Research Article

Development of Christian Educational Comics for the Public (Collected by College Students Majoring in Learning Media)

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Abstract.
One big challenge for teachers today is to provide creative, interesting, innovative, and up-to-date learning media with the aim that students are not bored and can absorb information better. The study aims to develop Christian religious education comics that can be read by all and to test the effectiveness of these creations. This Research and Development program uses the 4D approach, namely Define, Design, Development, and Dissemination. However, at this stage, it is limited to the Development stage. The subjects of this study were a mix of school children and adults with a total of five people. The result of the study shows that: (1) Christian educational comics can be read by all groups; (2) Educational comics that have been developed are suitable for use with a material expert rating scale of 79.29% with proper qualifications, learning media experts are 84% with very decent qualifications, and preliminary trials of 90.11% with very decent qualifications. In conclusion, Christian religious education comics can be read and are appropriate to be used. From these results, prospective teachers are expected to be able to create learning media through various applications and materials related to daily life.

Keywords: Christian education, development, educational comics, learning media

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1. INTRODUCTION

Technological developments nowadays are very helpful, especially for a teacher. They easily find good works of literature which can be used for teaching in class. This is also a challenge for teachers to create creative, interesting, innovative, and up-to-date learning media so that students are not bored and can absorb information better [1]. The availability of new and innovative learning media is still limited. Therefore, teachers can use technology to make learning media to overcome teacher problems in delivering material. Instructional media should be made accessible using a mobile phone or laptop or printed in an attractive appearance to answer the needs of students in learning.

Comics are one of the learning media that can be used in teaching. Comics are picture books that contain stories that are presented in a narrative and descriptive manner to

help students understand concepts more easily and optimize brain function [2]. Comics are works of art in the form of motionless images and are arranged with a storyline that can provide new experiences in fun learning, comics are also equipped with different pictures with sentence balloons that show conversations between characters in the story [3], until now comics are still worth reading for all people from children to adults because the essence of comics is to see pictures and understand the contents of the story so that comic readers will be in direct contact with learning resources [4]. The content of learning materials can be developed in educational comics because the images and materials are packaged in the form of everyday conversations [5].

Research [6] explained that there was an increase in learning motivation and reading skills after reading comics. In line with that, students also experience an increase in visual literacy skills so that the concept of the material can be understood properly [7]. Educational comics have a distinctive feature where this learning media is equipped with colorful or non-colored illustrations and contains learning material so that students are interested and want to read it, however, there is a difference between educational comics and comics in general, namely the end of the story in educational comics there are quizzes or questions related to learning content, while ordinary comics do not have quizzes.

Educational comics are made to increase literacy skills and being able to attract students' attention to studying subject matter. Educational comics can also be a means of entertainment for students as well as providing material related to learning. This book can be used to provide new experiences to students, besides that the teacher also needs to provide guidance information in working on the final part of educational comics as a reflection and knowing students' understanding of learning. Comics can also be used as a medium for educating, teaching material, and building good character and morals [8]. Presenting interesting comics can bring students into a joyful atmosphere because with a happy heart, students can learn well, and absorb material by activating memory through visual learning styles [9]. In addition, material in educational comics can also be inserted into character education which aims to create good behavior in society (Solihah et al., 2022).

The elements in the comic are the front cover with the title, author, and publisher. The content section contains panels, word balloons, story narration, gutter, and splash pages, and the final section contains a summary of the story [11]. But we can add to the evaluation at the end of the comic. The advantage of using educational comics is that the material is light and related to everyday life so that it is easy for anyone

to understand the material, besides that the storyline in the comic is sequential, not monotonous, and using simple language makes it easy for anyone to understand the material [12], comic media can foster a disciplined and responsible character in students [13]. Another advantage is to increase interest in reading and helps in remembering the material for a longer period (Handayani & Koeswanti, 2020). Students whose weakness in using educational comics is that the absorption of material is not effective for people who have a visual learning style, if the use of language in comics is not good, it can cause misinterpretation of the material [15]. Comic readers are usually directly involved emotionally and make the reader continue to read until the end of the story, if this is applied in classroom learning then the students have unconsciously mastered the learning concept very well (Syahmita et al., 2018).

Comics usually contain free stories and currently the story content is still very minimal that raises the learning theme, therefore, researchers feel the need to create teaching materials in the form of educational comics that can foster interest and interest from students and learn and understand Christian religious education at the time this and can also be used in teaching in the classroom.

