MICROSOFT OFFICE VIDEO TUTORIAL
(TANGADAN ELEMENTARY SCHOOL)

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INTRODUCTION

Project Context

People nowadays are into modernization. Computer is one of the greatest inventions of humanity, and it does not end there. Right now, developers keep on adding something new to computers and make efficient than those before. We live in age known as "modern age" or as we can see it the "techie-age". Everything we do is connected with technology. It constantly seems to seep its way into our daily routines. Without technology, life would be more difficult to achieve. The task of technology is to create a better and easier way of living for ourselves and for the world. Computers and technology are now part of our daily lives. We've come upon depend on them to function and to live.

In recent years, technology continues to evolve and improve its capability affecting every individual's daily routines. Technology has an impact the different facets of life and certainly changed and redefined the way we live (Oak, 2011). One of the most common technologies used by people around the globe is computer. According to International Telecommunications Union or ITU, in 2010, the ratio of Filipino computer users over the Philippine's population results in 29,700,000 over 99,900,177 or 29.7% of our population. The users of computers vastly increased and prospered since it was invented. Nowadays, computers in any become an integral part of our lives due to its

functionality. The purpose of computers has engaged into complexity which made everything possible beyond our thoughts.

Since wide range of computer usability, one of the emerging areas of computing is video tutorial. Depending on the contents and purpose.

Education has change significantly in the last twenty years. One of the main reasons education has undergone so many changes is because of technological development (Lebedev, 2010). Education technology is the effective use of technological tools in video tutorial. As a concept, it concerns an array of tools, such as media, machine and networking hardware, as well as considering theoretical perspectives for their effective application.

Essential components of video tutorials are the computer hardware and software, information and knowledge to people at different times and locations. Devices that permit access to these video tutorial now no longer need to be the fixed desktop computer. The mobility and multimedia capabilities afforded by laptops, palmtops (also known as Personal Digital Assistant, PDAs), mobile phones, and media players (e.g. MP3 Players), shatter our notions of where and by what it means video tutorials activities can take place. While we often find video tutorials, we include a range electronically networked Information and Communication Technology (ICT) via which learning can take place. While we often find video tutorial reified as a particular course management system, its flexibility lies in the way new technologies are

quickly appropriated into the video tutorials toolkit. This is possible because of continuing efforts to cross hardware platforms. At its basis, video tutorials, like all other video tutorials enterprises, depends on hardware to process digital; As we will discuss below, equally important in this technological mix are the people who use the systems – teachers, instructors, administrators, pupils – each bringing to the video tutorials enterprise their ideas of how teaching, learning, and communication should be enacted. Educators have long been appropriating technologies into the classroom, from radio and television, records and record players, video reels and projectors, to today's computers, CDs, DVDs, podcasts, and more. What the digital revolution has done is free the information and its carriers from the classroom, making the information available in ever increasingly mobile ways. What is often forgotten is how of each of these technologies performs slightly different way of coding and decoding data and information, at times enhancing one mode of communication over another, but each changing where and when we receive information and communication. The following presents a brief historical background to emphasize that computing technologies represent the current culmination of many years of electronic encoding protocols and devices, each with its own limits and affordances (Andrews & Haythornwaite, 2007).

Video tutorials is a typically this means using a computer to deliver part, all of a course whether it's in a school, part of your

mandatory business training or a full distance learning course. Video tutorials is the use of electronic education technology in learning and teaching. That's why the proponents suggested at Tangadan Elementary School to adopt some education changes by the use video tutorials.

Tangadan Elementary School Video tutorials are mainly useful for elementary levels for a video tutorials. This video tutorials will help manage the activities inside the classroom manually like teaching and giving exercises for learners through the assistance of the teachers. Through computerization of all activities inside the classroom, this will help the teachers to have the attention of pupils.

Statement of the Objectives

This study aimed to develop MS Office video tutorials for Tangadan Elementary School.

