

# THE IMPLEMENTATION OF ANIMATED VIDEO-BASED LEARNING TO IMPROVE COGNITIVE ABILITIES

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## ABSTRACT

Early childhood education (Paud) is an educational unit focussing on teaching children aged 0 to 6 years old, so that children have readiness to enter further education. There are many learning models that can be applied to early childhood education units in developing the potential that exists in children. Teacher is required to be more creative and innovative in choosing a learning model. Paud in Kecamatan Kuta Cot Glie seemed to be monotonous, so it did not attract the students' attention. This study tried to find out whether video animation will make it easier for students to understand the material. The research method used in this study was qualitative descriptive method, using observation, interviews and documentation as the instruments. The subjects in this study were 1 principal, 6 teachers, and 15 students in Tk Ashabul Yamin. It was found that the students' learning outcomes in the form of portfolios shows the percentage of 89% of improvement at Tk Ashabul Yamin. Based on the results of interviews with principals, and it was also found that factors that hinder the implementation of animation-based learning include the limitations of teachers' capability in using applications for video editing (Canva) and limited computer devices and internet access, so it takes a longer time when making videos. Of the seven teachers, only two teachers are proficient in the use of computers. Although there are obstacles in the implementation of animated video-based learning.

*Keywords: video-based animation, cognitive enhancement, childhood education*

## 1. INTRODUCTION

Early childhood education (Paud) is an educational unit which educates children aged 0 to 6 years old, so that the children have the readiness to take part further education. Animated videos will make it easier for children to be able to increase imagination and curiosity carried out in the education unit. The National Education System law defines early childhood as children with an age ranging of 0-6 years, so that from the time the child is born until the child reaches the age of six, it can be categorized as early childhood. The National Education System Number 20 of 2003 explains early childhood education as a coaching effort intended for children from birth to the age of six years through the provision of stimulus or educational stimulus to help children's growth and development so that children have readiness to continued his education up to the elementary school level.

Learning media is an intermediary for teachers in delivering learning materials to students, so that students can easily understand what is conveyed by educators. Learning media must be designed as attractive as possible to arouse students' interest and motivation. There are various types of learning media including visual, audio, and audio-visual learning media.

Furthermore, learning media is recognized as one of the factors for learning success. Video Animation-based learning media makes

educators not monotonous in choosing a learning model, so that children can be motivated and look active. This makes the learning process more meaningful. Animated videos can stimulate cognitive abilities, because children can take advantage of the senses of sight and hearing. Cognitive abilities are the processes by which a person uses the way of thinking to string together an event. with the process that children go through, children's cognitive abilities can be found by the emergence of creative ideas in the learning process (Nur et al., 2020).

The use of learning media is very beneficial for educators and students. Educators can be clearer in delivering material using video-based media, and students will find it easier to understand the material presented with video-based learning media. Moreover, children in the age of kindergarten have an interest in diverse images, music, and colors. This is what makes kindergarten children enthusiastic in learning. One of the mediums that can combine all these elements is animated videos. Animation is a moving medium of images and text that can be accompanied by music.

Animation can be used as a learning medium based on two objectives, namely being able to attract the attention of students and being able to provide space for educators to be able to express teaching materials with an attractive appearance. Learning animations can be inserted with humorous elements and full of music and colors according to the material being studied. The selection of different fonts is the carrying capacity of animated videos in increasing the interest of students to pay close attention to the material. The next function is to avoid multi-interpretation in the delivery of material, animated videos can be designed with various applications, including Canva or other applications. Canva is an online graphic design tool that can be used for free. Making videos using Canva is not too difficult because all its features have been provided according to needs. The existence of Canva is very helpful in the process of making student learning videos. The most important thing to be able to access Canva is an account because when someone already has an account it is very easy to access it. The government has provided the creation of educator videos using free ones, directly connected to Canva. Teachers can create animation through canva. According to Hapsari and Zulherman, 2021, animation has a different effectivity for each learning material, and animation makes learners increase sincerity in learning. Animated video-based learning media are also effective in helping students improve cognitive abilities, both factual and conceptual.

In developing the potentials that are existed in children, early childhood education needs to have an interesting learning model, one of which is animated video-based learning, which is very

effective and very interesting for children. From the animated video, it will be adjusted to the material to be studied. Video learning can stimulate cognitive learners to imagine how the actual form of animation is displayed, so that students will have a medium. It is important to highlight that learning is basically an integral part of early childhood education which cannot function effectively without the media (Yudianto, 2017).

