

## VIDEO DEVELOPMENT AS SUPPORTING LEARNING MEDIA FOR STUDENTS IN CULTURE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN PASCASARJANA UNIVERSITAS NEGERI JAKARTA

Suyitno Muslim<sup>1</sup>, Aniesa Puspa Arum<sup>2</sup>  
[suyitno@unj.ac.id](mailto:suyitno@unj.ac.id)<sup>1</sup>, [aniesapuspa@gmail.com](mailto:aniesapuspa@gmail.com)<sup>2</sup>

Universitas Negeri Jakarta<sup>1,2</sup>

**Abstrack:** This study aims to: (1) produce a learning video for the subject which is appropriate to be applied as learning media for Pascasarjana student teknologi pendidikan, and (2) investigate the appropriateness of the learning video at pascasarjana UNJ in order to be appropriate to be applied as learning media. The development of the learning video pascasarjana UNJ employed the Research & Development method by Alessi & Trollip, consisting of three development steps, i.e.: (1) planning: determining needs and objectives, collecting resources, and producing ideas; (2) design: making the flowchart and storyboard and preparing the script; and (3) development: producing the video and audio, programming the materials, preparing the supporting components, evaluating, and revising. The result of the development research was a learning video was assessed by a media expert, a materials expert, and students as users of the media. On the whole, the tryouts showed good results in the appropriate category with the following details. (1) from the materials expert the mean score was 5.55, which was in the appropriate category. (2) from the media expert the mean score was 3.5, which was in the appropriate category. (3) from the small-scale tryout involving students the mean score was 3.5, which was in the appropriate category. (4) from the large-scale tryout involving students the mean score was 3.19, which was in the appropriate category. Based on the media appropriateness assessment, it can be concluded that the learning video is appropriate to be used as learning media at pascasarjana UNJ.

**Keywords:** developments, learning video, Alessi & Trollip

### INTRODUCTION

The development of information and communication technology (ICT) has an influence on the world of education, especially in the learning process. According to Rosenberg In Sutopo, Ariesto Hadi, with the development of ICT use there are five shifts in the learning process, namely: (1) from training to appearance, (2) from classroom to where and anytime, (3) from paper to on line "or channel, (4) from physical facility to network facility, and (5) from time to time cycle

ICT utilization patterns at the University include several things, as follows: access to libraries; access to experts; carry out online learning activities; provide academic information services of an educational unit; providing data search engine facilities; provide discussion facilities; providing alumni and university directory facilities; and others. The development of ICT utilization at the University depends on several supporting factors that must be owned.

In our view, the condition of good infrastructure will be very helpful, especially if the location is in urban areas. University support in terms of policy is supported by the support of the University's committee members who care about education and government support in education quality improvement program becomes an important thing in the development and management of ICT at the University. Besides the students was also very enthusiastic in ICT-based learning conducted especially if done by experts who mastered well. Various methods and forms of ICT-based learning that vary will enrich the learning process done at the University.

Some factors that must be considered in the utilization of ICT at the University so as not to hinder the development undertaken. The most important thing is the mastery of lecturers to the utilization of ICT in learning so that required experts who are still less available at the University.

Another thing that is felt to hinder the utilization of ICT at the University is the amount of investment that must be provided in order to perform the learning program. In addition to the mindset that is still just not on the side of technology, whether the reason is not cheap or other disability. 1) Mature planning of ICT development programs at the University, including design, implementation and evaluation aspects of the program. 2) The availability of specialists or specialists who handle the ICT sector is absolutely essential, with the competence or qualification in the field of information technology. 3) Adannya internet network can be used as a basis to build networking / networking between colleagues and as a source of learning that no limit. So hopefully will arise innovation and increasing creativity of existing elements at the University. 4) Increasing the ability of lecturers to be a must do considering the existing paradigm does not support the advancement of technology in general and ICT in particular so that the utilization of available facilities become not maximal.

Information and Communication Technology (ICT) today is not only a tool used in education but has been viewed as a necessity. At this moment we live in a digital society where ICT usage has been present everywhere. ICTs play a significant role in both personal and work affairs. This situation encourages all parties to live together with ICT in all aspects that require a better management pattern to get positive benefits.

Information Technology (IT) is a technology used to manage data, including processing, obtaining, compiling, storing, manipulating data in various ways and procedures to produce high quality and value information while Communication Technology (TK) is a technology that used to transfer various information so that appropriate, right on target, and have value. Although in practice, between IT and TK sometimes can not be separated from each other. ICTs are an integral equivalent that contains a broad understanding of all activities related to the processing, manipulation, management, and transfer of information between media.

