36. Implementation of Learning Media by Using the Videoscribe Application: Sparkol in Developing Competency of Elementary School Teachers

by Kapin Proceeding

Implementation of Learning Mediaby Using the Videoscribe Application: Sparkol in Developing Competency of Elementary School Teachers

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Abstract. This research was motivated by the anxiety of elementary school teachers in packaging multivisual information technology-based learning media during the Covid-19 pandemic, so that students were interested and enthusiastic about learning. The purpose of the research is to improve the professionalism of teachers in distance learning (on the network) which requires the skills to be creative and innovate with information technology. The method used: descriptive qualitative with content analysis techniques. The research subjects were 22 teachers in Cluster 3 Mandiri, Bogor City. The data is a description of the competence of teachers in the learning media product Videoscribe: Sparkol. The results of the study: 1) teachers can implement an understanding of the features in this application, 2) teachers master verbal features containing material in the form of words, phrases, sentences, which are made according to basic competencies,

Keywords: learning media, application, VideoScribe: Sparkol, industrial revolution

1 Introduction

Today the world has entered the era of the industrial revolution 5.0 which is marked by increased connectivity, interaction and development of digital systems, artificial intelligence, and virtual. The increasingly convergent boundaries between humans, machines, and other resources, information and communication technology certainly has an impact on various sectors of life, including education [1].

The concept of the 5.0 industrial revolution is a concept that was first introduced by Professor Klaus Schwab, a well-known economist from Germany and the initiator of the World Economic Forum (WEF) who through his book, The Fourth Industrial Revolution, stated that the 5.0 industrial revolution could fundamentally change the way we live, work, and relate to one another.

Education 5.0 is a general term used by educational theorists to describe the various ways to physically and non-physically integrate cyber technology into learning. This is a leap from education 4.0. Education 4.0 includes a meeting of neuroscience, cognitive psychology, and educational technology, using web-based digital and mobile, including applications, hardware and software. Education 5.0 is a phenomenon that arises in response to the needs of the 5.0 industrial revolution. Humans and machines are aligned to obtain solutions, solve various problems faced, and find new innovation possibilities that can be utilized for the improvement of modern human life.

There will be many changes in the future, and predict how the classroom trend (classroom) will look in the next 5-7 years, namely (a) major changes in classroom layout, (b) virtual and augmented reality will change the educational landscape, (c)) Flexible assignments that accommodate many learning styles (preferences), and (d) MOOC and other online learning options will have an impact on secondary education.

One of the changes in this era is the need for the preparation of adequate human resources to be ready to adapt and be able to compete on a global scale. This quality improvement also has an impact on increasing the competence of teachers as agents of change in education. The success of a country in facing the 5.0 industrial revolution is also determined by the quality of educators such as teachers. Teachers are required to master the skills, the ability to adapt to new technologies and global challenges [1]. Of course, this increase in resources needs to be prepared in order to create good learning management.

2 Learning Media

Learning media is an intermediary tool in the delivery of material in order to maximize the role of education, of course in its selection it must also be considered. This is because the selection of the right learning media can also influence the maximum role of learning media in achieving goals. The use of learning media that is in accordance with the characteristics of students' needs and the material to be conveyed will help arouse students' curiosity and motivation, as revealed by Alannasi (2016) in[2]and as a stimulus tool in learning activities, he further disclosed that the selection of the right learning media can also influence the maximum role of learning media in achieving goals. The use of learning media in accordance with the characteristics of student needs and the material to be delivered.

Learning media is one component of learning resources for students. Teachers must be able to choose learning media in accordance with learning objectives, and students can accept the media well as a learning resource. Learning media can increase students' motivation, activity or understanding in participating in learning activities, in this case in accordance with the opinion expressed by Azhar Arsyad (2009: 25) learning media can clarify the presentation of messages and information so that they can facilitate and improve learning processes and outcomes.[3]

Things that take into account the importance of learning media as revealed by Kemp and Dayton (1985) in Kustandi and Darmawan (2020:17-18) reveal the positive impact of using media as an integral part of learning, including, learning can be more interesting, more interactive, and the quality of the results Learning can be improved if the integration of words and pictures as learning media can communicate elements of knowledge in a well-organized, specific, and clear way.

