

THE EFFECTIVENESS OF USING MATHEMATICS VIDEO MEDIA SUMMARY AND DECREASING MATERIALS UP TO 20

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ABSTRACT

Education is currently constructional and utilizes information and communication technology. Teachers are required to be creative and innovative in creating technology-based learning models. Video-based learning works perfectly both individually and classically, because it can increase children's interest in learning, increase creativity and can improve children's thinking power. Because children can already use the senses of sight and hearing. This research method, the chosen form of research is pre-experimental learning video design. This design was chosen because it is in accordance with the objectives to be achieved, namely to determine the effectiveness of using learning video media before and after students are given treatment based on product validation and trials. Researchers have developed a mathematics learning video with the material for adding and subtracting the number 20 in grade 1 of SD Negeri Lhok Seumeulu. Based on the results of research conducted by the author at SD Negeri Lhok Seumeulu, Aceh Besar District, the following are some conclusions that the author made: Descriptive analysis shows that the use of video media for learning mathematics as one of the media that can support the effectiveness of learning which includes completeness of learning outcomes, student activities that good and positive response of students. Learning video media is expected to be able to use this media in other materials and subjects, so that we can see together how effective the use of learning video media is.

Keywords: *Effectiveness, Video Media, Learning, Summary and Decreasing Materials.*

1. INTRODUCTION

Video learning media is classified into audio-visual media which can display messages and information through images and sounds that are conveyed continuously, this advantage has made video media widely used in activities and learning (Pribadi, 2017: 135). Learning media always develops every year, starting from the use of visual media, print media, and interactive media such as animation. Each medium has its own advantages and disadvantages. For example, print media tends to use standardized languages that are difficult for children to understand. Of all the types of interactive learning media introduced, learning media through animation has more value. Because basically animation is a form of entertainment, and by using it as a learning media it can make children, especially elementary school students, happier in learning, especially in learning mathematics. Mathematics is one of the fields of study taught in elementary school. Mathematics is one of the many subjects that have an important role in education. Mykebust (Sundayana, 2017:2) argues that mathematics is a language of symbols that functions to describe quantitative and spatial relationships.

Learning mathematics, especially at SD Negeri Lhok Seumelu, Aceh Besar District, still encounters many problems, such as the low interest of students to be actively involved in learning activities in class so that it has an impact on low student

learning outcomes. Based on the results of observations at SD Negeri Lhok Seumeulu it shows that the mathematics learning system in schools tends to use lecture and assignment methods, besides that the research results also reveal that there are some teachers who are reluctant to use learning media, because they feel it is difficult and less creative in making good media.

Based on the background of the problems above, the researcher is interested in examining more deeply the problems that arise, namely by utilizing learning video media on addition and subtraction of the number 20 in class 1 of SD Negeri Lhok Seumeulu. With the learning videos, researchers can see how "Effectiveness of Using Video Media for Mathematics Learning Addition and Subtraction Material Up to 20.

2. LITERATURE REVIEW

According to Sudjana (2014) learning video media is media that presents audio and visuals that contain learning messages both containing concepts, principles, procedures, theory of application of knowledge to assist understanding of a learning material. Video is an audible learning material (audio visual) that can be used to convey messages/subject matter. It is said to be heard because the hearing element (audio) and the visual/video element (visibility) can be presented simultaneously. Video is learning material packaged via video tape and can be viewed through a video/VCD player connected to a television monitor. Budiman (2017) Learning video media can be classified into types of audio visual aids (AVA) media or media that can be seen and heard. Usually this media is stored in the form of discs or ribbons. VCD media is media with a storage system and video recorder in which the audio-visual signal is recorded on a plastic disk, not on magnetic tape.

Video media belongs to the audio-visual media which is capable of displaying messages and information through images and sound delivered on an ongoing basis, this advantage makes video media widely used in teaching and learning activities. With its advantages as an audio-visual medium, video media is able to show objects, places and events in a comprehensive manner (Pribadi, 2017: 135).

Video media has been widely used for various purposes. Ranging from entertainment to education and teaching. Video media can be used to reveal objects and events as they really are. Good planning in using the video medium will make the process of communicating information and knowledge more effective and efficient. (Pribadi, 2017: 136).

According to Errickson and Curl (Pribadi, 2019) put forward several advantages that can be obtained from using video media as a learning tool, namely: (1) broaden experience, (2) provide useful information, (3) stimulate interest in learning, (4) guiding responses in the learning process, (5) overcoming physical limitations, (6) encouraging problem solving efforts, and (7)

revealing errors in the learning process and efforts to correct these errors.

