(ARTIKEL 1) Exploration of Easy Ways to use Green Screen in Making Learning Videos in Information Technology Education Study Programs

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Exploration of Easy Ways to use Green Screen in Making Learning Videos in Information Technology Education Study Programs

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Keywords

Green Screen, Learning Video, Pre-Production Stage, Production Stage, Post-Production Stage

Abstract

This research aims to find an easy way to use green screens in making learning videos to make it easier for educators to convey learning. This type of research uses qualitative descriptive research. This research took data from lecturers or teachers at IKIP PGRI Bojonegoro. Data analysis through data collection through interviews and observations to the practice of making learning videos using a green screen. Learning video making activities use the video making stages from pre-production from story idea, synopsis, treatment script and full script. The production stage is the process of recording learning videos using a green screen background and collecting data in the form of images and writing. The third stage of post-production includes the editing stage, where the videos that have been taken are put together and everything that doesn't need to be removed by also editing the background using greenscreen to become the desired background.

Introduction

The development of Education world after the Covid-19 era has grown increasingly rapidly. In education, students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble morals, and skills needed by themselves, society, nation and state, then education is a conscious and planned effort to create an

atmosphere learning and the learning process (Parwanta, 2021). The explanation above indicated that students are required to be active in everything in order to get better learning results. According to Djamaluddin Ahdar & Wardana in Amir (2023) the act of learning itself is the support given by teachers to students so that they are able to obtain knowledge and information, develop skills and habits, and build attitudes and beliefs. Advances in science that occur in the field of education create technology (Ramadhayanti & Mustamiroh in Amir, 2023). Therefore, educators are required to be able to use technology in learning activities. One technology in learning that helps in the learning process is creating learning media.

There are a lot of learning media used in today's technological advances, starting from video teleconferences, learning videos, and video animations. The Zoom, Google Meet, Kahoot, and Google Classroom applications are online teaching applications that have proven to be a challenging task for an educator, namely without the teacher's direct presence (Vadivel et al, in Ardianto, 2021). Even though currently Covid-19 has subsided, there are still many educators who use online and offline learning because they are considered that it was effectively used. Increasing teacher competency, modifying teaching strategies, providing learning tools and equipment including high-quality books, and using technology to improve the teaching and learning process are just some of the approaches to improving the level of education. Several technologies have been created, and learning videos are one of them (Nasution et al in Mataram, 2022).

According to Mataram (2022) learning videos are customizable educational tools that facilitate online and offline learning. Learning videos can be shared with students via the WA group application (Whatsapp) or uploaded to YouTube.com and then included in the school's Learning Management System (LMS) network. In addition, educational films can be downloaded and then watched offline to improve student understanding.

According to Susilana and Riyana in Mataram (2022) Seven categories of learning media are: still photos and graphic printed materials, audio media, still audio visual media, still projection media, cinema, TV shows and other media.

Learning videos are an example of interactive learning media that is used to facilitate learning and facilitate good educational communication and engagement between instructors and students (Amir, 2023). According to Rahmat in Amir (2023) an alternative form of electronic learning media is learning videos, which offer theoretical knowledge and insight and practical application of the content.

According to Muyalin in Parwanta (2021), apart from the methods used by teachers, students' disinterest in learning is also caused by the majority of teachers using conventional methods and discussion methods during the teaching and learning process. This is because learning media such as audio and video media have not been utilized optimally. Learning videos have developed into a learning resource that is often used in various learning processes by different educational institutions (Agus Hadi Utama & Agus Salim in Albustomi, 2024).

Learning video media is media that uses audiovisuals to convey effective learning messages which include concepts, guidelines, steps and application theories to help students understand the subject matter (Riyana in Amir, 2023). In making learning video media, you can use a green screen because a green screen makes it easier for educators to make learning videos.

Green Screen comes from the word green, which means green and screen, which means screen, so a green screen is a green screen that is used for making any video to make it easier to edit videos, especially green video backgrounds. According to Pradhana, Karaman, and Andriyanto in Mataram (2022) the term green screen refers to the background screen used when recording video. The technical way is to remove the green background and replace it with another image using software on the computer. Blue and green are used for the background because these colors are not found in the human body. Because green is the color most responsive to the image sensor on a digital video camera, green is currently the color most often used in the chroma key process (Astuti and Suyanto in Mataram. 2022).

Green has the advantage of not requiring a lot of light. However, due to the need for optical processing, blue was generally used before the advent of digital keys. Apart from its strong similarity to the colors of human clothing such as jeans and military navy clothing, the weakness of blue is that it requires more light input than green (Mataram, 2022). So using a green screen makes it easier to make learning videos.