Another consideration is that teachers' abilities can be developed because of their potential. Facilities in the form of multivisual media devices can be utilized in increasing professionalism at this time. In addition, in community service activities carried out by researchers, the following survey results were obtained. The teacher's response was 90.9% using learning media, however, 40.9% still using conventional media only 22.7% (Rosdiana, et al, 2019). This indicates the potential of teachers to be creatively willing to make interesting and attractive learning media other than conventional media that they have made in conducting the learning process. Such as the following questionnaire data support. The question whether teachers have ever made application-based learning videos, especially the VideoScribe:Sparkol media in general has never made and will use this media was revealed by 95.5% of teachers.

VideoScribe:Sparkol is a software application whose results are in the form of videos that can be combined with concept maps, images, sounds, and music that can stimulate learning actively. To support the training, guidelines have been prepared containing understanding, benefits, how to install, how to change the on line mode to off line, features,

Research on the use of the VideoScribe:Sparkol application has been carried out by many researchers. In general, research that uses this multivisual application is used to measure student learning outcomes in certain basic competencies according to the subjects developed by researchers. This scientific article has differences in the study of its analytical content with research in the use of this application in other journals. This article empirically reveals the use of the features in the application in relation to the packaging of teaching materials that are arranged according to the basic competencies in the classes taught by teachers.

This research aims for 1) Describe the implementation of understanding the features in the VideoScribe:Sparkol application, 2) Describe the use of verbal features containing material in the form of words, phrases, sentences, and their suitability with the material and basic competencies, 3) Describe the use of image features (lines, pictures, arrows, icons)), 4) Describes the use of the tone feature (music), and 5) Describes the digital literacy ability to convert working papers into MP4 (video) form.

To give you a better idea of VideoScribe:Sparkol. The following is a presentation and visualization.

3   *Videoscribe:*Sparkol

*Video Scribe Sparkol*ais software that we can use to create white background animation designs very easily. This software was developed in 2012 by sparkol (one of the companies in the UK). And exactly a year after it was released and published, this software already has more than 100,000 users. Videoscribe-sparkol can be used for educators, teachers, or lecturers as an introduction to learning. Videoscribe-sparkol can be used for educational presentations[4]

*Whitboard animation video*It is known by many other names, such as 'sketch videos', 'doodle videos', 'video scribing' or 'explainer videos', however, people prefer to call it whiteboard animation. Whiteboard animation is where an artist sketches images and text on a whiteboard, or perhaps paper or canvas, to illustrate a particular script or narrative. (Air:2014) and[5].

Figure 1. Application *videoscribe*

`*Software*This software was developed by a company in the UK, precisely in 2012 this software was released. Furthermore, the great thing is that this software already has more than 100,000 users, after a year this software or application was published. This application is an appropriate and accurate tool because it can be used as an introduction to learning, and is very helpful in providing understanding to students.

Based on the explanation above, it can be concluded that *videoscribe:*sparkol is an application or software used to create a video with handwritten animation which includes a combination of language, concept maps, pictures, sounds, and music. In this application there are many interesting and unique animations, so that it will make students more like and entertained in teaching and learning activities. With this software, it will be easier for us to convey messages, because we do not need to present something with a long duration.

4   Methods

This study uses a qualitative descriptive method with content analysis techniques. With this method the author can obtain the data of the essay as it is. The descriptive method underlies a research based on existing facts or phenomena that empirically live on in the speakers. Thus, the results obtained or recorded are in the form of language descriptions that can be said to be exposing what it is[6]The objectives of qualitative research are description, exploration, and discovery. In this case, qualitative research studies the breadth and depth of a phenomenon to reveal richer and more meaningful information about a phenomenon that is the object of research.

The analysis in this study is more descriptive analytic, which means that the interpretation of the content is made and compiled in a systematic and systematic manner with content analysis techniques. Content analysis techniques are used to find facts with data interpretation. Content analysis is a research technique for making replicable inferences and valid data by taking into account the context.

The data is in the form of VideoScribe:Sparkol media which contains teaching materials or materials according to the basic competencies made by the teacher. The focus of the analysis is on the competence of teachers in using the features of the VideoScribe:Sparkol application. Text features, image features, tone/music features, recording features, and digital competence in converting worksheets into videos by converting them into MP4, so that students can access them via whats app. This aims to obtain an overview of the digital literacy competence of teachers in making their own multivisual-based learning media VideoScribe:. The amount of data is 22 VideoScribe:Sparkol media data from teachers in Cluster 3 Mandiri, Bogor City.

