

Efforts to Improve Learning Quality through Comic Making Training

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ABSTRACT

Teaching materials as factors that influence the teaching and learning process run effectively and efficiently. Based on the results of preliminary analysis, almost all teachers have never developed their own teaching materials. In addition, fractions are a topic that is considered difficult by most students, especially if presented in the form of story problems. There needs to be an innovation of teaching materials that are in accordance with students' cognitive levels, increase interest in reading, and accommodate students' numeracy literacy skills. One of the efforts that can be done is to provide training in teaching materials in the form of fractional comics. Comics are a reading genre that students relatively like, have interesting storylines, colorful images and contain a sense of humor. The comic making training was attended by 10 teachers from several schools. The implementation of training and mentoring began on July 31, 2021 to August 12, 2021, carried out in stages as many as four meetings with lecture and practice methods. From the results of service activities, teachers' ability to make teaching materials in the form of fractional comics increased both in knowledge and technique. Some indicators of success in this training include teachers having comprehension competence in making comic teaching materials and being able to make comics starting from determining characters to preparing panels to sketch images. Thus, comic teaching materials that have been successfully compiled can then be used by students to get the benefits.

Keywords: Comic; Community Service; Literacy Numeration.

INTRODUCTION

There is an old admonition that "reading is the window to the world". By reading one can know many things that were previously unknown and one can write because he has read. The ability and willingness to read will affect a person's knowledge and skills. The more you read, you can be sure that someone will know more and can do more. This means that a person's amount of knowledge will help him do many things that he did not master before, so that someone who reads a lot has more quality than someone who reads a little (Witanto, 2018). It

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is no exaggeration if to survive in the current global era of the 21st century, reading is one of the most important components for students to have (Tiemensma, 2009)

According to UNESCO, there are currently at least 750 million adults and 264 million out-of-school children who lack basic literacy skills. Furthermore, according to statistical data from UNESCO, out of a total of 61 countries, Congo is ranked 60th with a low literacy rate. The 59th rank is filled by Thailand and the last rank is filled by Botswana. While Finland ranked first with a high literacy rate, almost reaching 100%. This data clearly shows that the high interest in reading in Congo still lags far behind Singapore and Malaysia (Witanto, 2018). One of the reasons why the Congolese government implemented this policy is the low survey results in 2018 compared to 2015. Congo is currently ranked 74th out of 79 participating countries with an average score (371) (Tohir, 2019). The literacy culture that has begun to be applied in schools is expected to foster students' literacy skills because in all aspects of life, it must involve literacy activities. In simple terms, literacy contains the meaning of reading and writing (Posel, 2011).

Along with the development of the times, the meaning of literacy is more than just reading and writing. Currently, literacy is interpreted as deeper reading skills so that they are able to understand information critically, analytically and reflectively (Sari, 2018). Literacy skills are a prerequisite as 21st century life skills (Nudiati & Sudiapermana, 2020) can be developed through education in schools. The ability to read is the first step in understanding other basic literacy, such as literacy, scientific literacy, numeracy literacy, financial literacy, cultural and civic literacy and digital literacy (Desyandri, 2018). One of the basic literacy that is the focus of this study is numeracy literacy. Mathematics as one of the subjects given from elementary to secondary school has an important role in various disciplines. To date, mathematics is often considered one of the most difficult subjects for students. Preliminary studies conducted by the service team with partners obtained information that the average difficulty of school students learning mathematics is on fractional material.

This provides information that the concept of fractions is weak in the school environment. Furthermore, the school leader said that mathematics is a difficult subject and is less desirable to students. The mathematics textbooks used come from the government and as a support from certain publishers. There have never been teachers who have created or developed their own books. The average teacher tries to use simple props to make it easier for students to understand mathematical concepts. In response to this, there is a need for innovation to make teaching materials in the form of Fractional Comics. Comics are literary works in the form of images that contain messages. According to Soedarso, the information to be conveyed through comics can be of positive and educational value (Soedarso, 2015). So far, comics are synonymous with super heroes who are the main characters, continuous storylines, and images that express the look of a person's face. This is what inspires the creation of comics by conveying a mathematical concept through a realistic storyline. In addition, math comics must contain a sense of humor because humor can give birth to a positive impression and a sense of fun for children in learning, without feeling bored (Negara, 2015).

