Development of Digital Comic Media Flipbook with Character Content Mutual Respect at the Third-Grade Elementary School

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Abstract—This development research aims to develop flipbook digital comic media on the material of the diversity of individual characteristics in the surrounding environment in class III that is valid according to material experts, media experts and users. This study uses the Borg and Gall research model modified by Sugiyono. The results showed that the PPKN flipbook digital comic media was very valid (95%) according to material experts, (100%) according to media experts, (90.6%) according to users and (100%) according to students. So it can be concluded that the PPKN flipbook digital comic media on the material of the diversity of individual characteristics in the surrounding environment is very suitable to be used as a learning medium. The PPKN flipbook digital comic media product produced is in the form of digital comic media. This comic media contains material on the diversity of individual characteristics in the surrounding environment which is illustrated in pictures to support the story so that the story is more interesting and fosters mutual respect for students when students learn about diversity in the material and to further explore knowledge information through reading comic media activities. This digital flipbook.

Keywords—learning media, digital flipbook comics, diversity of characteristics

I. INTRODUCTION

Education as a tool for humans to get to know the environment and its true circumstances. This enables education to equip students with skills and knowledge. Pancasila education and citizenship (PPK) as the main lesson content in elementary schools in the 2013 curriculum that aims to form Indonesian people fully based on Pancasila, laws and norms that apply in society [1]. The noble and moral values in question are the behavior of students in everyday life. These daily actions are concerned with the relationship between citizens and the act of defending the state as a means for the nation to become a trustworthy person. One of the efforts made is to improve the quality of education by increasing the effectiveness of the teaching and learning process. In the teaching and learning process, teachers play an important role where the high quality of education is determined by teachers [2]. Based on this opinion, teachers are required to be creative in creating fun and interesting learning by students. This needs to be done so that students have an interest in learning. Learning media provides a good influence if used in the learning process. While the use of educational media has a positive impact, but there are still many teachers who have not utilized educational media to the fullest, especially technology-based educational media.

Comics are a unique visual communication medium that combines text and images in a creative and powerful way to convey information universally and easily understood [3]. Digital comic media VAT material topics diversity of individual characteristics in the surrounding environment can serve as an effective and independent learning medium because students can find the concept of diversity meant by or without the help of teachers. Characteristic diversity material is material that exists in environmental events, and by using comics students can have an overview of the diversity of characteristics in the surrounding environment that is packed with attractive appearances and uses light language in accordance with everyday language, equipped with elements of character characters and comic stories that stand out.

Citizenship education is a subject that focuses on forming a diverse body in terms of religion, socio-culture, language, age and ethnicity to become an intelligent, skilled, and characterful Indonesian citizen mandated by Pancasila and the 1945 Constitution. Based on an interview with one of the UPT teachers of Pandansari Education Unit 2 Tulungagung Regency, that students' understanding of learning materials taught by teachers is still not maximal. And in KD 3.3 and 4.3 about the
material diversity of individual characteristics in the surrounding environment still has little material that discusses diversity. When learning teachers use learning media in the form of package books, Lks books and learning videos (youtube). However, the existence of the covid-19 pandemic resulted in limited teachers in explaining the material. Currently learning is done online or online so that the delivery of material is considered difficult and less effective. The importance of the role of learning media in the learning process requires teachers to be able to use interesting media to motivate students in learning.

UPT Education Unit SDN Pandansari 2 also applies online learning like other schools in Tulungagung, because there is still a Covid-19 pandemic. In class III learning from being implemented using the WhataApp application. During the implementation of class III online learning, there are some difficulties occur. The results obtained that the student's understanding of the learning materials taught by teachers is still not maximal. Characteristics of students that indicate that the majority of students do not understand the material presented very much [4]. Learning media that helps students in the implementation of learning activities and media that attract students to understand that is presented with a display in the form of images and colourful [5]–[10]. Therefore, the author made efforts to develop comic media. This development aims to support the general potential of students to learn to use the senses naturally, especially the eyes. In addition to visual suppression, supported media is more developed than fun learning aids. The goal is for students to follow the lessons with passion to make it easier to remember the subjects they have learned.

II. METHOD

This research method uses development research with the modified Borg & Gall model of Sugiyono and consists of ten steps with the subject of this study being a grade III student in UPT Pandansari Education Unit 2 Tulungagung Regency. The first step of this research is the potential and problems to identify needs by conducting interview and questionnaire activities. The second step is the collection of information processed from interview results, documentation and library studies. The third step is to design the product. The fourth step is to validate the product by expert material validators, media experts and users. The fifth step is to revise the product design based on the results of validation and expert advice. The sixth step is a small-scale product trial with a one to one system. The seventh step is to revise the product based on the results of the student response questionnaire on the product trial. The step is a trial of use. The ninth step is to revise the product from the results of the student response questionnaire on the usage trial. The final step is to mass produce VAT flipbook digital comic products on material diversity of individual characteristics in the surrounding environment.