This use of digital media as part of learning has experienced a very significant development, with the presence of digital media so that it will make it easier for educators to design learning. Rigid and monotonous learning will be replaced by learning using digital media because it is considered more practical, flexible, and not tied to time, particularly when Indonesia has begun to implement the Merdeka curriculum in which its essence is not only on educators act as commuters but students can also become communicators. This means that the teacher is no longer the only source of learning, and students play an important role in active learning. If the student is active, the child's cognitive will improve. According to Nur et al., (2020), with learning media, teachers can easily explain the lesson, and students will be more interested in listening to the lesson resulting in the increase interest in students' literacy in students. Furthermore, with the advancement of technology and socio-cultural developments, video watching has become one of the activities that can be done by anyone in every day. In this case, teachers as educators must be able to design innovative learning models and be able to attract children' interest in learning by involving technology in learning. The theory about E- Learning is a theory of cognitive load that has been developed by Sweller (Mariyaningsih, & Hidayati, 2018). This theory describes the principle of cognitive science in effective multimedia learning by utilizing electronic educational technology media. The results of research and cognitive theory shows that the selection of appropriate multimedia learning models simultaneously improves learning.

A learning model could be defined as a design that describes the process of detailing and creating environmental situations that allow the child to be able to interact in the learning process, so that changes or developments occur in the child. Whatever type of model chosen in the teaching and learning process is inseparable from the components of the learning model, namely concepts, learning objectives, materials/themes, steps, methods used, learning tools/resources and evaluation techniques. Thus, the learning model is a concrete picture carried out by educators and students in accordance with the planning that has been made. Planning carried out by an educator must still pay attention to the needs of the child as well as the characteristics of the child.

Based on the results of observations and interviews with kindergarten educator teachers, it is found that learning media that utilize technology were still not used optimally. In fact, cartoon animation video-based learning media is a means of delivering material that can affect children's learning outcomes. On the other hand, using animated videos can create a fun learning atmosphere. It should be learning that is carried out by keeping up with the times, so that students are not outdated. Starting point above, learning videos using the Canva application are the right solution for educators in making learning videos. Because learning media can be audio, visual or audio-visual. Learning media in the form of videos is one of the innovative audio-visual media that can support more interesting learning.

Teachers are indeed actively required to improve the abilities of students, ensure that all educators are literate with technology so that they can implement ICT-based learning activities. To avoid obstacles, it is important to make sure that all of the necessary tools when implementing video-based learning media are available before conducting the learning activities. Therefore, teachers need knowledge and skills in creating engaging learning videos by using the Canva app. Many teachers do not use video-based learning media when teaching so that the implementation of the learning model becomes monotonous. In fact, all teachers have pocketed belajar.id accounts so that they can access the application provided for free by the Ministry of Education and Culture. In response to the above fact, video-based learning media is one of the best solutions that can be implemented to improve children's cognitive abilities and improve children's learning abilities.

Based on research conducted by Syafi'i, et al., (2020) entitled the "Application of Early Childhood Online Learning Videos During the Covid-19 Pandemic", it was found that students became more trusting as if studying in normal schools.

Based on some previous research findings related to the use of video-based learning media, then the researchers would like to conduct research on the implementation of an animated video-based learning model in an effort to improve the cognitive abilities of Ashabul Yamin Kindergarten children. The purpose of the study is to find out whether an animated video-based learning model, which can be enjoyed directly through the senses of sight and hearing, can improve cognitive abilities and can help the learning process and teaching and learning activities run effectively and attract the attention of students.

## 2. METHODS

The research method used by the researcher is descriptive qualitative, in which the researcher wants to describe clearly in terms of how the implementation of video-based learning in improving the students' ability in Tk Ashabul Yamin, both related success factors and obstacles.

The subjects in this study were 1 principal, 6 teachers, and 15 students in Tk Ashabul Yamin. The data collection method used in this study included observation, interview and documentation methods.

The Observation Method is a method used by researchers to obtain information through direct and systematic observation. The purpose of using this method is to obtain data in real time with the existing circumstances in the field. Interviews are a data collection technique with respondents to get more in-depth information about the problem at hand, where the teachers were interviewed in this study. Meanwhile, documentation is obtaining data through a wide variety of documents, be it through photos, portfolios and children's learning outcomes.

Data analysis uses the Miles and Huberman Models by using three steps, namely data reduction, data modeling and drawing conclusions. The initial process of systematically compiling data were classified according to the child's ability, the child's development achievement column is filled with categories namely: Not Developed (BB), Starting to Develop (MB), Developing According to Expectations (BSH) and Developing Very Well (BSB). Furthermore, anecdote notes were also created.

### 3. RESULTS & DISCUSSION

At this stage, what is done is how to analyze the cognitive improvement of students in the implementation of an animated video-based learning model, from the results obtained during the teaching and learning process. It was found that video-based learning model implementation can run effectively and optimally because the learning model chosen is in accordance with children's interests and because so far kindergarten educators have relied more on image media using the lecture method. Based on the results of observations that have been carried out in kindergarten for Group B who still rely on the media of simple images using lecture and question and answer methods to deliver material, the method used were still considered still less optimal and effective in improving cognitive abilities, particularly with early childhood conditions that attract more attention through color images, animated videos, Youtube videos that were broadcasted through Infocus.

