

Video Tutorial for Animation Technology Subject

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Abstract: Animation Technology is one of the courses that must be taken by a Creative Multimedia student at the Faculty of Technical and Vocational Education, UTHM before graduating. In this course, there are some software used to produce animation. The main software used by students is the Adobe Flash software. The Adobe Flash is a software that is often used for creating animations and integrating videos into web pages. Therefore, this study aims to design and develop a web application of practical learning video tutorial Adobe Flash to enable users to view the videos tutorial related to Adobe Flash software. Developers have been using the Hannafin and Peck Models for the development process of these practical learning video tutorials. In addition, there are two types of instruments that have been used in this project which are checklist forms and an expert confirmation. The checklist form is used for expert assessment for the development of practical learning video tutorials. There are three (3) experts evaluating the functionality of Adobe Flash CS6's practical learning videos online. The findings show that the expert assessment is based on aspects of content design, interface design and interaction that are suitable with the standard for developing web-based learning. Overall, the development of web-based learning using video tutorials for Animation Technology subject can be one of the teaching aids in teaching and learning process especially during Pandemic Covid19.

Keywords: Application Development, Web Application, Video Tutorial

1. Introduction

E-learning is still considered a new emergence compared to the western countries where e-learning has become a fundamental method in the learning process to add value to the traditional learning techniques in Malaysia. E-learning means electronic learning that uses Information and Communication Technology (ICT) such as the internet and networking to deliver learning teaching processes. E-learning can be categorized as lifelong learning and even well-received in the global community. According to the statement of Hazwani and Noor (2017), the community is aware of the importance of ICT thereby

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accepting the concept of e-learning as a temporary learning model for the future. E-learning seeks to accelerate teaching and learning processes more effectively. E-learning acceptance not only to convert traditional modules, program costs and classroom in the online version, and even the use of ephemeral technology can contribute to a flexible teaching and learning environment (Omar & Ahmad, 2009).

The main problem faced by students in the Teaching and Learning process for the Animation Technology course is the difficulty in understanding the conceptual topics of practical tutorials related to Adobe Flash. The education system today is conventional learning. Coinciding with the above phenomenon, it is concluded that the development of web application video tutorials for practical learning Adobe Flash CS6 online is suitable as a learning medium for lecturers and students. In other words, this Adobe Flash CS6 practical learning tutorial video is made as an additional ABBM where students can access or refer to the practical learning tutorial video repeatedly as a tutorial video no matter where they are.

1.1 Web-Based Learning

The Internet in modern times has become a basic necessity and becomes something that cannot be separated for most people. There are internet users and web-based learning or better known as web applications (apps). Internet users do not have to understand how web pages are created, but they are different from creators, where creators should be able to understand how internet applications can be created, what programming languages to use, and most importantly, how to compile programs to create internet applications up to pages perfect web. According to Agustiniingsih (2015) web applications are applications that use browser technology to run applications and access through computer networks.

Web applications are programs stored on the server and transmitted over the internet and accessed via the browser interface. From the definition, it can be concluded that web applications are applications that are accessed using a web browser through an internet or intranet network. Web applications are also computer software encoded in programming languages that support web-based software such as HTML, JavaScript, CSS, PHP and more.

1.2 Video for Online Teaching and Learning

The use of video as a teaching and learning material in the lecture room is no stranger. Educators have identified that video-based teaching is able to attract interest, increase motivation and learning experience. Variations shown for material presentation teaching such as using online video helps to get information which is clearer and more precise according to (Agustiniingsih (2015).

The use of video elements is one of the multimedia elements that can help educators in the teaching and learning process. According to Noraffandy and Azilah (2010), in the past, video media required high production costs, but educators today can produce their own videos based on their ideology and creativity. For example, the use of video can be utilized in teaching in the classroom as a practical tool for enhancing the quality of methods existing conventional. Not only that but a combination of clear video display and audio usage can indicate the real situation (Sidek, 2016).

As for example, practical teaching steps for Adobe Flash software can be shown through video so that students better understand. Hence, students who have been left behind in practical work, they can repeat the section so that they can master the topic for related learning Adobe Flash CS6 software for Animation Technology courses.

2. Methodology

The developer selected the Hannafin and Peck (1988) design model as a guide. The researcher found that Hannafin and Peck models are one of the most suitable methods because they are more concise, clear and easy to use in the development of practical video tutorials.