5   Research Result

5.1   Using VideoScribe:Sparkol

To reveal the results of the distribution of the use of the VideoScribe:Sparkol feature, various features will be presented in this application.
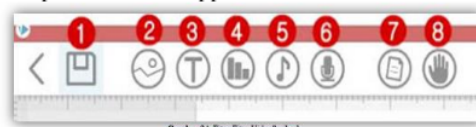

Gambar 24. Fitur-Fitur VideoScribe 1

Figure 2. Sparkol Features

The following is an explanation of the symbols in the VideoScribe application: Sparkol: 1) save the work in the form of a project (still editable), 2) enter characters or images, 3) enter text or text, 4) enter the date, month, and year in the video, 5) insert music into the video, 6) insert voice narration or voice recording for the video, 7) change the appearance of the video background, 8) change the animation in the video, for example a picture of a writing hand or other moving hands.

The features studied in this study are inserting images, writing text, recordings, tones, changing techniques in MP4 (video) form. So, not all features are reviewed. Specifically for writing text, the writing will be revealed in the form of words, phrases, sentences, and paragraphs. while in the picture it will be revealed about the use of arrows, as a form of video flow pointer, photos/animated images for interesting and illustrative material, recordings, if the teacher requires it, and music as video backsound. This music can be in the form of instrumentals or songs, either from the default application or uploading from their own files or from YouTube. The teacher also used the background and hand-animated images in the making of this video.

In the following, data regarding the use of these features will be presented in the form of the following table.

Table 1.Teacher's Ability to Use VideoScribe:Sparkol

Score	Feature Application	Conformity of Material with Indicator	Video File Conversion
SM	89%	95%	93%
M	5%	5%	7%
C	6%	0%	0%
TM	0%	0%	0%
Total%	100%	100%	100%

Based on the table above, it can be revealed that in the first aspect, the teacher's mastery in implementing the features in VideoScribe reached 89% in the very capable category, 5% capable and 6% quite capable. In the second aspect regarding the suitability of the material with the indicator, the data obtained are 95% very capable and 5% capable. In the third aspect, converting into video files, it appears that 93% are very capable and 7% are capable (needs a little assistance).

The table above, if illustrated in the distribution of competencies on feature mastery, conformity with indicators (KD), and mastery in converting to video files is shown in the following graph.

VideoScribe:Sparkol Vitur Application Percentage

Penerapan Fitur

5% 6% 0%

89%

■ 1 ■ 2 ■ 3 ■ 4
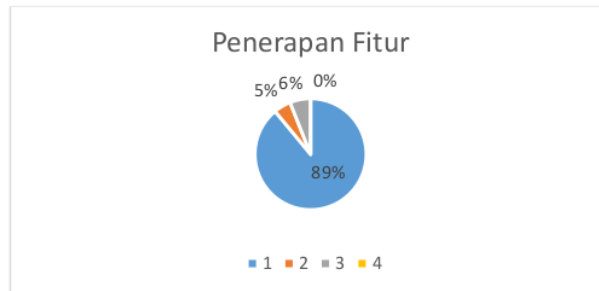
Graph 1. Feature Implementation on VideoScribe:Sparkol

Based on the table above, it can be revealed that the teacher's mastery in implementing the features in VideoScribe reached 89% in the very capable category, 5% capable and 6% quite capable. This indicates that almost all teachers are able to master information technology, especially in making information technology-based learning media. This mastery is an illustration of the preparation of digital-based learning materials or media. In accordance with the demands of the industrial revolution 5.0. This video contains elements that meet the demands of new innovations that can be used for the improvement of modern human life. As stated at the beginning of this paper that sOne of the changes in this era is the need for the preparation of adequate human resources to be ready to adapt and be able to compete on a global scale. This quality improvement also has an impact on increasing the competence of teachers as agents of change in education. In this case, the improvement of teacher competence is sought in digital skills.

5.2   Suitability of Teaching Materials with Basic Competencies

The development of learning media refers to basic competencies and indicators. In the media made by the teacher, the suitability was also analyzed. The presentation of conformity is shown in the graph below.