However, when educators used video-based learning media, the teaching and learning process looked very active and children were more enthusiastic in learning. In addition, when the discussion took place children were very active in providing answers. A lot of new vocabulary gained through animated videos as well as cognitive abilities further enhancement marked with answers as well as critical questions. Even this learning process using learning media can be re-applied several times through images.

The result of this study is further elaborated in each stage of learning as follows.

#### 3.1. Learning Planning

Learning planning as a learning plan designed to stimulate the development and growth of the child, which is then constructed into a series of learning activities. The lesson plan serves as a reference for teachers in teaching and educating learners before carrying out learning. Learning planning that has been prepared by an educator includes planning daily activities or preparing a lesson plan. It was found that teachers prepare learning facilities and media that will be used during the activity for learning activities, especially video-based learning media.

#### 3.2. Implementation of Learning

Video-based learning activity was carried out in the classroom, with a total of 15 students. Learning activities was implemented using video-based learning media equipment such as Infocus, Laptops and also connecting cables. Animated videos were selected by educators. What made it most interesting was that the children seemed to be involved in the learning process. So that during the activity, the children seemed focused, enthusiastic and no one even paced back and forth during the video screenin. All of the children were found to listen to the story well. Moreover, videos made using the Canva application was very attractive for children, because it was coated with attractive colors and designs so that it did not make children bored in enjoying learning videos.

This video-based learning media can be used as a tool that can stimulate children's cognitive abilities and improve learning outcomes. During the use of video-based learning media, children was very clearly seen to enjoy the performance. During the question and answer activity, they also seemed very enthusiastic in answering and giving responses. The benefit felt by children by applying learning videos was that it can allow them to see the

process in more detail and concretely, compared to using image media alone. The use of video was also found to be able to activate the students' creativity, ask critical questions, and make learning more meaningful. However, it required further explanation and direction from the teacher so that it was not boring for the children. When an educator can design a technology-based learning model, the educator is automatically able or already has skills, so that the expected results will be realized. In fact, every educator needs to conduct learning using an interesting learning model, particularly to motivate students to continue learning.

The children's learning outcomes was also found to improve, namely cognitive abilities, attitudes, and skills of children. The implementation of Animated Video-Based Learning carried out at Ashabul Yamin Kindergarten went well. At the beginning of the activity, students were very enthusiastic and attracted to witness this new model. During the process of playing the learning video, the educator did a video pause to ask the students. This was also done in order to know to what extent the child is capable after watching the video, and whether or not the child understands the intention or storyline.

Although learning media in the form of videos is one of the media used by teachers in direct learning, teachers in this study were often constrained in making videos because it took time, and many teachers were not yet proficient in making videos. In addition, the results of interviews conducted with Tk Ashabul Yamin teachers also revealed that there were problems in the implementation of video-based learning media, and media limitations are one of the main problems that need to be followed up to support video-based learning.

However, from the results of observations during the application of Video-based learning that really attract the attention of students, learning videos using the Canva application can be used as a reference by teachers to make easy videos, especially now for teachers who already have an account belajar.id can get a Canva Pro design. Therefore, it is even more interesting because it is just a matter of choosing what theme to use.

It can also be analyzed from the results of observations on the implementation of video-based learning descriptively by calculating the percentage of learning steps carried out by educators to obtain results. Observation and percentage calculation show that the percentage is 89%, so it can be concluded that animated video-based learning can be implemented properly.

Furthermore, as explained previously, based on the results of interviews with principals and educators, the factor that hinders the implementation of animation-based learning was the limitation of teachers in using the Canva application, and the cost of the internet since when it comes to working at home, computers are limited so they have to alternate at the time of use. Of the seven teachers, only two teachers are proficient in computer use. Although there were obstacles in the learning process as described above, animation-based learning is still ongoing, and teachers can overcome these obstacles by scheduling each group of students in the learning video will be carried out. Learning videos could also be created while at school so that they are not carried out at home.

Animated video-based learning was found to be very effective to be used in kindergarten, because children more easily understand the

content of the material presented. Furthermore, based on the results of the data analysis, it can also be concluded that 9 children have developed as expected, 3 children developed very well and 2 children began to develop. Based on the initial analysis of 15 children, 7 children developed very well, 7 children began to develop and 1 child developed very well. The following figure is the example of the students' portfolio.



Figure 1. Childrens' Portfolio



Figure 2: Children Watching Animated Videos Using Laptop



Figure 3: Children Watching Animated Video Using Infocus

#### 4. CONCLUSION

The application of video-based learning media designed using the Canva application was very attractive to students to stay calm and comfortable. Learning videos using the Canva application were found to be very suitable to attract the attention of the children. It was also found that the material presented through the video enriched the students' understanding. So that students can implement it in their daily lives. Furthermore, videos used in the learning allowed the improvement children's cognitive abilities because children can see the process in more detail and concrete, compared to using the sole image media. The use of videos can also activate student creativity, stimulate them to ask critical questions and make learning more meaningful although it requires further explanation and direction from an educator.

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