easier to transfer messages to students. Besides that, by using attractive pictures and choosing bright colors, comics can attract students' interest in reading so that this can equip students with fun reading skills.

The implication of this research is to provide character values through the story of Ramayana, students can gain a deeper understanding of important values in life. This research can be a source of information and inspiration for social studies teachers in developing more effective and attractive learning media for students. The limitations of this study were only conducted on one group of students and one subject, so that the results of the study cannot be generalized to different groups of students and subjects. In addition, this study only uses a simple purposive sampling technique, which can affect the validity and reliability of the research results. Therefore, it is hoped that future research will be able to conduct similar research taking into account the limitations of this study.

4. CONCLUSION

The product of this research is digital comic media based on character values in the Ramayana wayang story content of social studies for fourth grade elementary school students. This digital comic learning media is suitable for social studies content learning for class IV SD. This digital comic media can pique students' interest in learning and motivate them because it helps them understand the subject matter, so it is expected to improve social studies learning outcomes. Furthermore, teachers can have a positive influence on views about technological developments that can be used to aid the learning process.

5. REFERENCES


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