Observation results from the research found that not all educators understand and can use green screens in making learning videos. There are still many educators who are unfamiliar with green screens because they have not received information about the ease of green screens in making learning videos.

The aim of the researchers is to take the initiative to inform educators about the ease of using a green screen which is an alternative solution in making every learning video that is uploaded to a website or online media and in every online activity.

Method

Research design

This research uses descriptive qualitative research. In a qualitative approach. The author wants to know more about how to easily use green screens in making learning videos in information technology education study programs. This approach is used because the data is descriptive in the form of written and spoken words from the source as well as observed behavior.

Research sample

This research took data from 6 lecturers in the Information Technology Education Study Program. Because information technology education study program lecturers also need convenience in making learning videos using a green screen.

Research procedure

Data collection techniques are essential to ensure that the data is reliable and produces reliable conclusions. This research uses a case study technique, namely an investigative approach where researchers use various sources of evidence, such as papers, artifacts, interviews, and observations, to study an event, activity, program, process, or individual (Shiddike and Rahman in Ardianto, 2021). The following are several types of data collection procedures

A. Observation

Participatory observation is a data collection method that involves researchers in daily activities regarding the subject being researched or used as a source of information; As a result, participant observation produces data that is more thorough, precise and perceptive. The extent to which each behavior that appears has meaning. Researchers will use participatory observation in this research.

B. Interview

The interview conducted by the researcher was a structured interview. The researcher first created an interview instrument because the interview was structured. To obtain comprehensive data and uphold the reliability of interview results, researchers conducted direct interviews. Researchers prepare smartphones that can capture interview results to record the necessary data. Interviews were conducted with lecturers in the information technology education study program regarding the ease of making learning videos using a green screen

C. Documentation

The documentation in this research is used as evidence of researching how easy it is to use green screens in making learning videos in information technology education study programs. Documentation in the form of photos of activities from the pre-production stage, production stage, to the post-production stage in making learning videos using a green screen

Data analysis

According to Miles and Huberman in Amir (2023), qualitative data analysis is done in an interactive manner and is carried out continually until the data is saturated. Data gathering, data reduction, data display, and conclusion drawing/verification are the action stages in data analysis.
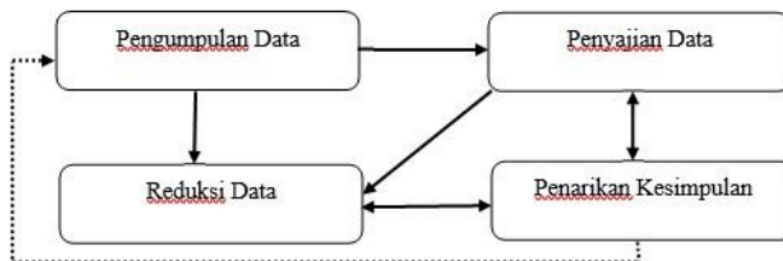

Figure 1. Miles and Huberman's Stages of Analysis

A. Data collection

Data collection was obtained from interviews and questionnaires with 6 lecturers in the information technology education study program. This research instrument uses a descriptive question test with a total of 5 questions based on indicators of ease of use of the green screen in making learning videos. Next, documentation is carried out in the form of data on current conditions that occur when the lecturer makes learning videos using a green screen.

B. Data reduction

Data reduction is carried out to sharpen the discussion that will be taken from learning videos that use a green screen, namely from a summary of the data collected. This summary is carried out to eliminate what is not needed and organize it so that it is easier to draw conclusions. The reduced data is data obtained from interviews and questionnaires which

includes the ease of using green screens in making learning videos in information technology education study programs.

C. Presentation of Data

The data presentation stage was carried out by researchers to be able to present the ease of using green screens in making learning videos from the pre-production stage, production stage, to the post-production stage in the Information Technology Education study program.

D. Conclusion

The next stage is to draw conclusions obtained from the data that has been carried out by the researcher to determine whether this research makes it easier or not. By testing the use of green screens in making learning videos in information technology education study programs, based on the conclusions from these observations, results will emerge regarding the ease of using green screens.

Results and Discussion

In the discussion of this research, it refers to previous research conducted by Ardianto (2021) which discussed green screen as an alternative video production technique which is a solution to learning problems in the era of disruption. This technique can be done independently using devices such as a laptop and a simple voice recorder. The use of green screens can be processed and created in such a way as to produce interesting teaching material and stimulate more interest in learning.

This research produced research results, namely the ease of using green screens to support the creation of learning videos which will be described in detail as follows.