Based on the description above, it can be concluded that learning video media besides having advantages such as stimulating interest in learning, a means to learn skills and knowledge, as well as providing direct experience. There are also weaknesses/limitations such as broadcasting information or learning constantly, which can lead to different perceptions.

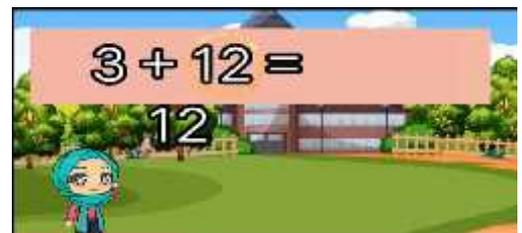
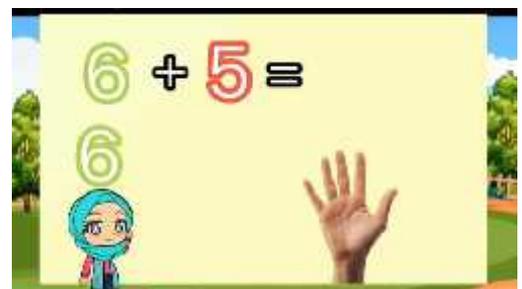
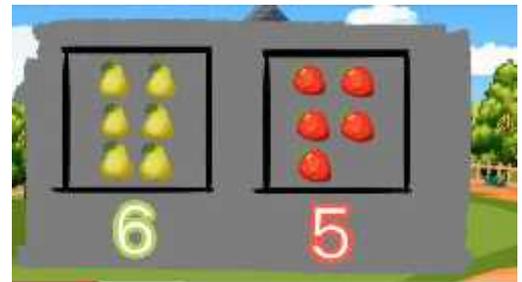
3. RESEARCH METHOD

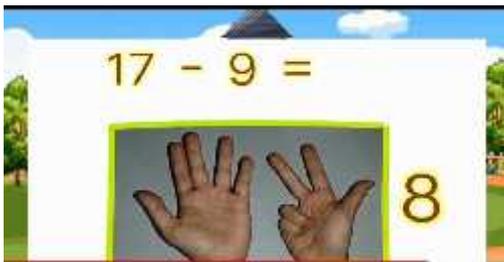
The research method used in this study is an experimental research method. Sugiyono (2013: 107) explains that the experimental research method can be interpreted as a research method that is useful for looking for the effect of treatment on others in controlled conditions. In experimental research, there are several forms of research that can be used, but in this study the form of research chosen was the pre-experimental design of learning videos.

In this research, pre-experimental designs with One Group Design were used. This design was chosen because it is in accordance with the objectives to be achieved, namely to determine the effectiveness of using learning video media before and after students are given treatment based on product validation and trials. Researchers have developed a mathematics learning video with material on addition and subtraction of 20 numbers in grade 1 of SD Negeri Lhok Seumeulu which is valid and effective for achieving learning objectives as a supporting medium.

4. RESULTS AND DISCUSSION

This mathematics learning video program on addition and subtraction of the number 20 is made in the form of a form which is divided into several sections starting from the intro or title display, and the main menu in which there is a profile menu, material, video, and there are 4 navigation buttons including the button sound on/off button, exit button, back button to material, and back button to main menu. The following is an overview of the storyboard of the design of an interactive animation program through the media of learning mathematics, video animation of adding and subtracting numbers at SDN Lhok Seumeulu, Aceh Besar District as follows:





The pictures above are some snippets from the learning video.

5. CONCLUSION

Education is currently constructional and utilizes information and communication technology. Teachers are required to be creative and innovative in creating technology-based learning models. Video-based learning works perfectly both individually and classically, because it can increase children's interest in learning, increase creativity and can improve children's thinking power. Because children can already use the senses of sight and hearing. Based on the results of research conducted by the author at SD Negeri Lhok Seumeulu, Aceh Besar District, the following are some conclusions that the author made: Descriptive analysis shows that students' mathematics learning outcomes after using learning video media all students are more active and the response is extraordinary in the teaching and learning process takes place Of course it can be said that student learning outcomes will increase.

So it can be concluded that the use of mathematics learning video media as a medium that can support the effectiveness of learning which includes completeness of learning outcomes, good student activity and positive student responses. Learning video media is expected to be able to use this media in other materials and subjects, so that we can see together how effective the use of learning video media is.

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