Kesesuaian Materi dengan KD

5%
0% 0%

95%

■ 1 ■ 2 ■ 3 ■ 4
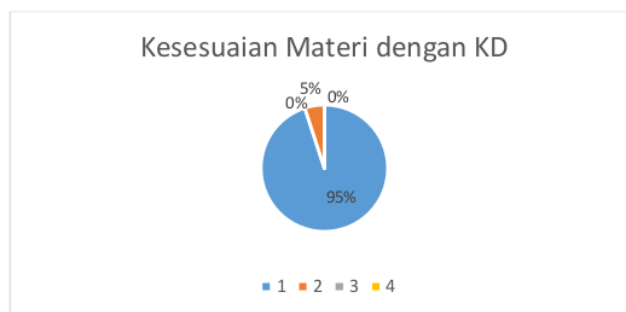
Graphics 2. Material Conformity with KD

In the second data, based on the media made by this teacher, it is the professional competence of teachers in developing learning media, namely by referring to the 2013 Curriculum. This is reflected in the percentage of mastery of 93% very capable and 7% capable. The media prepared by the teacher refers to the basic competencies and indicators in the subjects according to the class level. The development of materials and media must be in line with the curriculum. In this case, it is in accordance with the 2013 Curriculum.

Convert File to MP4
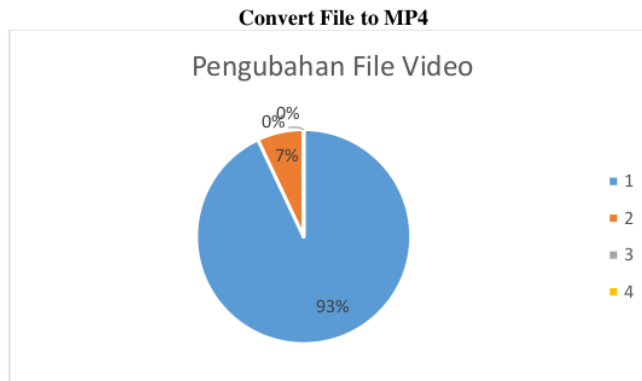
Graphics 3. Video File Conversion

Converting video files is also mastered by the teacher by converting from a worksheet, then saving it in a work file and converting it to MP4 (video) form. This mastery can be seen in the frequency distribution of mastery as follows: 93% are very capable of converting into MP4 and 7% are able (there is an aspect of mentoring in this case). This can be done by converting online and selecting one of the available applications.

6   Discussion

The strengthening of the above data more specifically, specifically for mastery of features, is described in the following table.

Mastery of VideoScribe Feature Type:Sparkol

Using the VideoSribe Feature: Sparkol Elementary School Teacher Cluster 3 Mandiri, Bogor City							
Text	Picture	Arrow	Icon	Object	Recording	Music	MP4
100	90	100	60	90	10	70	100

Based on the data from the implementation of the features in the VideoScribe:Sparkol application made by the teacher, the following data were obtained: 1) using (writing)/adding text (100%), 2) using/adding black and white images, colors, concrete images, animated images (from the app or from google/youtube (90%), 3) using/adding lines/arrows in various shapes and sizes (100%), 4) using/adding icons (60%), 5) using/adding good objects from applications or from computer files or google/youtube (90%), 6) using/adding recordings containing

explanations or teacher voice instructions (10%), 7) using/adding music (70%), and 8) composing videos to in the form of MP4 (video) file types in the application.Changing the video format is intended so that the videos made by the teacher can be enjoyed by students on their cellphones through the Whatsapp application.

In the following, the VideoScribe:Sparkol product made by the teacher will be presented. Description according to features.

a. use (write)/add text
b. The following is an example of writing on text. Writing can be in the form of words, phrases, sentences or paragraphs.
c. use/add black and white images, colors, concrete images, animated images (from the app or from google/youtube
d. use/add lines/arrows in various shapes and sizes
e. use/add icons
f. use/add objects either from applications or from computer files or google/youtube
g. use/add a recording containing the teacher's explanation or voice instructions
h. use/add music
i. convert video into MP4 file type (video)

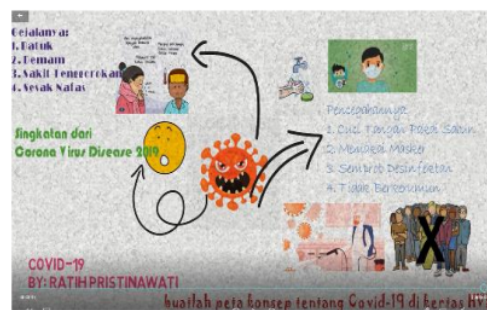Here are some snippets of VideoScribe's products: - Guru Gugus 3 Mandiri, Bogor City.