The type of data obtained in the form of quantitative data and qualitative data. Quantitative data is obtained from the results of validation questionnaires (material experts, media experts and users / teachers) and the results of the ministry questionnaire (students). Qualitative data is applied from interview results, the results of student needs, as well as general comments and advice from material experts, media experts, teachers and students. Quantitative data is analyzed with quantitative analysis techniques. Questionnaires for experts and users use likert scale scores, while the kemenarikan questionnaire uses gutman scale scores. The data is then processed using the following validation formula (Akbar, 2015).

\[ V = \frac{T_{se}}{T_{sh}} \times 100 \]

**Description:**

- \( V \) = validity of
- \( T_{se} \) = total score achieved
- \( T_{sh} \) = total expected score

The results of validation calculations linguists, material experts, media experts and user experts are interpreted using the categorization of validation results in the following Table 1.

Table 1 Based on the Table 1, it can be concluded that flipbook-based digital comic media can be said to be valid and can be used if it gets a percentage value of at least 70%. If you get a percentage score below 70% then there needs to be a major improvement or revision to the product in accordance with the advice and input of media experts, material experts and users.

<table>
<thead>
<tr>
<th>Achievement Rate (%)</th>
<th>Category</th>
<th>Test Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>85,01%-100%</td>
<td>Very Valid</td>
<td>Can be used without revision</td>
</tr>
<tr>
<td>70,01%-85,00%</td>
<td>Valid Enough</td>
<td>Can be used but need small revisions</td>
</tr>
<tr>
<td>50,01%-70,00%</td>
<td>Less Valid</td>
<td>May be used with large revisions</td>
</tr>
<tr>
<td>01,00%-50,00%</td>
<td>Invalid</td>
<td>Should not be used</td>
</tr>
</tbody>
</table>

**Source:** Akbar (2015)

III. RESULTS

The results of the research obtained are presented in the table of product validation results by material experts, media experts and teachers as follows.
<table>
<thead>
<tr>
<th>No</th>
<th>Validator</th>
<th>Percentage</th>
<th>Category</th>
<th>Validity</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Expert Material</td>
<td>80%</td>
<td>Valid</td>
<td>Enough</td>
<td>Need a small revision</td>
</tr>
<tr>
<td></td>
<td>Stage 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Expert Material</td>
<td>95%</td>
<td>Highly</td>
<td>Valid</td>
<td>Not Revised</td>
</tr>
<tr>
<td></td>
<td>Stage 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Media Expert</td>
<td>100%</td>
<td>Highly</td>
<td>Valid</td>
<td>Not Revised</td>
</tr>
<tr>
<td>4</td>
<td>Teacher Grade III</td>
<td>90.6%</td>
<td>Highly</td>
<td>Valid</td>
<td>Not Revised</td>
</tr>
<tr>
<td>5</td>
<td>Small Scale Trial</td>
<td>100%</td>
<td>Highly</td>
<td>Valid</td>
<td>Not Revised</td>
</tr>
<tr>
<td></td>
<td>Students</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>of Large-Scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the results of product validation by material experts, the feasibility of digital comic media products flipbook vat by 95%, if presented in table 1 then the results of the feasibility of product mask in entang 85.01% - 100.00% which fall into the category is very valid and can be used without revision. There are also notes given by material experts that the storyline is good but there are still slight improvements about the systematic story and related material needs to be considered. Based on the results of product validation by media experts obtained the value of the feasibility of digital comic media products flipbook vat of 100%, if presented in table 1 then the product eligibility results fall in the range of 85.00% - 100.00% which fall into the category of Very Valid and can be used without revision. There are also records provided by media experts that the product is complete and interesting and can be continued to the next stage.

Based on the results of validation by users / teachers of the feasibility of digital comic media products flipbook ppkn of 90.6% if presented in Table 1 then the product eligibility results fall into the range of 86% - 100% which fall into the category is very valid and can be used without revision. There is also a note given by media experts that increase their creativity in making learning media worthy to be implemented. Based on data on student response to product management can be known in small-scale trials and usage trials, obtained an average of 100% product quality with a very practical and very interesting category so that the product can be used without revision.

IV. DISCUSSIONS

Development of Digital Comic Media Flipbook on Material Of Individual Rusteristic Diversity In The Neighborhood In Class III can be seen on Picture 1 and 2. Validation of Flipbook Digital Comic Media on material The diversity of individual characteristics in the surrounding environment in class III includes 4 aspects of assessment, namely, assessment of aspects of content feasibility, aspects of presentation of material, aspects of media presentation, aspects of language conformity in digital comic media flipbook. Material experts validate three aspects, namely the assessment of the feasibility aspect of the content, aspects of presentation of the material, aspects of language conformity. Media experts validate aspects of media presentation, aspects of presentation of material and aspects of language conformity. Users validate 4 aspects of assessment including, assessment of aspects of content feasibility, aspects of presentation of material, aspects of media presentation, aspects of language conformity in digital comic media flipbook. Expert assessment of material reaches 95%, media experts 100% and users 90.6%. So that the average validation value of 95.2% with the category is very valid with product test decisions can be used without revision. Here is an explanation of the results of validation by experts.