According to Smaldido in Timothy at all (2011:120), media are carriers of information between a source and receiver.

According to Munandi (2008: 7-8), learning media can be understood as something that can convey and deliver messages from the source in a planned manner so as to create a conducive learning environment where recipients can conduct learning process efficiently and effectively.

Gagne and Briggs (1998: 4) say that the learning medium includes tools that are physically used to convey the content of teaching materials, or in other words the media is a component of learning resources or rides physical materials containing instructional materials that can stimulate students to learn. Visual media plays a very important role in the process learn. Visual media can facilitate understanding (eg through elaboration of structure and organization) and strengthen memory. Visual can also cultivate student interest and can provide a relationship between the content of subject matter with the real world. In order to be effective, visuals should be placed in a meaningful context and students must interact with the visual (image) to ensure the information process.

According to Timothy (2011:121), visual are two-dimensional material designed to communicate a message to students. They usually include verbal (teks or word) element as well as graphic (picture or picture-like) elements.

Audiovisual media, which is a type of media that contains no element of sound also contains elements of images that can be seen, such as video recording, various movie sizes, slide sound, and so forth. The ability of this media is considered better and more interesting, because it contains both elements of the first and second media types. Visual media that combines voice usage requires additional work to produce it. One of the important work required in audio-visual media is the writing of scripts and storyboards that require considerable preparation, design, and research. These include audio and visual media such as televisions, headphones, video players, radio cassettes, and recorders.

Video technology provides optimal benefits when used in accordance with the potential it contains. Video media gives users the opportunity to learn through sound elements (audio) and images (visual) simultaneously.

## **RESEARHC METHODS**

This study includes the type of research and development or known Research and Development (R & D). Understanding research and development is focused on the process, the research does not produce the object, while development produces visible and palpable objects. Development is an engineering process of a set of elements that arranged together to form a product (Ranberg, 1974).

Research and Development Method is a research method used to produce a particular product, and test the effectiveness of the product. The development model is the basis for developing the product to be produced. The development model can be a procedural model, conceptual model, and theoretical model. In this development research used procedural model because it is considered suitable with the development goals to be achieved that is to produce a product and test the feasibility of the resulting product where to achieve the goal must go through the steps certain to be followed to produce a particular product.

The procedural model is a descriptive model, showing steps to be followed to produce the product. On this development research will produce a video media product learning on dynamic promotional subjects that it uses development model according to Alessi & Trollip (2001) steps taken, namely:

1. Planning
  - a. Determining needs and objectives, needs and objectives cover what which will be known or can be done students after completing the learning.
  - b. Collect sources, such sources as reference books, original source materials, films or knowledge from others in the field that support video-making.
  - c. Generate ideas, this stage is brainstorming to generate creative ideas in development.
2. Design
  - a. Creating flowcharts, making flowcharts to simplify the course of the program, especially the implementation operations on the computer.
  - b. Creating a storyboard in writing, this stage includes plotting (drafting), writing and revising the storyboard along with the look, animation, graphics, and music, then validate it.
  - c. Preparing scripts, this stage includes narrative planning, instruments, animations on video.
3. Development
  - a. Producing video and audio, in this stage creating views, animations, graphics, music, narrations, and instruments that can support development.
  - b. Prepare support components. Programming the material, this stage is the stage of merging all the developed material including the application program that will be used.
  - c. Evaluate and review (testing and validation).

## **RESULT AND DISCUSSION**

### **RESULTS**

The results showed the average score on the test phase experts as follows. The average score of a material expert is 3.55 the product is considered good and the media expert is 3.50 which means the product is very good. Then in the small-scale field trial phase to 5 students the average score for small field trials of 3.46 which means the product is considered very good and at a large field stage of 3.19 which means the product is considered very good.

### **DISCUSSION**

Observation activities conducted in August - September 2017 in the process of learning activities in ICT courses known that student achievement is still relatively low, auxiliary media in the process of

learning practices only in the form of jobsheet, lecturer teaching by reading the worksheet and provide a power point that is not able to attract attention of students, so that students tend to be passive and quickly bored. For that we need the right learning media to be able to deliver the material practice clearly and completely. The appropriate medium for

meet the need is a learning video, it is necessary for the development of learning videos.

After a complete and clear needs analysis then the next step is to collect reference sources that support the development of learning videos.

After the source obtained complete then researchers consulted with some material experts and media, exchange opinions with lecturers and colleagues to generate ideas for subsequently developed into a video learning media. After creating a flowchart and then proceed with making a storyboard in writing. Storyboard is made to make it easier to visualize the idea to be more organized, followed by development stage or video production.