2. RESEARCH METHODS

This research is development research that uses the 4D approach developed by Thiagarajan with the following steps: Define, Design, Development, and Dissemination. (Sugiono, 2019), but at this stage, it is limited until the Development stage. Define Stage: comics are designed by researchers to answer the problems that occur where Christian religious education material is only contained in textbooks, therefore, many readers are not interested in understanding the material, therefore a different learning media is needed, namely, educational comics so that readers feel curious and want to read the material. Design stage: At this stage, the design of the type of media that will be developed is carried out, namely educational comics, Development stage: at this stage, researchers begin to test the validity of educational comics with the specified specifications. The validity of the comic was conducted by learning media experts and learning material experts and a small group test with a total of 5 people was also conducted. Data analysis is done by calculating percentages from questionnaires obtained from media experts, material experts, and small groups. Indicators assessed by media experts are completeness of comic components, cover design, and comic content design. The indicators of material experts are the appropriateness of the material, the

accuracy of the material, the attractiveness of the material, the presentation technique, and language assessment, while the indicators of the small group trial are the aspects of appearance, presentation of the material, and benefits.

In calculating the percentage of the assessment score, the formula below is used :

$$P = \frac{(The\ answer\ x\ weight\ each\ option)}{n\ x\ option\ weight}\ x\ 100$$

Keterangan :

P = Score presentation

Σ = Total number of target

N = The total number of ideal scores in one item

TABLE 1: Data Analysis Conversion Results.

Mastery Presentation	Qualifications	Description
80 - 100	Very Worthy	No need to revise
60 - 79	Worth it	No need to revise
40 - 59	Decent enough	Revision
20 - 39	Not eligible	Revision
0 - 19	Very Unworthy	Revision

3. RESULTS AND DISCUSSION

In making educational comics, the storyline must be created first by planning all the stories in the comic. Storyline components are title, topic, author's name, purpose, character's name, and synopsis/story description. The components of the synopsis/description are panels (story slides), storylines, characters, visual assets in the form of dialogues and types of shooting, and narrative information. After the storyline is finished, continue with the shooting. Taking pictures is done by the students themselves based on the design of the story in a variety of ways, they can use the subject of the doll photo, or the student concerned. After taking the picture, continue by entering it in the comiclife3 application. In this application, templates are already available, students just need to enter images and dialogues based on creativity. In this part, students' creativity is very much needed and also good time management is very much needed. After everything is finished, proceed with making the cover page, in this part, the author uses the Canva application to make a cover with a pdf file type. The comiclife3 application can be

easily downloaded at http://comiclife.com/, this application is a paid application but can be used for free with a 30-day trial. Comics that have been created are saved in pdf or JPEG format, to make it easier to share educational comics with students.
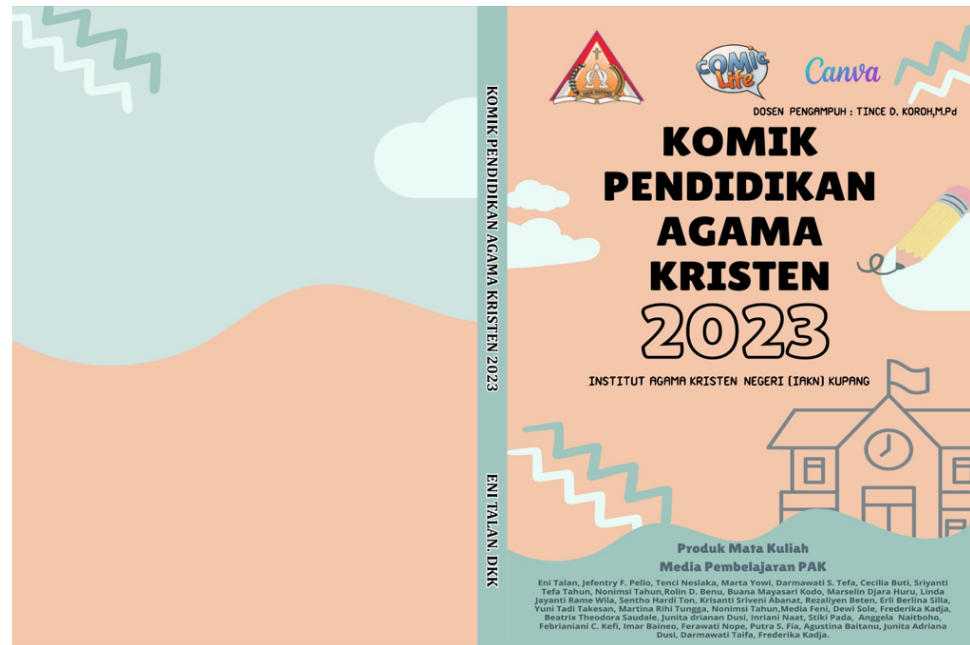

Figure 1: Cover Design for Educational Comics.