Specifically, it aimed to achieve the following:

a. identify the functional and non-functional requirements of the Video tutorials.
b. develop the features of the Video tutorials Tangadan Elementary School.
c. test the usability of the Video tutorials along:
    a. Efficiency
    b. Attractability
    c. Helpfulness
    d. Learnability

Purpose and Description

MS Office video tutorials is mainly useful for elementary levels for a video tutorials. This video tutorials will help manage the activities inside the classroom manually like teaching and giving exercises for learners through the assistance of the teachers. Through computerization of all activities inside the classroom, this will help the teachers to have the attention of pupils.

Administrators. The output of this study will provide better program for the administrators, to help the teachers in teaching. The administrators are the one who will approve the proponents study for Tangadan Elementary School if they want to implement it or not.

Teachers and Future Teachers. The output of this study will provide a better program for the teachers and future teachers. This study will help them get the attention of pupils easily.

Pupils. This research helps the pupils learn better. It aims to attract the learner through the use of different types of graphics such as animations, images, videos, etc., so that they can concentrate with their studies.

Proponents. This study will help the proponents enhance their programming capabilities. Because of this study the researchers can have their bonding moments while the proponents creating the system.

Scope and Limitation

MS office video tutorials for pre-school levels was used at Tangadan Elementary School. The system has an educational animated and non-animated graphics and videos that gave learners an entertainment to learn more and explore topics. The MS office video tutorials includes exercise to evaluate the learners if they learned well on the topic that had given. This video tutorials only MS (Microsoft office 2013) which is consist of three topics (word, powerpoint and excel) to all primary levels.

The video tutorials does not have any video streaming and videos are not downloadable. It doesn't have the capability to communicate with the learners. The system cannot answer what a particular pupil wants to ask. The system is not an online basis.

Chapter II

REVIEW OF LITERATURE

Everyone has experienced traditional learning or the so called face to face learning. Traditional learning is an ancient method of learning that conducted by a teacher gathering students in places such as classes, labs or seminars to study and learn about different subjects. This method of learning has been practiced around the world in all levels such as kindergartens, primary, secondary, high schools, colleges and universities. In traditional learning environment, teachers and professors have various teaching styles but the most popular traditional teaching style is teaching by telling [Schroeder (1993) quoted by Ebrahim Ali (2004), Traditional learning method similar to any other method has its own advantages and disadvantages that are more or less in many cultures. Traditional classroom advantages: Immediate feedback, being familiar to both teachers and pupils, motivating pupils, and cultivating of social community. Disadvantages: Instructor-centered, time and location constraints, and more expensive to deliver. (Zhang et. al. 2004).

According to Gogos (2013) the term video tutorial exists since 1999. The word was first utilized at a CBT systems seminar. Other words also began to spring up in search of an accurate description such as "online learning" and "virtual learning". In 1924, the first testing machine was invented. This device allowed students to tests themselves. On 1954, BF Skinner, a Harvard Professor invented the "teaching machine", which

enabled schools to administer programmed instruction to their students. It wasn't until 1960 however that the first computer based training program introduced to the world. This computer based training program or CBT program was known as Plato Program Logic for Automated Teaching Operations. It was originally designed for students attending the University of Illinois but ended up being used in schools throughout the area. (Roberta Gogos – History of E-Learning).

Broad Bent (2010) identified four types of video tutorials namely: informal, self-paced,leader-led and through performance support tools. Informal video tutorial, a leaner could access a web site to find relevant information. Self-paced video tutorials on other hand refers to the process whereby learners' access computer based or web based training materials at their own pace. Leader-led video tutorial as the name refers to an instructor or tutor or facilitator leading the process. This type can be further be divided into two categories (1) learners accessing real-time (synchronous) learning materials and (2) learners accessing delayed learners materials (asynchronous). The fourth and last type of video tutorials described is through the use of performance support tools which refers to materials that learners can use to help them perform a task.