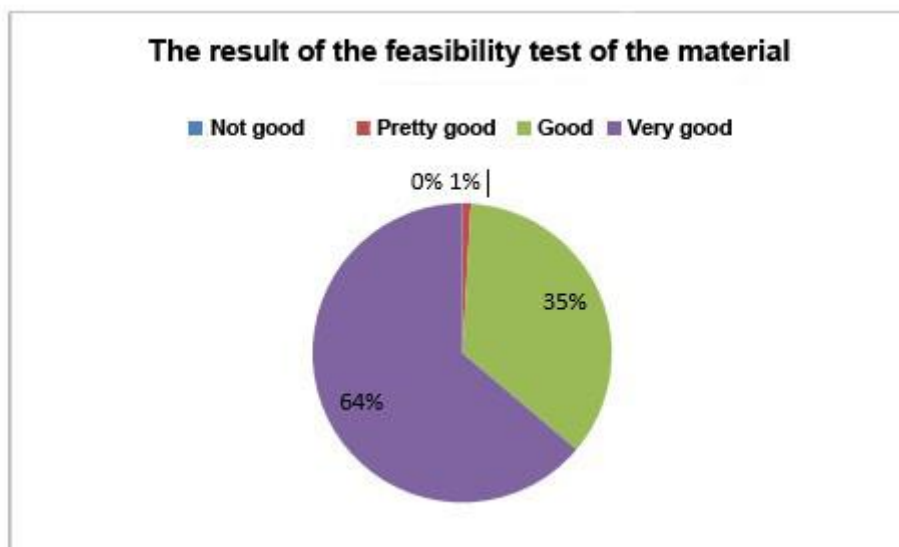
This audio and video production process contains shooting (shooting video), downloading video footage on youtube, and sound recording according to the demands of storyboards and scripts that have been made before. Early stage which is done is shooting or shooting video. Shooting is the stage that translates the script into the actual view. After shooting the video then proceed with downloading video footage and pictures about ICT on youtube. Then the next step is to record the voice of the narrator is done by dubbing technique.

Video and audio are customized with existing support devices for easier use by anyone. For videos using mpeg format, photos use jpg format while for audio use wav. After producing the product in the form of learning video, then before doing the test first done validation to media expert and do revision if there is suggestion from experts.

The determination of the media's worth of dynamic promotional learning videos is measured on the basis of the assessment of experts, materials experts, media experts and lecturers. The data obtained shows the validity level of the video's eligibility as a learning resource. The advice contained in the instrument is used as a consideration for further video improvement. Here are the test results from each validator.

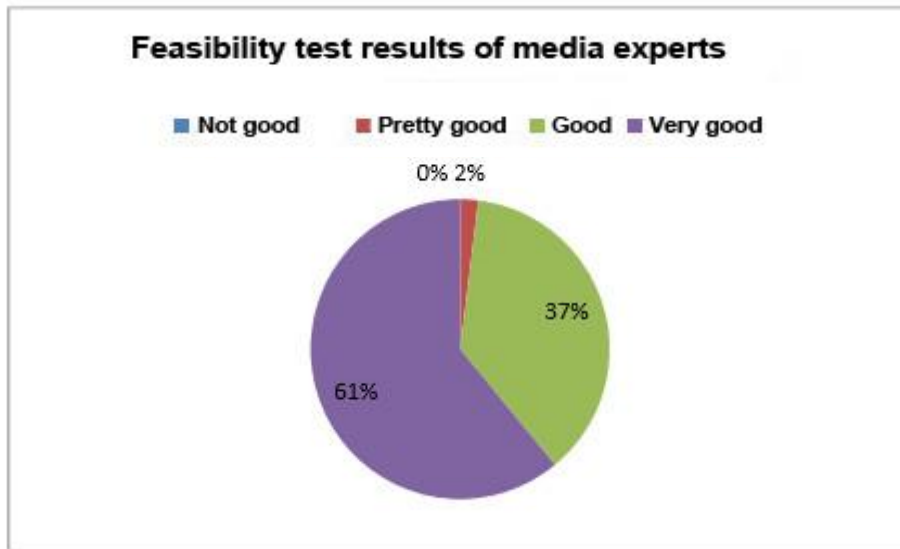
The result of the feasibility test from the material expert has an average value of 3.55 with a percentage of 63.85% which is categorized under the Eligible criteria.