A. Learning Videos in the Post-Covid Era

In the current post-covid-19 era, the world of education has become accustomed to using online-based learning, where students do not attend directly to educators (teachers). Online learning is carried out by group discussions and the provision of resources in the form of films, recordings, PowerPoint presentations, modules, study guides, tests and online evaluations can be used to facilitate virtual learning.

So that students can understand the material provided by the teacher, distance learning does not only rely on the substance delivered by the teacher but also the method of delivery.

Even though teachers and students are not in the same location, the interaction between them is ideal for learning. Video conferencing will facilitate this involvement because teachers will work face to face with students (Marsiding in Ardianto, 2021).

Educators are trying to investigate distance learning with web-based tools such as Zoom, Bandicam, YouTube, Edmodo, and Google Classroom. Since this app has a variety of videos covering a variety of subjects, it can be used as a learning tool to help students succeed in their studies. The aim of using learning media such as YouTube video channels is to create an interesting, dynamic and fun learning environment.

The implementation of distance learning often encounters challenges, such as the inability of teaching staff to supervise learning models and utilize different online learning resources. Operating various online learning programs requires technical skills; however, these tools can also be applied effectively to obtain desired results and ensure optimal learning.

The use of a green screen is an alternative video shooting strategy used to maximize learning. Filmmakers have long used green screen or blue screen as a technique for creating backgrounds. Filmmakers can imagine changing the background to an ideal shape or atmosphere without having to shoot on location, which is why this technique is used (Astuti in Ardianto, 2021)

B. Ease of Green Screen as an alternative for making learning Video

The rapid progress of information and communication technology has stimulated creativity among educational institutions to use online learning platforms to improve teaching efficiency and adaptability. One initiative to improve the level of education is learning innovation. Various technological innovations have been made to assist the teaching and learning process, including learning videos.

So that students who are not interested can still attend lectures, lecturers must be creative in offering various learning resources, not just text-based, to promote online learning during the COVID-19 pandemic. One way to overcome this dilemma is to use learning videos. Lecturers must understand the pre-production, production and post-production stages in creating an audiovisual work in order to be able to create a learning video. in order to produce effective and efficient learning videos.

1. Pre-Production

The production process for making learning videos begins with the pre-production stage. Agrees with Ardianto (2021) that the production stage consists of all activities related to the planning stage before production begins. This stage is the initial stage where the learning video will be created. Starting from a story or creative idea from a learning video

maker. Educators or teachers need to have ideas before making learning videos because successful videos start from creative ideas.

Once the idea is available, continue by developing the idea into a synopsis because the synopsis is what describes the learning video from start to finish but is not as detailed as the script. According to Ramdani (2024) a synopsis is a concise narrative. To help viewers understand the storyline presented in the video or film, a brief explanation of the synopsis is given.

Next, we enter the synopsis development stage leading to the treatment script. The treatment script itself is a more detailed script than a synopsis but not as complete as a full script.

TREATMENT
1. Sequence 1 :
   Credit Title : Logo IKIP PGRI Bojonegoro diikuti dengan Bumper Program dan Judul "IKIP GPRI Bojonegoro"

2. Sequence 2
   Opening dibuka dengan gambar tampilan kampus ikip pgri bojonegoro yang menampilkan icon-icon ciri khas IKIP PGRI Bojonegoro
   Dibuka dengan Bapak Rektor mengucapkan Selamat Datang di IKIP PGRI Bojonegoro

Figure 2. Treatment Script

After entering the treatment script stage, it continues with development towards the full script stage. This stage has detailed stages where the details of a script are here starting from video, audio, duration, background music, fade in, fade out and intro.

No.	Visual	Audio	Durasi
1.	Credit Title : Logo UNIPA	Musik : instrument Fade in;	6"
2.	Bumper Program : Ayo Dolan	Musik : instrument Ayo Dolan	43"
3.	Judul "Ayo Dolan (Pengambilan Gambar Kamera)" Editing : Super Impose Caption Sutradara Caption Penulis Naskah	Musik ; Fade in; up-normal-down; fade out	5"
4.	Kamera : - Till down dari atas ke bawah ke presenter - From LS to MS Presenter membuka program dan menyampaikan Tujuan Program CAPTION : TUJUAN PEMBELAJARAN UMUM - Presenter menyampaikan tujuan pembelajaran umum	Musik; PRESENTER : Salam semangat pagi...... Halo Sahabat Dolan kembali lagi kita dalam "Program Video Pembelajaran" Kali ini kami akan mempersembahkan Video Pembelajaran tentang "***Pengambilan Gambar Kamera***" Sahabat dolan......! Pengambilan gambar bukan hanya sekedar mengoperasikan kamera saja tetapi terdapat bentuk dan sudut dalam penambilan gambar. Dalam pembuatan suatu video seorang kameraman memerlukan bentuk dan sudut pengambilan gambar supaya gambar yang diambil danat memberikan makna tertentu	30"