According to Iskander, *etal,* (2010) there are a lot of requirements that we could present to a video tutorials. Along with functional requirements there are exists non-functional requirements. One desired

non-functional property of video tutorials usability. If usability of a video tutorials is good, then it means the user; can learn to use the video tutorials without any problems, can quickly complete frequent tasks, can easily recall how to use the video tutorials even if he/she has not used that for some period of time, can quickly recover from the errors that occur during interacting with the video tutorials.

In addition to the user performance requirements, video tutorials products also operate within a set of functional requirements. For example: does the user need a built-in testing or remediation functions to maximize learning? Should remediation be automated or available on request? Does the learning strategy require a glossary or appendix? Does the video tutorials product need to track the amount of material a learner has completed, present learner feedback in response to answer test questions or provide a printable users guide? Does the video tutorials product need to track test scores to allow certification to be granted in accordance to a governing organization? Establishing functional requirements helps us ensure the video tutorials will meet the business needs of the users and of the development team. Failure to property identify requirement makes is virtually impossible for the finished on time and within the budget (Jury, 2007).

Functional requirements of the various modules were assigned to each student who then utilized various tools, including, for example, AcclaroDFSS for dynamically capturing the information architecture

using an axiomatic design approach, after that overall application architecture was established. A design matrix was generated with functional requirements that could be hierarchically decomposed for analysis, as needed. Non-functional requirements, such as performance needs for the video tutorials, were develop using Quality Function Deployment (QFD). Risk management was done by utilizing a design structure matrix (DSM) and Failure Mode and Effects Analysis (FMEA) techniques, which can be streamlined using Acclaro tool for axiomatic design. Then UML and SysML are used for detailed design according to the analysis produced during the Elaboration Phase (Suh*et al*, 2013).

Non-functional requirements define the overall qualities or attributes of the resulting video tutorials. Non-functional requirements place restrictions on the product being develop, the development process, and specify external constraints that the product must meet. Examples of NFR include safety, security, usability, reliability and performance requirements (Prof. Cremers&Alda, 2006).

In order to implement a functional and effective video tutorials virtual community, our first step is to investigate its main functional features. These functional features should differentiate video tutorials environment from other virtual environment (3D or not), which are designed and implemented for general use. Every virtual environment that has the following features can be characterized as a video tutorials community: (I) the environment should be explicit designed. It can be

visited by users, who have different roles and rights. It should be represented by various representation forms, which can range from simple text 3D words. It should be various video tutorial scenarios and have common features with a physical space; (II) the educational interactions in the environment should change to simple virtual space to communication space; (III) the learners in the environment should not be passive but they should be able to interact; (IV) the video tutorials that supports the video tutorials environment should be able to integrate various technology. According to the previous stated features of an e-learning video tutorials community the main requirements that should be met are the following: the video tutorial environment should be based in templates that ensure a well-established community, able to handle users, video tutorial material, user interaction, and different learning scenarios. The environment should offer various synchronous and asynchronous communication channels: audio, e-mail, forums, shared-objects, application sharing, gestures. The environment should be populated by users who are represented by 3D avatars. The environments should be aesthetic and ease to use, (Fong, 2002).

For the previous mentioned video tutorial application problems, this paper presents a semantic Web services based solution that does not require centralized, control in the case of integrated distributed learning resources and personalized learning services. Video tutorial based on semantic web services includes two functional features: (1) MS Office

video tutorials should have certain "intelligence", which can use ontology-based knowledge representation to represent domain knowledge, and can achieve semantic understanding, so that to reason out appropriate learning materials for each user. Let the computer understand the user's intent can better meet the request of users. Sometimes the information entered by the user may not be accurate or complete, reasoning technology that can find the adaptive information is needed. (2) With the semantic Web service description, service oriented architecture builds video tutorials that can achieve system interoperability. (Wu, 2011)

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