

Multicam Studio Design Using Vmix as a Learning Media in Smk Bina Am Ma'mur

Leon Yudi Haryanto¹, Abdul Hayat², Abdul Hamid Arribathi³
Raharja University^{1,2,3}

e-mail: Leon.yudi@raharja.info , Abdul.hayat@raharja.info , Abdulhamid@raharja.info

AJRI



Author Notification
27 August 2019
Final Revised
28 August 2019
Published
03 September 2019

To cite this document : leon, leon yudi haryanto, Hayat, A., & Arribathi, A. H. (2021). Multicam Studio Design Using Vmix As A Learning Media In SMK Bina Am Ma'mur: Leon Yudi Haryanto. *ADI Journal on Recent Innovation*, 3(1), 1–8.

DOI : <https://doi.org/10.34306/ajri.v3i1.331>

Hash : ABChBVQWx7joOadHWhV4nVuQ583gpc342VV4gqxiDHPxTbeFTekquPgosr5ayNp

Abstract

The media is a tool that intersects in the process of teaching and learning for the achievement of educational goals in general and learning objectives in schools in particular. The media is also a means of transporting messages or information that is instructional or contain teaching purposes and is therefore called learning media. Many benefits can be taken from media management from what we know so far. The practical benefits of instructional media in the teaching and learning process are learning media that can clarify the presentation of messages and information so as to facilitate and improve the process and learning outcomes. The use of instructional media with multicam studio design using vmix can increase student motivation and can also affect student achievement or learning outcomes. It is expected that the results of this learning media will have an impact on increasing students in learning the basics of multimedia systems, as well as a question and answer activity to increase student activity in the learning process.

Keywords: Studio, Multicam, Vmix

I. INTRODUCTION

Along with the times, the level of need for information and changes in the technology cycle is increasing for society. Technological developments are more sophisticated than before. People have started to adapt to technological developments and have begun to explore things they never imagined before (Diat Prasajo, 2011).

Technology has long been used in the world of education. The invention of paper, printing machines, radio, film, television, computers and others was used for education. In essence, these tools are not made specifically for educational purposes, but these tools can actually be used in the world of education (Budiman, 2017).

The development of information technology which is increasingly rapid in the current era of globalization cannot be avoided anymore its impact on the world of education. Global demands require the world of education to always and constantly adjust technological developments to efforts to improve the quality of education, especially adjusting its use for the world of education, especially in the learning process (Budiman, 2017).

Indirectly, various types of technology have emerged, with the internet as the cog. The problem that will be resolved in this research is how the application is able to send information and receive information quickly, effectively, stably, and easily to use to send information from one sending computer to one or many receiving computers via a computer network (Prayitno, 2015).

According to Putra and Vella Carisa (2019: 65) [14] "Media is a tool, means, intermediary and liaison to spread, carry or convey a message and ideas to the recipient." Meanwhile, according to Sanni, et al (2019: 23) [15] "Deviation of messages or one of the advertising communications carried out by certain media, such as television, newspapers, magazines, radio, internet, profile books, outdoor media, transit advertisements and direct mail. ." In its use, media is one component of the learning system. For its main component, the media should be an integral part and must be in accordance with the learning process as a whole. Therefore, the selection of media in learning activities allows students to interact with the media we choose.

According to Tawaerubun (2015) streaming video is a technique used to transfer data so that it can be processed regularly and repeatedly. Streaming video utilizes a streaming server to transmit digital video over a data network so that video playback can be done immediately. Video is a very complete means of delivering information and can be implemented using streaming technology.

General description SMK Bina Am Ma'mur is a vocational school in the Tangerang district. This school was founded on August 27, 2007 with an accreditation having its address at Jl. Raya Serang KM. 12,5. Cikupa District, Tangerang Regency. Broadly speaking, SMK Bina Am Ma'mur has the duties and responsibilities of implementing education for a certain period of time according to the type and nature of the school. Carry out education and teaching in accordance with applicable obligations, carry out guidance and counseling for students at school, foster the Intra-School Student Organization (OSIS), carry out administrative matters (TU), foster cooperation with parents of students, school boards, communities, and related agencies.

