

**DESIGN AND IMPLEMENTATION OF INTERACTIVE MULTIMEDIA APPLICATION FOR  
INCREASED LEARNING FOR VIRTUAL STUDIO LIGHTING TUTORIALS.**



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The entire Studio Lighting program Lecturers in Photography department from Perak

## 5.2 Enhanced Executive Summary

This research describes the design and implementation of virtual interactive multimedia design applications to be used mainly by photography students to increase their understanding of basic lighting course. In education, traditional teaching and learning is no longer the order of the day. In line with this development in technology the researchers sets out to investigate what are the implications of virtual tutorial in studio lighting subject of the Diploma and Creative Imaging in Photography program in Universiti Teknologi Mara. It is believed that the Virtual Tutorials are effective in promoting teaching and learning among the students. The applications named a virtual studio lighting tutorials.

The researchers have covered of all the topics that include in the studio lighting subject for photography students. The topics are Direction of Light, High Key lighting, Low Key Lighting and lighting for glassware. This application expose students to focus better. According to research conducted, students remember better the contents and information when it's represented and learned both visually and verbally in interactive way. The lacks of visual educational in interactive multimedia tutorial materials that support the delivery of teaching in classroom for the photography students create barriers to effective teaching and learning. For this reason the virtual studio tutorials is chosen to overcome the problem. Neo Mai & Ken Neo TK, (1998) pointed out that the uses of multimedia technology are an innovative and effective teaching and learning strategy. The researchers have set to conduct and investigate how to create a fun, interactive, easily understood, available and efficient way for students in the diploma level to use various tutorial simulations of basic studio lighting. Against this backdrop the researchers sets to measure if the students and lecturers find it effective to use the multimedia as an effective learning and teaching tool for the photography department.

The results are that both the students and lecturers find that the virtual tutorial is effective compared to the conventional method. It was also very well received by the respondents. Many students responded saying it helped them with the understanding of the subject matter in studio lighting. For many others the virtual tutorial helped them to remember the subject. All in all the students were able to apply the lesson studied rather than memorize it. For the lecturers it was equally good as it reduces their time to teach as the students understand better and faster with the Virtual Tutorial.

This is now probed into the studio lighting subject specifically.

### 5.3 Introduction

The industrial problem is that the market needs good photographers. In order to be a good photographer one needs to be strong in the effects of lighting. In most cases learning is through trial and error. The studio lighting subject requires some practical work to be done by the students. Usually there are many factors to be taken into consideration for a student to fully grasp the topic well. Taking this as the basis of the problem the researchers study if the multimedia tutorial offers a solution of the problem. In order to study this problem, the researchers study the effectiveness of the Virtual Tutorials in studio lighting for the photography department in UiTM focusing on the diploma program. Ornstein & Lasley II, (2000) believe that, the use of technology systems require using variety of approaches, techniques, interactive and information sources that can maximize curriculum content and improve student learning.

Photography has many subjects being taught in the photography curriculum for photography (diploma) students in UiTM. Among the subjects are Elements of photography, commercial, illustration, photojournalism, history photography, photo science and mathematics, Black & White and large format, color photography and studio lighting. All these subjects are being taught during the study period in UiTM. The photography course at the diploma level emphasizes practical and theoretical aspects. This is to ensure students are able to apply the concepts in all situations as they enter the working world later. As a photographer in any fields like photojournalist, advertising or fashion, they need to apply lighting skills to produce an excellent assignment.

The current perception of the public and the educational stakeholders are that the educational institutions are not producing graduates who are practical and problem solvers. These graduates are deemed not to meet the demands of the society and the market as a whole. In this regard the photography education and training are not exempted. The society and market needs graduates who are more tuned to meeting the demands and needs of the time.

The lack of visual educational in interactive multimedia tutorial materials that support the delivery of teaching in class room for the photography students in UiTM create barriers to effective teaching and learning. The reason for choosing the photography education for this research is because the subject is quite difficult to explain to students in theoretical approach, otherwise. For this reason the virtual tutorial is chosen to overcome the problem.

The study will show the effectiveness of virtual tutorials in teaching studio lighting for diploma students in UiTM. This will improve the student content retention, improve teaching efficiency and reduce time to train studio lighting students.

To ensure students are well prepared for this subject before they commence activities in the photography studio the students will be exposed to the virtual tutorials in the classroom. This prototype will consist of all the information and practical aspects needed for the student. The students would be required to study, explore and complete the exercises through the prototype before commencing the real activities by using studio equipment. This way the multimedia demonstration can be played and viewed as many times as the students want until they understand the concept and theory. Then the students can progress to use the studio equipments to practice their knowledge. These new approach of teaching and learning facilitates the need to inculcate skills transfer as well as develop subject specialist skills. The advantage of this prototype is that the experiences are real and results can be achieved immediately by using the interactive exploration tools in this prototype.

It is expected that interactive medium is most engaging for students. The interactive tutorial not only generates more interest but allow learning through exploration and investigation. The importance of the virtual multimedia tutorials are in providing better understanding of the subject matter and information that was taught. It is also expected to provide a greater choice of learning method and enhances the learning experience.

For the students benefit, this research can provide alternate quality learning and enhance understanding about the studio lighting subject. "Learning will take place more quickly if we want to learn and are ready to learn" Moss (1987).

For the lecturers benefit, this study can help create effective and unique learning environment. It is now the time for the lecturers to be exposed to interactive multimedia tutorial incorporating images, sound, animation and text that have potential to transform educational practices in a way that were never before possible. So that lecturers will be able to utilized this new educational tool to provide a better learning experience for his/her students.