Figure 3. Full Script

The next stage after creating a full script is to create a storyboard because a storyboard is a description of the learning video that will be created starting from the opening, content, to closing. According to Sargio Paez in Valentino (2020) Storyboard is a narrative of each scene that attempts to provide a clear explanation or description of multimedia items and their behavior. Agrees with Wahyuni (2022) Storyboards are text, audio and visual columns that describe the images and information needed to create a course. At this stage, the video is depicted on the storyboard.

No	Keterangan	Hasil Jadi
1	Scene 1 Credit Title : Logo IKIP PGRI Bojonegoro diikuti dengan Bumper Program dan Judul IKIP PGRI Bojonegoro	

Frame	Judul Program
Teks	Profil IKIP PGRI Bojonegoro
Navigasi	Tombol play, stop, volume suara, tombol keluar
Tampilan	Logo IKIP PGRI Bojonegoro
Audio	Musik instrument

Figure 4. Storyboard

2. Production

The second stage after pre-production is the production stage. According to Fadhillah (2021) The first step in the video production process is filming and recording. During the production stage, we prepare the necessary equipment or stage sets, photograph and record computer screens, and assess the results of the shooting. This is the time when we take pictures or record learning videos.

The equipment that must be prepared to shoot learning videos at the production stage is:

a) The green background will be used as a backdrop for the learning video shooting process.

b) The camera is used to record video and audio in the process of shooting learning videos.

c) An audio recorder is used to record audio so that if you want clearer audio because sometimes the audio recorded directly from the camera is sometimes not clear and has a lot of noise.

d) Lighting lamps are used to support light in recording learning videos. In this case, anticipate if the location or place for shooting the learning video is dark or not bright.

e) The table is used to place laptops and other props to add and enhance the image view when shooting learning videos.

Figure 5. Set of Locations for Making Learning Videos at IKIP PGRI Bojonegoro

3. Post-Production

The final stage of making a learning video is the post-production stage. At this stage, the learning video maker is tasked with collecting all the files from the results of shooting the learning video with images, audio, music and effects to support the learning video being made.

So that the video is suitable for public exhibition, at this stage the video recorded during filming is edited. There are several common video processing steps in this case, from capturing, editing, to rendering (Ardianto. 2021).

After the editing process ends, the rendering process arrives where the learning video is made into one perfect video. However, after the video rendering ends, the video is not immediately published, but is first reviewed by the creator of the learning video to see whether the video is perfect or whether there is still something that needs to be revised.
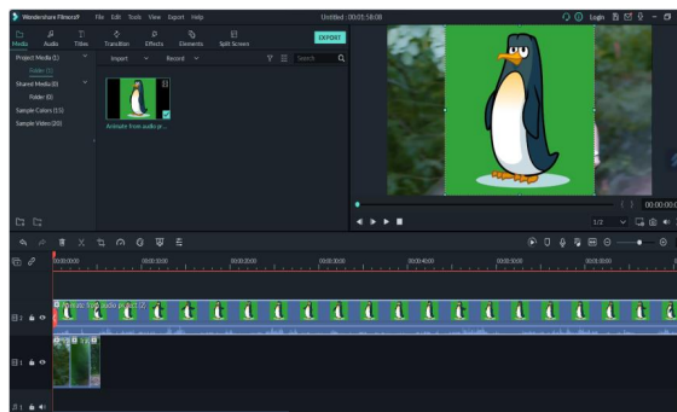

Figure 6. Display of the learning video editing process from the image process using a background so that the background disappears

Conclusion

The conclusion of this research is that the use of green screens can make it easier for educators to create learning videos in information technology education study programs. In learning video production there are pre-production stages, production stages and post-production stages. Green screens can be processed and developed in such a way easily to produce learning videos that meet educators' expectations and can arouse students' enthusiasm for learning.

Authorship Contribution Statement

In this research, Day Ramadhani Amir contributed to preparing ideas, research design and materials, Nadif Ulfia collected data, and Muktamir carried out analysis, in the case of English translation carried out by Nadif Ulfia and Muktamir. Nadif Ulfia and Muktamir wrote the introduction and method, while Day Ramadhani Amir wrote the content of the discussion and conclusion.

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