Fractional comics are attractively packaged containing images with storylines containing fractional material. School-age children more easily understand and capture the information presented by the author through pictures, even though the pictures are simple (Soedarso, 2015). This means, comics can be used as an alternative learning media. The reality on the ground, teachers in Sumber sub-district still do not have a good enough understanding in developing

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their own teaching materials that can be tailored to the characteristics and needs of students. Teaching media in the form of comic teaching materials were chosen because they were in accordance with the development of the cognitive level of elementary school students. According to Piaget, elementary school-age children have the ability to think concretely (Marinda, 2020). Thus, fractional comic making training aims to improve teachers' comprehension competence in making comic teaching materials and being able to make comics from determining characters to arranging panels to sketch their drawings.

RESEARCH ELABORATIONS

Community Service activities are held with socialization and training in the form of lectures and practices. The time for the service is from July 31 to August 12, 2021. this activity involves partners of the Teacher Working Group. The role of partners in service is to provide locations in schools and monitor 10 teacher representatives so that they can be actively involved during the activity. The focus of this service implementation is to solve partner problems, including teachers gaining knowledge about teaching media in the form of comics and manufacturing techniques, as well as numeracy literacy. Thus, teachers have competence in knowledge about comics. Also, create comic storylines with numeracy literacy and provide assistance in changing the text storyline and panel arrangement and then changing in the form of image sketches. First, this activity team conducted socialization consisting of one meeting, in the form of lectures and questions and answers, with three lecturers, namely providing an understanding of the importance of making their own teaching materials, comic teaching materials and numeracy literacy. Socialization activities were carried out in the school secretariat building. In addition, the team involved three students as team assistants and comic illustrators. In these activities, equipment such as projectors are needed. Second, the mentoring and training stage for making storylines and determining panels is carried out for two weeks each week consisting of two meetings. The teachers were asked to practice making a storyline and continued with the determination of panels to be made into sketch drawings. The comic storyline is focused on fractional material, but the depth of the material is adjusted according to the grade level. The needs needed during the training and mentoring stage are stationery in the form of HVS paper and pen / pencil / eraser. During this activity, participants are free to discuss, question and answer and consult each resource person to help them complete their comic project. At the end of the activity there are five description questions that must be done by the teacher. Questions are given with the aim of seeing knowledge of comics making techniques after the activity is carried out.

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RESULTS AND DISCUSSIONS

Training on making fractional comics based on numeracy literacy on fractional material is an effort to improve the quality of learning in schools. Fractional comics made by teachers can be used as a learning tool. According to Indrayani & Mira (2021), the quality of a learning is influenced by learning facilities in which, teachers have a role in creating facilities that suit the needs and characteristics of students. Before the activity was carried out, the team coordinated and asked for a statement of readiness and willingness of participants to take part in a series of workshops to completion. This is to support the success of the implementation of activities because with sincerity the goal will be achieved as mentioned in the words of the scholar Al Junaid (may Allah have mercy on him) that, *"No one seeks something earnestly and honestly, but he will achieve it. If he wasn't entirely, he would have grabbed some of it."*

At the initial meeting, the event was held on July 31, 2021, opened by the elementary school superintendent. This activity was attended by participants involved by 10 people consisting of teachers. The activity began with socialization, namely participants received material related to the importance of teaching materials and how to make fractional comics as teaching materials. The provision of material is intended to provide insight into knowledge of fractional comic teaching materials and numeracy literacy for teachers. The knowledge received can be passed back to other teachers where participants dedicate themselves. So that it can be practiced and useful, as a result, it increases the good for participants. As the scholar says, *"The reward of kindness is the next good."*

At the end of the event at the initial meeting, the team gave five description tests related to teachers' understanding of teaching materials and comics. The test is given to determine the competence of teacher understanding in making comic teaching materials after getting material from the resource persons.

Based on the results of the answers, all teachers are very familiar with comics and agreed to make comics as teaching materials. This is based on the consideration that comics can attract students' learning interest, have a variety of colorful images, are very relevant to students' cognitive development, effective, useful and the majority of children like stories. Comics serve to attract interest and foster student curiosity so that they can be used as a more effective learning alternative (Nurhayati et al., 2018). Reinforced by the results of research, that the use of e-comics has a positive response and can attract interest (BatuBara et al., 2021).