![Fig. 1. Cover](image1.png)

![Fig. 2. Contents](image2.png)
include writing words in the correct Indonesian, after which punctuation used in the media is appropriate, from words in accordance with the General Guidelines for Spelling Indonesian (PUEBI), as well as from the structure of sentences that are clear and easily understood by grade III elementary school students.

In the assessment of the content aspect assessing the quality of the material with KD and the scope of the material that includes the material in accordance with the theme adjusted also with KD, for KD used, namely KD 3.3 and KD 4.3 is the basis of reference in the process of making digital comic media flipbook vat, the material used is about conversational dialogue between figures in the material diversity of individual characteristics in the surrounding environment adjusted based on KI and KD. In the aspect of presenting material about the description of the material that includes the systematic presentation of the material with the traceness of material that is easy to understand, the digital comic media flipbook vat in its manufacture certainly sees the criteria in the preparation of the material.

From these results it can be known that digital comic media flipbook required small revisions to the product to further improve the product for the better. After a small revision, the second validation was carried out on Tuesday, June 15, 2021 by getting a result of 95% when presented in table 3.8 product eligibility results entered in the range of 85.01% - 100.00%. Then the results can be known that the digital comic media flipbook vat into the category is Very Valid and can be used without any revision.

The validity of digital comic media flipbook products is validated by media experts in accordance with the assessment aspects including, aspects of media presentation, aspects of presentation of material and aspects of language conformity. Validation is done 1 time by getting results of 100%. Based on table 3.8 categorization of validation results, when presented the results of product eligibility entered the range of 85.00 % - 100%. Then the results can be known that the digital comic media flipbook vat entered into the category Very Valid and can be used without any revision.

Feasibility of text media (including pictorial comics) is the feasibility of content in accordance with sk and KD on subjects, in accordance with the level of child development, and the needs of the community or school [6]. In the practicality of this flipbook digital comic media, easy to use and practical in its use, students can easily open flipbook digital comic media with the help of android phones. Media can be opened at any time by being used independently or guided [4]–[7], [11]–[13]. In the validation of users or teachers of grade III elementary school, validators give advice and input for media products that are to increase their creativity in creating learning media. Digital comics flipbook vat with strengthening of mutual respect characters are valid according to the teacher of class III elementary school and in accordance with the assessment of aspects of content feasibility, aspects of presentation of material, aspects of medical presentation, aspects of language conformity in digital comic media flipbook PPKN.

Product Ministry by Students The results of student response questionnaires are obtained from the trial stage. The trial was conducted twice, namely product trials and usage trials. The product trial phase was conducted with three respondents at the researcher's home. While the usage trial was conducted at UPT Education Unit SDN Pandansari 2 Tulungagung Regency. But because it is still in the Covid-19 pandemic, respondents who took part in the trial used only 12 students.

Product Trial / Small Scale On small-scale trial data is conducted by taking a sample of students as many as 3 children. The trial activity begins with praying first, after which the introduction of the speaker and from the students, then the speaker explained about what is the digital comic media flipbook vat, after which students...
observe the digital comic media flipbook vat via mobile phone, after observing students working on the problem given through Quizizz, after simply observing the student media fills the questionnaire, after filling out the questionnaire students are asked spontaneously about the digital comic media flipbook PPKN. The last activity of the students came home. The result given on the overall small-scale trial was 100% answered "yes". So it can be concluded that students consider the digital comic media PPKN flipbook developed interesting and can foster mutual respect in students when studying the digital comic media flipbook PPKN.

Large Scale In the use / large-scale trial data is done by taking a sample of 12 students. The trial activity begins by praying first, after which the introduction from the speaker and the students, then the speaker explains about what is the digital comic media flipbook PPKN, after the student finds out next students observe the media, after simply ading the student's media working on quizizz questions, then students fill out questionnaires. The last activity of the students came home. The results given on the overall large-scale trial were 100% answered "yes". So it can be concluded that students consider the digital comic media flipbook PPKN developed interesting for students to learn.

V. CONCLUSIONS

Based on the discussion it can be concluded that this research and development produces products in the form of digital comic media flipbook vat is very valid and very interesting. Product validity is 95% according to material experts and 100% according to media experts. While according to users / teachers, the product sales by 90.6%. 100% of the product is based on the results of the student questionnaire. Then the digital comic media product flipbook PPKN is said to be very valid and very interesting can be used in learning.

REFERENCES