Figure 1. Diagram of the feasibility test of the material expert



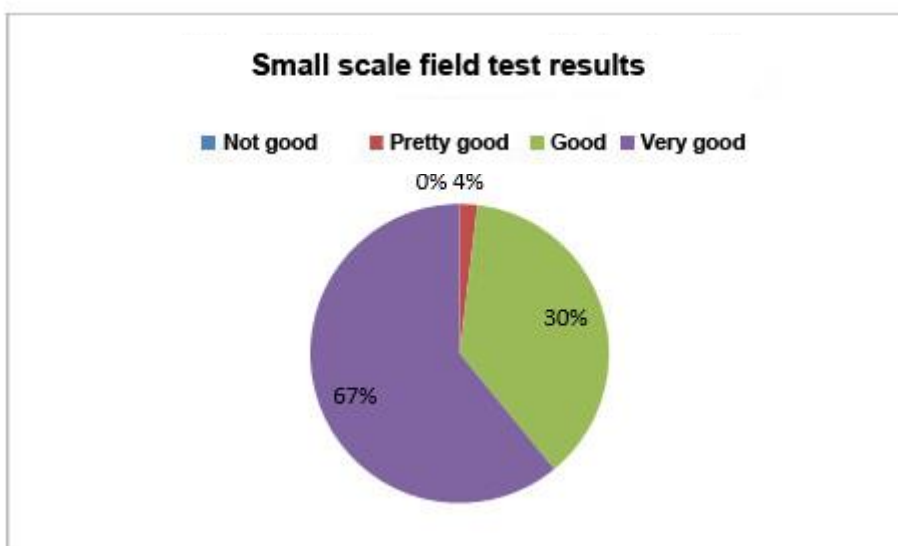
Similarly, feasibility test results from media experts have a value of 3.51 with a percentage of 60.95% are categorized as Eligible. Based on these results it can be concluded that the learning video media on ICT subjects are included in the Eligible criteria.

Figure 2. Diagram of the feasibility test of media experts



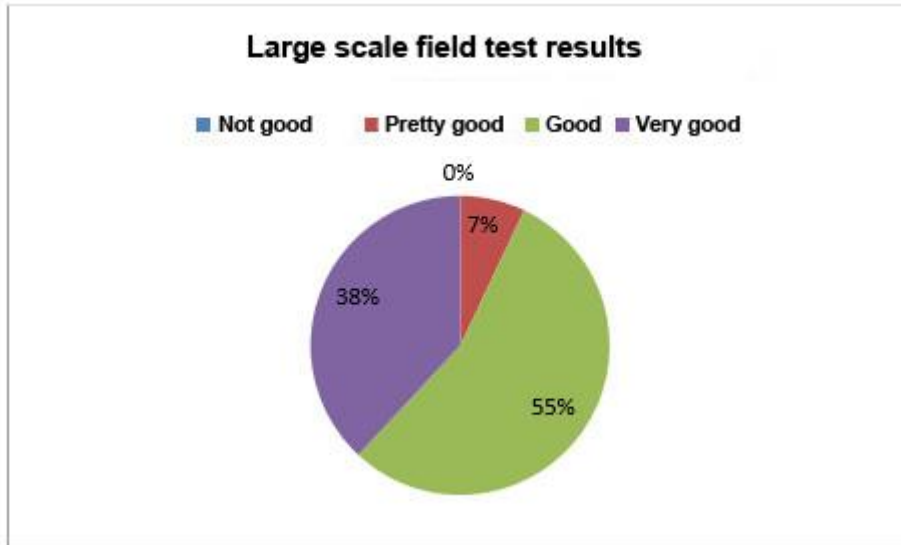
Then a small-scale test is done to find out students' opinions as users while simultaneously measuring media feasibility in terms of users get the average value of 3.46 with a percentage 67.5% categorized under the Eligible criteria.

Figure 3. Diagram of small-scale field test results



After a small-scale test, large-scale tests were performed and obtained a mean value of 3.19 with a 38.05% percentage which is also categorized under the Eligible criteria.

Figure 4. Diagram of large-scale field test results



Based on these results can be concluded that the video learning media in the course of ICT Eligible to be used in the learning process.

## CONCLUSION

Based on the results of the implementation of activities that have been done, can be drawn some conclusions as follows;

1. Students' knowledge of making learning video in general is still inadequate before the training runs. This is shown from the pre-test results.
2. Submission of knowledge about making video learning to students can increase knowledge as well as a stimulant for students to be more creative to create interactive materials that can be used in the learning process.
3. The results of the test of material experts and media experts in measuring the quality the feasibility of instructional video media in ICT courses obtains a viable category. Meanwhile, from the opinion as a user of learning video media in ICT course also obtained the feasible category, it can be seen from the result of the research which obtained in measuring media feasibility of user side by the students in small scale field trials and large scale field trials.

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