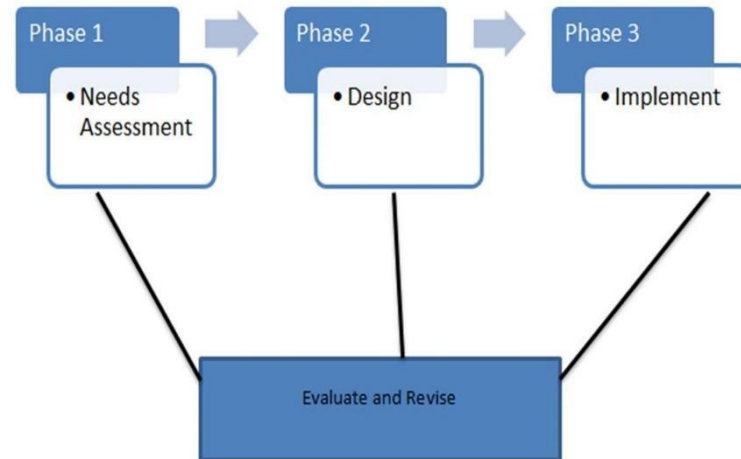


Figure 1: Hannafin and Peck (1988) design model

Figure 1, Hannafin and Peck (1988) design model emphasizes the three-phase evaluation and repetition process to ensure that the information presented is accurate. It is important that developers do not have to wait until the end of development for the evaluation process, but developers should evaluate every phase that is implemented on an ongoing basis. Hence, this situation can detect problems that arise in the early phase and improvements will continue to be carried out at every phase to ensure the quality of the product being developed. This model consists of three main phases, namely ‘Need Assessment Phase’, ‘Design Phase’ and ‘Develop & Implement Phase. In addition, each of these phases will go through an ongoing evaluation and review process.

At an early stage, researchers have identified courses that need to be taken by FPTV students, especially for the Creative Multimedia program. The researcher has decided to choose the Animation Technology course after getting the view from the supervisor that this course needs emphasis because practical learning in the workshop is quite difficult for students to do if the practical activity is not shown repeatedly. In addition, the researcher conducted interviews with lecturers who teach this course to discuss the topic.

The design phase is the second phase in the Hannafin and Peck models. It is used to transfer the information found in the need’s analysis phase to a physical sketch that is used during the development process. In this phase also the developer will design three types of designs. Among them is the information design where the developer will determine the learning strategies and learning theories that will be applied in the development of Adobe Flash CS6 practical learning video tutorials.

The development and implementation phase are the third phase in this model. In this phase, all the key elements designed in the previous phase are translated into a more practical form. The practical learning tutorial video that has been developed will go through the implementation process, it aims to see how the developed learning tutorial video works and also to assess the expert acceptance of the video. The practical learning tutorial videos that have been developed have then gone through an implementation phase process which refers to the video evaluation process. At the end of the phase, the developer will make an expert assessment of three people. In this phase, the developer will make a process of evaluation and iteration until successful before proceeding to the last phase, which is the development and implementation phase.

Therefore, this design model is in-class ability to receive lessons primarily for practical work in Adobe Flash CS6’s practical tutorial teaching for Animation Technology courses. The location chosen is the Faculty of Technical and Vocational Education (FPTV), Universiti Tun Hussein Onn Malaysia (UTHM). Development of practical video tutorials Adobe Flash CS6 online was developed to make it

as one of the Teaching Aids for the convenience of students who took the Animation Technology course (BBU30303).

Researchers used Adobe Flash CS6 software which is one of the capable software to develop a quality animation. This software was selected in developing Adobe Flash practical learning videos. It is suitable for use because it is easy to use. Moreover, this software is more interactive compared to other software. Adobe Flash CS6 is used to display video tutorials to students to learn Adobe Flash software. Adobe Camtasia Studio 8 is used to record screens to show students step by step use of Adobe Flash practical tutorial. It also works to record the voice of the developer in order to increase student comprehension in learning the practicalities of Adobe Flash. In addition, the developer also included subtitles on video tutorials so that students better understand. Therefore, Adobe Camtasia is very suitable for use in voice recording for learning tutorial videos.

3. Results and Discussion

Figure 2 shows the main page web-based learning for Animation Technology subject. This web-based have five menus (Home, Instruction, Video Tutorial, Quiz and Frequently Asked Questions (FAQ)).



Figure 2: Main page web-based learning

Figure 3 show instructions for a video tutorial. Before users use this product, they should read all the instructions before starting the teaching and learning process.

