# Role of Enhancing Visual Effects Education Delivery to Encounter Career Challenges in Malaysia

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# ABSTRACT

Problem-based Learning (PBL) is one of the most effective methods of instruction that helps Visual Effects (VFX) students to be more adaptable at encountering career challenges in Malaysia. These challenges are; lack of several important requirements such as, the basic and fundamental knowledge of VFX concepts, the ability to understand real-world problems and to convert ideas into VFX solutions, the ability to attain and retain up-to-date knowledge of VFX concepts, and perhaps most importantly, the ability to come up with solutions to real-world problems. Its role in helping students; thus, encompasses improving the level of meaningfulness of their learning experience, and their skills in terms of comprehension, knowledge retention, problem-solving, self-directed learning, as well as interpersonal skills. The use of PBL helps VFX students to cope with the encounters of the career challenges in Malaysia that may be enhanced by focusing on a faculty-wide approach as compared to applying it on a course at a time. Moreover, such methods of enhancing VFX education delivery in Malaysia are to encourage reflective practices and PBL based dialogues on VFX, and to increase the level of VFX competence of instructors through improved training methods.

## **KEYWORDS**

Career Challenges, Malaysia, Teaching and Learning, VFX, Visual Effects

## INTRODUCTION

This research is based around the concept of enhancing Visual Effects (VFX) education delivery to encounter career challenges in Malaysia. There is a rising demand for VFX professionals in the country due to the recent boom noticed in the local film and television industry. Hence, it would be wise to tap into this opportunity to enhance the country's level of VFX education so as to increase the potential of students to overcome the challenges they are likely to face in a professional setting. For this purpose, the main method that has been looked into in this research is the use of problem-based learning (PBL) which has been used to deliver VFX modules for improved student learning and capability in order to encounter career challenges in Malaysia.

## **RESEARCH BACKGROUND**

## **Problem-Based Learning**

Problem-based methods for education have had a rich history of promoting learning that is based on experience. Research and theory alike in psychology show that by giving students the chance to learn with the help of experience that comes of solving problems, they may get to learn strategies both regarding content as well as thinking. Problem-based learning (PBL) is a method of instruction that helps students learn via facilitated problem solving techniques. In PBL, students learn through complex problems that are not defined by a lone correct solution or answer. Instead, students get to work in collaborating groups to identify knowledge they will require to be able to solve the particular problem at hand. In the process, students practice self-directed learning (SDL) and they then apply their new-found knowledge to the particular problem they face, and subsequently, reflect on whatever they have learnt, and the efficacy of the methods involved. The instructor's role in a PBL setting is to facilitate the students' learning processes rather than spoon-feeding them with the knowledge. The main objectives of PBL include assisting students to develop flexibility of knowledge, effectiveness of problem-solving skills, SDL-related skills, effectiveness in collaboration-related skills, and increased learning motivation that is intrinsic in nature (Hmelo-Silver, C. E., 2004).

There are many benefits of using problem-based learning to improve student learning and to make them better able to face career challenges in the field of visual effects. Students going through PBL as part of their curricula may be expected to be more highly-motivated, better at the art of problem solving and self-directed learning, more adept at learning and recalling information and incorporating their basic scientific knowledge to come up with solutions for problems. But even though some such claims enjoy theoretical support from learning psychology literature, to this day there is little to show in terms of experimental evidence regarding any marked differences in students' level of learning that may be associated with PBL. But whatever evidence there is in this regard points to the following claims: that PBL is actually not a sure-fire method to improve general problem-solving skills of students. PBL based curricula causes students to have better retention of knowledge even if the learning curve experiences a relatively slower rise at the start. On the other hand, PBL based curricula does help to improve both; the incorporation of basic scientific knowledge into problem solving and the transferring of derived knowledge and concepts to new problems Therefore, PBL more often gives students an intrinsic interest in the underlying concepts of the subject matter, and that PBL improves as well as maintains the students' SDL skills. (Norman, G. R., & Schmidt, H. G., 1992).

## The Need to Enhance VFX Education in Malaysia

There are several issues in Malaysia that are faced by the professionals in the field of VFX today. These are a lack of several important requirements such as the basic and fundamental knowledge of VFX concepts, the ability to understand real-world problems and to convert ideas into VFX solutions, the ability to attain and retain up-to-date knowledge of VFX concepts, and perhaps most importantly, the ability to come up with solutions to real-world problems (Spears, D., et al., 1995; Ng, L. S., et al., 2007).

In spite of the convenient access to VFX technology and related education available today, the industry has a near-depleted level of talent pool at its disposal. Todays' audiences tend to be a lot more receptive to whatever is shown to them with good visual presentation. Moreover, with the everincreasing popularity of the entertainment industry and media overall, the amount of qualified and talented VFX artists is simply not enough to deal with the demand of the work that has to be done (Spears, D., et al., 1995). With these in mind, production houses are in a constant struggle to attain and retain the cream of VFX professionals.

Despite the abundance of access for visual effects education, the problem remains the same of there being simply not enough qualified VFX professionals in the industry. Although there is an adequate supply of people with recent training and know the basic usage of the tools of the trade; yet, they do not necessarily have the fundamental knowledge and way of thinking that a good VFX artist is expected to exhibit. A thorough understanding of the fundamentals of VFX and of the application of the effects within a movie is far more critical as compared to simply having the knowledge of what sequence of options are to be used. Therefore, VFX artists of future are likely to gain the most from receiving a strong education that may help to develop their fundamental skills set and their creative way of thinking. Moreover, training and academic programmes focusing on specialized production software and tools, most of which are readily available to the public these days, are at their most

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