In accordance with the chance obtained by the author, Vocational High School Bina Am Ma'mur has provided the chance to make observations about the design of a multicam studio using the vmix application as a student learning medium.

From the above background, the writer is interested in conducting research entitled "Multicam Studio Design Using VMIX as a Learning Media at SMK BINA AM MA'MUR".

II. ANALYSIS OF THE WORKING SYSTEM

To obtain and complete the data needed in writing a thesis report related to the design of a multicam studio using vmix as a learning medium, using several research methods. The methods used are as follows :

Observation

Observation Is collecting data, through observation and carrying out systematic recording of the elements that have been researched with the aim directly to the system of mechanisms that exist in Smk Bina Am Ma'mur.

Interview

Interview is a technique of collecting data face-to-face with the interviewee, to obtain a clearer picture of the production system related to the object in the study.

Literature review

Literature Study Is a collection of data on theories of how to read, study, and understand textbooks and notes related to the discussion of writing a thesis report on the concentration of Multimedia Audio Visual and Broadcasting (MAVIB).

Media Design

The making of a multicam studio at SMK Bina Am Ma'mur is a learning support medium for students of SMK Bina Am Ma'mur which is designed based on the needs raised by stakeholders, which is then designed using the vmix switcher.

WORKING SCHEME

1. Doing Room Control Room Set
2. Make an Input Cable - Output Image The following is an explanation of the cable groove in the image below:
 - a. White cable: use the amphenol jack to jack bnc, to input the camera image into the vmix.
 - b. Green cable: Uses the RCA to RCA jack, to output the image to the TV.
3. Performing a set of production tools
 - a. Select Add Input.
 - b. Then select a camera.
 - c. Here you can choose the video source that you will use, just choose Conexant USB Video Capture because it uses Video capture
 - d. At a flat resolution, the resolution is in accordance with the resolution recommended by your video capture, here I am using 1280x720 HD size but with this resolution 720x480 we can use it when streaming video.
 - e. Don't forget to check the interlace box.
 - f. In the frame rate I use Pal 50i, you can also adjust this to the resolution supported by the USB Capture you are using. If it doesn't match, an error will appear.
 - g. Only this video format is Default or use H264 as a standard broadcast Cobec.
 - h. Audio Device select USB Capture.
4. Briefing
the most effective and fast face-to-face communication to carry out daily tasks. Leaders always use briefing communications, to convey their needs and information directly to employees. The nature of briefing communication is short, clear, concise, measurable, direct, face-to-face, dialogue, direct feedback, and direct interaction. Briefing communication enables leaders and employees to interact directly with each other, to complete daily priorities and responsibilities.
5. Determining the Concept

Understanding the concept prioritizes the points that want to be conveyed and that can make students understand clearly. To form a conceptual understanding, good and interesting story ideas are needed so that students can be interested in watching or seeing the shows that they want to convey.

6. Make a Studio Plan

The studio plan describes the studio area with facilities such as the exit, the facilities in the room, the shooting area, the control room area, and the storage area.

7. Production

Production is an activity to create or add value to an item to meet needs. The activity of increasing the usefulness of an object without changing its form is called service production.

8. Editing Process

the process of moving and arranging a video shot / recorded image into a new and nice to see recorded image. In general, editing work is related to post-production processes, such as titling, color correction, sound mixing, etc. The term Editing has been widely known and many people provide their own understanding. But in this lesson we agree that editing is related to the work below:

- a. Organize, add or move video clips or audio clips.
- b. Apply color correction, filters and other enhancements.
- c. Create transitions between clips.

9. Broadcasting

Show a video Talkshow about teacher activities outside of teaching or display information about schools and music videos.

III. RESULTS AND DISCUSSION

Visualization Program

1. Box vmix mixer

Box vmix mixer is a tool and software that takes advantage of the latest advances in computer hardware to provide live HD video mixing. Vmix is also a live video production software solution complete with live mixing, switching, recording, and live streaming features. This application also makes it easy to add and edit titles from the many build-in templates using graphics or vector editing software with transition effects. Meanwhile, when using large-scale multicam or a simple webcam, a product can display, record, and live stream all at the same time.