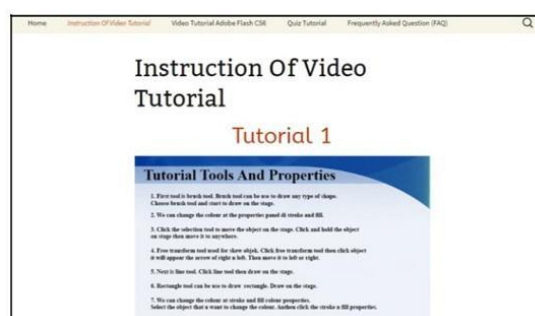


Figure 3: Instruction of video tutorial



Figure 4: Video tutorial interfaces

Figure 4 show the video tutorial interfaces. Developers prepared 25 video tutorials for learning about Adobe Flash CS6 software. Figure 5 shows the quiz page interface provides ten (10) questions that cover the entire Adobe Flash practical video that students learn. The questions are random. The quizzes have been prepared according to the students' level of understanding of a relevant learning topic. Users need to answer all the quiz questions to find out the level of understanding because there are total question marks after completing all the quiz questions.

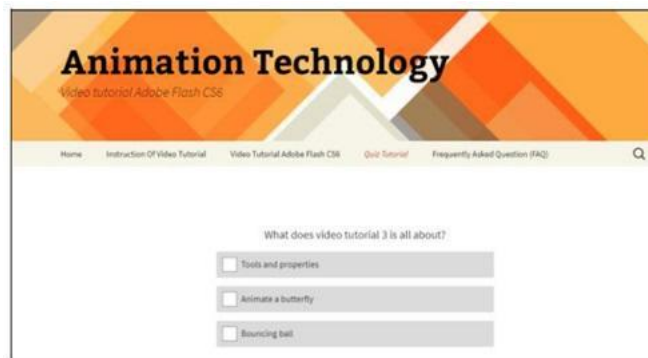


Figure 5: Quiz interfaces

Table 1 shows the developers have analyzed the views and expert reviews that have been proposed by the three experts on the functionality of web application development video tutorials practical learning Adobe Flash CS6 online. Improvements have been made to content design, interaction design and design interface. Expert views and comments on the development of this product. All three experts have given suggestions for improvements to the products developed. Among them is that the expert suggested changing the title of the lab sheet content to the instruction of the video tutorial. In addition, the first expert suggested adding the title 'Animation Technology' on the developed web banner. The second expert on the other hand commented the web background was too blank and he also suggested including assessment questions or quizzes. The third expert recommends including the video on the main web page. Also, the font size is too large. Not only that, but he also suggested using the scroll down button so that users can easily make the desired video selection. In addition, experts suggest that developers include FAQ for the developed web. Overall, comments and improvement actions taken by the developer.

According to the statement of Sidek (2016), web-based learning is able to attract students to learn. Computer -based learning can also help students in speeding up the R & D process. For example, video development is a very effective medium in influencing student behavior as well as impacting teaching and learning. In addition, videos help educators a lot to facilitate teaching activities while students have more fun to learn. Video learning is a combination of visual and audio where visual is to stimulate sight and audio is to stimulate hearing as stated by (Nuari & Ardi, 2014). The developers have used some

software to make the video presentation of this learning tutorial more interesting. Adobe Photoshop software is used to edit and produce instruction of video tutorials in .jpg format.

The experts also agreed that the description given in the video tutorial is explained in detail where the developers have used the narrator in the video tutorial of practical learning developed. This is supported by the statement of Mohsin and Hassan (2011) that the use of multimedia elements such as audio and video in learning can help improve the understanding of users such as students of something difficult and complex by seeing for themselves the steps that are difficult to express orally through text and graphics.

In addition, the use of audio background music in this learning video tutorial is agreed by all multimedia experts where it is supported by the statement of Anuar and Zamzuri (2015), where the effect of lively music can increase motivation among students to be more interested in continuing the use of an ABBM. All experts also agreed on the use of audio included in the learning tutorial video which will be played automatically when the user presses the video button found on the video tutorial interface.

The use of buttons in video tutorials also plays an important role in a web application. For this video tutorial web application, experts agree with consistent button position on each web interface page. In addition, the design of buttons with labels on the design is also agreed by all experts which is also supported by the statement of Anuar and Zamzuri (2015) where the control buttons will be labeled with words or icons as a guide to purpose and direction. In addition, the button to the next display also works well and its function can be easily identified.

4. Conclusion

In conclusion, the development of web application video tutorial for practical learning Adobe Flash CS6 online can be used as ABBM and support for video tutorial for practical learning where the provision of 25 video tutorials related to Adobe Flash CS6. In addition, the development of this product can help students and teachers in the teaching and learning process. Therefore, this web-based learning can be an efficient in pandemic covid19 as a teaching aid in Animation Technology subject for Undergraduate Program especially for Multimedia Creative Program.

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