The choice of the cover of the comic book was made to attract the attention of the reader, with the choice of black color on the letters to make it easier to read. The next page in this comic is the general topic of the comic, introduction, presentation page, instructions for using educational comics, table of contents, and content of the comic.

The difference between ordinary comics and educational comics is that at the end of the educational comic story, there is a quiz that the reader must answer, while ordinary comics do not have this. Quiz questions are made related to comic stories or can be developed by the author himself. Here are the quiz questions shown in picture 3 as follows:

The images used in the making of educational comics are direct photos that are edited like comics to avoid image plagiarism and give freedom to channel creativity and present photos according to the author's desired goals. In taking pictures, the researcher must take pictures from different points of view so that when presented it is not boring because the characteristics of comics are in the pictures. Images used in comics with various colors can attract the attention of readers because images are the main strength of educational comics. The use of good and correct language is also important because the reader will get the gist of the material [18]. Based on research

Figure 2: Educational Comic Content Sheet.

from [19] it was explained that there are several things in improving the effectiveness of making educational comics, namely 1) the use of language and vocabulary, 2) the series of stories, and 3) the quality of the images used.

The educational comics that have been developed have been validated and the results are suitable for use with the evaluation of the learning media expert validator is 84% with very suitable qualifications, the material expert validator 79.29% with suitable qualifications, and the preliminary test is 90.11% with very qualified eligible. The

Figure 3: Quiz at the end of the story.

assessment scale will be presented in Diagram 1. The percentage of the development of Educational Comics is below:

In the making of comics, the teacher's creativity is very necessary, where connecting the story with the material and taking pictures and editing is not easy. Teachers need a lot of time and also need to be equipped in using comic editing applications and using the internet and good time. This is in line with research [20] where teachers can develop comics according to their needs, comics can be made into teaching materials, or make project assignments, depending on how creative the teacher is in using comic media as the right learning media.
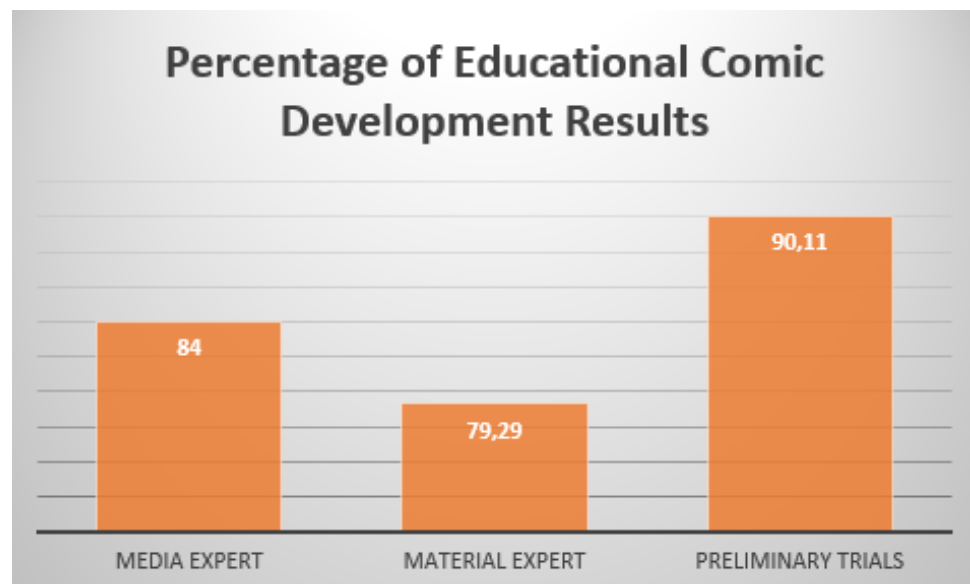
Figure 4: Educational Comic Development Results.

4. CONCLUSION

The use of educational comics as educational media has begun to develop to overcome the problem of boredom in learning. The results of the development of Christian religious education comics can be read and used by all circles. As for the results of the educational comics testing of learning media experts is 84% with very suitable qualifications, material experts 79.29% with suitable qualifications, and the preliminary test is 90.11% with very suitable qualifications. From the results, prospective teachers are expected to be able to create learning media by utilizing various applications and materials presented that are related to daily life.

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