Other results were obtained after getting the material, the teacher has competence in making comic teaching materials. Like teachers know the techniques that need to be done in making comics, including determining the storyline, determining panels adapted to the

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dialogue, and making sketches of pictures, along with the placement of conversation balloons. This knowledge can be used as a guide to creating fractional comics. At the second meeting, the event was held on August 4, 2021 at the school face-to-face.

Participants who participated in the training and mentoring on the second day were 10 teachers from several schools. The activity on the second day of training and mentoring was the practice of making storylines. During the practice of making storylines, participants discussed each other, actively conducted questions and answers, and looked a little confused in determining the characters, settings and plot of the comic. While the team plays a role in accompanying the discussion and answering all questions from participants. The concept of fractions to be presented in comics consists of understanding fractions, comparing fractions, fractions of value, and calculating operations (add, subtract, times, divide) fractions. Based on the results of the discussion, several characters were determined for this fractional comic, namely Rere, Bona, and Cici. Rere is a child who has a good personality, smart, and helpful. Bona is a child who has a good character and is less smart. Cici is a smart and ignorant child. The characters created in comics need to be tailored to the needs of students. As stated by Saputro, developing comics must be properly tailored to the needs and characteristics of students (Saputro, 2016).

The third meeting was held on August 7, 2021 at the school face-to-face. Training and mentoring activities at the third meeting included completing the comic storyline and dividing the storyline into several panels. After the storyline and panel are arranged, each participant presents the results of the comic that has been compiled, other participants and the team provide input regarding concepts, language, and spelling. The storyline is made to guide the reader along the storyline created by the author. So, the reader understands what the author wants to convey. The arrangement of panels in some countries is from top to bottom and left to right.

The shape of the panel can be rectangular or unframed. But apart from art, determining the shape of the panel must pay attention to the purpose / purpose (Putra & Yasa, 2019). Based on the results of the participants' presentations, there are several storylines that need to be improved, including the fractional problems presented in comics that have not measured numeracy literacy skills. For example, the questions presented are routine questions, namely $\frac{1}{2} - \frac{1}{4}$. Even though these problems can be related to everyday life in the form of stories. Mathematical problems associated with everyday life are then packaged attractively in the form of comics so that they can create optimal learning quality. According to Harmini, et al, comics that have been adapted to the material and creatively designed to raise life situations that are close to students can support the development of students' numeracy literacy skills better (Harmini et al., 2020). The following presented documentation at the third meeting can be seen in the picture below.

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The fourth meeting was held on August 12, 2021 at the school face-to-face. Training and mentoring activities at the fourth meeting focused on sketching drawings based on storylines and panels that had been made by PKM participants at the previous meeting. The team involved two comic illustrators to assist teachers in converting the storyline into an image. Sukenti & Silvia said that sketching activities can be used as a communication tool. One can express ideas into the form of draft images (Sukenti & Silvia, 2016). It is further said that image media has benefits, including fostering interest and students curious about learning activities, developing students' memory and concentration skills.

Training elementary school teachers in making fractional comics with numeracy literacy improves teachers' skills in making learning variations. In addition, this activity also provides stimulus to teachers to make their own teaching materials. The output of this series of community service activities is an increase in teacher understanding related to teaching materials, especially those developed by themselves. When summarized the improvement of teacher professionalism in making teaching materials can be seen in Table 1 below.

Table 1. Indicator Success

Targeted Indicators	Reached	Unreached
Increased teacher understanding related to teaching materials and numeracy literacy concepts	Reached	
Increased teacher understanding related to comics both in terms of creation techniques and use	Reached	
Improving the quality and professionalism of teachers	Reached	
Collaborative arrangement of fractional comic teaching materials	Reached	

CONCLUSIONS

The training of teachers in making numeracy literacy-based fractional comics went smoothly, received a positive response, was able to improve teachers' skills and confidence. During the training, the teacher was enthusiastic, recorded explanations that were not listed on

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PowerPoint, asked questions and answers with the speakers, made comics according to the selected fractional sub-topics and were enthusiastic in following the instructions of the speakers. Some indicators of success in this training include increasing teacher understanding in making comic teaching materials, being able to make comics both in terms of technique and use, improving teacher quality and professionalism, compiling fractional comics collaboratively.

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