Figure 3. Example of a VideoScribe Teacher product

Based on the learning media products, it appears that the implementation of the VideoScribe:Sparkol media features. First, the media made by this teacher include features for making text (words, phrases, sentences), as in the material above "Symptoms: 1) Cough, 2) Fever, 3) Sore throat, 4) Shortness of breath. The material made in the text in the following sentences. 1) Wash your hands with soap, 2) Wear a mask, 3) spray disinfectant, 4) don't crowd, etc. Second, the image feature used can be seen in the results of the VideoScribe:Sparkol image. Images are displayed with various concepts, images are presented in the form of animation. The image was uploaded from the use of technology through Google (not the default from the application. This is the development of digital teacher competencies), Third, The icon features in the form of a corona image symbol and a smile icon symbol are chosen by the teacher to make interesting videos and get the context of the material to be delivered. Fourth, the use of various arrows as a form of direction, so that the flow of the material is clearer.

Another example of teacher production is in the image below. Served. Visualization appears to be presented with text, image selection, arrows and other features made by the teacher, music is presented in it. Videos appear one stage to the next to clarify the concept.
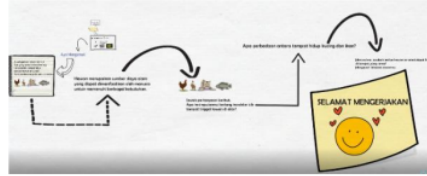
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Figure 4. Sparkol Teacher products

In the following, an illustration of part of a section of videoscribe is presented which contains content about teaching materials. The teacher's competence in choosing a cloud-shaped image as a place for text requires its own skills. Placing text must be after the cloud image is placed, filling in the material content according to basic competencies.

Figure 5. VideoScribe:Sparkol Product Snapshot (Text and Image)

In the following video fragment, a collaboration activity designed by the teacher is presented by using the text feature. This shows that the use of this media can be interactive between teachers and students, and between students and other students. The use of text features in this case can be used in addition to presenting material exposure as well as instructions for students to carry out their learning activities.

Figure 6. Product Highlights of VideoScribe:Sparkol Teacher (Text)

In the example below, the use of the text feature, the real image feature (teacher's photo), the object image, variations of the arrow and the video background are used in the video.

Figure 7. VideoScribe Product:Sparkol Teacher

From the video clip, the teacher (almost all videos feature a picture of the teacher and the teacher's name, indicating an effort to close the distance between teachers and students during the pandemic. The video footage illustrates the form of direct communication between teachers and students by using question sentences. Visually, the teacher can choose a picture in the form of a clock that can be an inquiry question for students. The relationship between the text and the object of the image is added by an arrow in the form of an arrow to connect the two concepts. The concept of thinking through questions (what time is it? With objects in the form of a wall clock). This form of visualization will interesting and stimulates students' thinking activities. If you look closely at the video, there is a song that accompanies it. This adds to the fun learning atmosphere. Visualization like this is illustrated in almost the entire development of learning media made by the teacher.

7 Conclusion

Utilization of learning media is an important means of learning that brings concepts (basic competencies) that must be mastered by students and closes the distance between students and teachers. Especially in the current situation of the Covid-19 pandemic. Meanwhile, changes in various areas of life are moving rapidly. The industrial revolution 5.0 is also a part of changes in the field of education.

Efforts are needed to bridge this revolutionary change, especially in the field of education. Efforts to package information technology-based learning media can be a solution that can meet the demands of the development of this era. One of the multivisual media that can be developed by teachers is VideoScribe: Sparkol. This media can be applied in distance learning. As an online learning media. Learning that closes the distance between students and teachers. Learning that is communicatively and attractively presented by the teacher in the classroom can be presented by the teacher through the use of this multivisual-based learning media. This is an indication of the embodiment of efforts to increase teacher professionalism in facing the 5.0 industrial revolution.

The use of the VideoScribe:Sparkol media can be used as an alternative in preparing interesting learning tools, because the development of this media is presented in a multivisual manner and can be accessed by students as a form of mastery of competencies in each of the basic competencies developed and trained by the teacher. In addition, this media can also be applied to all subjects, especially during distance learning (on line) as it is today.

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