2. Camera

One of the most important parts of making this studio, and it is an image capture tool.

3. Cables

One of the most important parts of creating this studio, and is the image delivery tool that will appear in the vmix software.

4. Audio
Function to capture voice that is being recorded.
5. Studio
Serves to carry out multicam learning activities, and can also be used to create news, talk shows, etc.
English

Project List

During the research process, here is a list of projects at SMK Bina Am Ma'mur:

1. Make IPA (Early Break) and IPS (Afternoon Break) events
2. Create a Talkshow
3. Create teaching events (chat and study)
4. BAM Journal

Project Background and Concept

Make IPA (Early Break) and IPS (Afternoon Break) Programs

1. A program that composes music from within the country and abroad, which will accompany your rest time with your friends at school. Packaged in a cool and different theme every day. Happy Monday, Tuesday romance, upset Wednesday, old Thursday, religious Friday.



Figure 4.1 IPA (Early Break) and IPS (Afternoon Break) Program

2. Creating a Talkshow Event
One of the formats often used by television in presenting "serious" discourse is talk shows. Talk show is a broadcast discourse that can be seen as a media product or as talk oriented continuously. As a media product, talk shows can become a cultural 'text' that interacts with the audience in the production and exchange of meanings. As a dialogue process, the talk show will pay attention to the issue of efficiency and accuracy, on the following aspects: host control, participant conditions and audience evaluation events.



Figure 4.2 Talkshow

3. Make Ngajar Events (Chat and Learn)
Podcasts are a form of audio recording that anyone can listen to or publish. At first glance it is similar to radio, but what is played on the radio is live, whereas podcasts are recorded.



Figure 4.3 Teaching Events (Chat and Learning)

4. BAM Journal
It is a documentary program that is presented through an interesting story from a different point of view.



Figure 4.3 Teaching Events (Chat and Learning)

IV. CONCLUSION

Based on the analysis conducted by the author at SMK Bina Am Ma'mur according to the problem points presented in the problem formulation contained in the CHAPTER I report and the media design produced by the researcher, several conclusions can be drawn as follows:

1. Multicam studio design using vmix can work effectively in learning at SMK Bina Am Ma'mur
2. The target to be achieved in this multicam studio design students can practice directly using vmix as a learning medium
3. The design of this multicam studio is in accordance with live and shooting standards so that it is right when used, the steps are as follows:
 - a. Using vmix software, mixer.
 - b. White cable: use the amphenol jack to jack bnc, to input the camera image into the vmix.
 - c. Green cable: Uses the RCA to RCA jack, to output the image to the TV.

V. SUGGESTION

With this multicam studio, the authors suggest:

1. Increase the computer network or wifi so that the information search process can be easily obtained.
2. New innovations are needed to continue to expand student learning activities.

REFERENCES

- [1]. Prasetyo, Septian Dhimas. 2018. *Rancang Bangun Pembangkit Hybrid Tenaga Angin Dan Sel Surya Untuk Penerangan Jalan Raya*. Skripsi. Jurusan Teknik Elektro. Fakultas Teknik Universitas Muhammadiyah Surakarta. Surakarta
- [2]. Budiman, Yusrizal, & Damanik, J. (2014). Akses Dan Penggunaan Teknologi Informasi Dan Komunikasi Pada Rumah Tangga Dan Individu. *Jurnal Penelitian Komunikasi Dan Pembangunan*, 15(1), 1–16.
- [3]. Diat, Prasajo, L. (2011). *Teknologi Informasi Pendidikan*. Yogyakarta: Gaya Media.
- [4]. Prayitno, Agus. 2015, *Pemanfaatan Sistem Informasi Perpustakaan*.
- [4]. Putra, Azwar Aditya dan Vella Varisa. 2019. Video Kabupaten Tangerang Pada Dinas DISPORABUDPAR Pariwisata. Tangerang : STMIK Raharja. *CICES Journal*. ISSN : 2356-5209. Vol.5 No.1 : 65.
- [5]. Tawaerubun, R, (2015), *Analysis of Video Streaming On Vlc Media Player*.