DIGITAL PHOTOGRAPHY ART PROJECT AS CREATIVITY ENHANCEMENT AMONG VOCATIONAL COLLEGE STUDENTS

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Abstract

Digital photography as a form of arts is a medium of emotional experience, visual representation and communication. This study was conducted to examine the effectiveness of digital photography art project as creativity enhancement among a group of students in a vocational college. Employing a quasi-experimental method, this study used a group of 34 vocational college students as sample of a single case study design at one of the vocational college in Johor, Malaysia. With project-based learning in digital photography art project, students will learn about technique and elements of design to produce a works of photography to express the value and beauty of the environment surroundings used their own creativity. This study used Torrance Test of Creative Thinking (TTCT) to measure students’ creativity.

Keywords: Digital photography, Creativity, Project based-learning, Quasi-experiment, Torrance Test of Creative Thinking (TTCT).

1. Introduction

Digital photography art project is a project-based learning that is design applies to suit the need of vocational secondary school students who have difficulties in academic learning. In 2012, through Vocational and Technical Transformation (VOCTEC) all vocational secondary school transformational change involving curriculum, recognition of certification, trainers, infrastructure and rebranding vocational school to Vocational College. Vocational college provides an opportunity to help student in vocational oriented learning to create a semi-professional (technician/technical assistant) in engineering and non-engineering. A content area in vocational college has 30% theory and 70% practical (Malaysia Ministry of Education).

This art project is potentially powerful in attracting and motivating students who have less focus on the conventional teaching and learning activities in schools. Using digital cameras, students are able to produce works of photography to express the value and beauty of the environment. The world of photography has been recognized as a professional career, not just as a part-time field or a mere hobby.

The purpose of digital photography art project is to facilitate students in developing skills and competencies on information and technology, such as basic skills and skills of the digital age in order to equip them to face a better future (Chan, 2010). Also, photography digital art project as a medium for expression of students’ creativity because photography gives a tremendous impact in perspective of art, science, technology, communication, social and history (Nadzri, Meor, Nor Shahizan & Mustakim, 2013). In addition, this project-based learning assists students to understand and apply the
knowledge in their own field. Through these skills, students are able to manage their learning independently and in more effective ways.

Furthermore, digital photography art project is able to build students’ awareness of environmental conservation through encouragement on aesthetic appreciation of beauty of nature. The art of photography is closely related to live our lives without us realizing it. This is because the photographic image is a form of artistic creations that are closely related to human culture and plays an important role in our daily lives (Nagib & Mustafa, 2014). Through photography image, students will be able to synthesize an answer through the senses, emotions, and cognitive response that produces a meaning in photography (Cynthia, 2006).

2. Digital Photography Art Project

Photography is a one of expressive emotional, expressive aesthetic that occur because of the creativity and imagination experience or activity (Pierce, 2010). Photography is the process of producing images by the action of light or image using the tools; recorder, which is recognized as a camera. Louis-Jacques-Mande Daguerre invention a daguerreotype as a photography technique in 1839 (Mary, 2010). The original term words of photography was from British, photography is a use from two Greek words, namely phos mean light and graphic mean painting brush, or graphe which brings meaning ‘painting with light’ (Ingledew, 2005). This implies painting with light is to understand the stem of photography.

Digital photography is one of the visual culture elements that is based on visual media such as images, sculptured and art of dance. Since the 18th century, photography has become a medium to capture image as memory and the proof of existing (Sontag, 1977). Photography communicates through images, various information and meanings may be found in a picture. Mary (2010) argues that a photographer uses the medium to inspire or to elicit information for record storage, journalism, and scientific documentation.

Photography has the potential to assist students’ learning particularly in spurring their interest to learn. This is because, unlike the conventional learning tools, the images or subject was made directly through slides, film and another visual tools via photography (Mitchell & Weber, 1999). Photography also teaches students ethics and experiences through pictures such as pictures depicting the battle of remorse, cruelty, fear and human civilization. The words that we often hear; "a picture tells a thousand stories."

In 2000, the Malaysian Ministry of Education released a circular letter of the promotion of photography activities among school students. The purpose of the promotion of photography activities among school students is to make room for the students in the school to develop their potentials in a holistic and integrated manner to produce individuals who are intellectually, spiritually and physically balanced. Guided by the circular letter, the researcher uses photography as a subject of learning to encourage students’ creative work in appreciation of art education.

Photography digital art project enhances students’ understanding and achievement in terms of learning basic digital photography techniques, elements of design, discussion and understanding of pictures through digital photography module guides. Therefore, the present study investigates the impacts of photography digital art project on the understanding and achievement of low achiever students on arts and creativity.

Through this digital photography arts project, students can communicate through pictures as a non-verbal communication. With non-verbal communication, the meaning from the messenger can be easily understood by the recipients (Hashim, Mohammed Isaac & David, 2009). In this project, the students will go through several processes namely understanding, interest, desire, individual sensitivity, communication skills and ethical responsibility. This project also will attract students to understand and have interest in Visual Arts Education, as where exciting learning frameworks will be highlighted to attract students in arts education session. This is aligned with the learning of Visual

Arts education encourages students to explore various mediums, use their imagination and take a risks in intellectually, forming visual intelligence, engage in self-instructional projects, explore the symbolic function in art, have dialogue with others about the creative process and the results of their work, and build self assessment skills (Cromwell, 2000). Other benefits of arts education is to appreciate nature, appreciate the grace of God, sharpen the mind, good emotions shape, and build multi-sensory skills (Ghazie, Ahmed Hashim, & Osman Ibrahim, 2007) through nature exquisiteness as a chosen theme for this digital photography art project.

Aminudin (2004) argues that students who are active in extra-curricular activities are more likely to have good academic achievement. Thus, participation in photography digital art project could encourage low academic achieving students to be active in extra-curricular activities. Activities participated by the students will not have a negative impact on their academic achievement. Co-curricular activities are aimed to diversifying the knowledge and experience to intellectual development of students, talents, body and also to development student leadership, aesthetic value, self-esteem and positive social values (The National Education Policy, Ministry of Education, 2012). Arts Education will produce students who are independent, develop students' talents, able to express their views, practice good values in society and realize the career opportunities in the arts field.

3. The Aim of Research

The aim of this research is to enhance creativity among a group of vocational college students and to determine students' creativity and interest in the field of digital photography. The study also aims to investigate the impact of digital photography art project module on the academic achievement of students' technical skills through the examination of test scores, literacy and oral language skills. By focusing on the lack in literature, photography technical gives potential and benefit to art education specifically for social aspects to ensure the effectiveness in students’ development and learning in school life (Albertson & Davidson, 2007). This study will use some aspects of photography for students to learn as process and practice approaches in teaching studio environment, cultural and historical context to understand art and photography.

To achieve this aim, the researchers have set 3 research objectives. One of the objectives is to investigate to what extent the project-based learning in digital photography is effective in enhancing creativity among a group of vocational college students.

4. Significance of the Study

Guided by the goal of art education, the findings of the study will manure and shape the younger generation understanding in culture, have high aesthetic values, to be imaginative, critical, creative, innovative and inventive. These also contribute to the development of self, community and nation to meet the government's intention to provide an educational career path more clearly to students. To achieve this, the government proposes to rebrand vocational secondary schools to vocational colleges. Not only that, this transformation also involves changes in technical and vocational curriculum, the learning, the certification, trainers, and infrastructures. The result of the study can also be used by educators to improve the technical and vocational education in development pupils' creativity through Vocational and Technical Transformation (VOCTEC) on technical schools and vocational schools in Malaysia.

5. Scope and Limitations

In this study, a group of 34 students in a vocational college in the state of Johor, Malaysia was randomly selected. This study was conducted over 16 sessions of teaching and learning activities, and
3 weeks to allow 8 measurements; there are 2 sessions for each measurement for the completion of this entire lesson plan.

6. Instruments

Researchers used two instruments in this study; questionnaires and rubric assessments. Questionnaires are used for identifying students’ achievement and information related to the art of digital photography and the effects of photography digital art project learning module. Researchers used Likerts scale, interpretation of Cronbach Alpha (α) to measure the reliability of the items and questionnaires. The instruments were administered to 40 form four technical students. The second instrument is a Rubric assessments form used for Pre-activity and Post-activity. The rubric of students’ creativity measurement is based on photographic basic technique and composition principles of digital photography. Researchers use this rubric as a process to determine, obtain, and provide useful information for researchers to make judgments about further action (Siti Hayati, 2011). Rubric assessment that is used as a system or process covers the activities of gathering information about the strategies and teaching and learning activities for researchers to analyze and decide accordingly to plan activities more effectively. To determine the validity of the content in the rubric of pre-activity and post-activities, three experts in the field of art and photography education validated an instrument that was adapted and built.

The teaching and learning of this single treatment group is done through both indoor and outdoor classes using the digital photography art project module which was modified from Curriculum Plan; picturing Peace: Creative Digital Photography Project by ArtsBridge (2005). Researchers used method of discussion, practical and technical skills, and problem solving skills, as well as medium and appropriate instructional media research. Researchers make a full use of media and technology equipment such as digital cameras, flashlights, computers, and software editing Photoshop, lighting and studio equipment.

7. Torrance Test of Creative Thinking (TTCT)

Torrance (1963) says creativity as a process by which a person becomes aware of the shortage, gaps in knowledge, missing elements, disharmony and so on; identify new information, these elements are missing, find solutions, make predictions, or to form a hypothesis about the problem or deficiency, testing and review and possible modification hypothesis and test it again, execute it, and ultimately deliver results. He managed to create a benchmark method to measure the level of creativity each individual, and he suggested that IQ tests (intelligent quotient) is not the only way to measure a person's intellectual.

Torrance introduce an instrument to test the creativity of someone using "Torrance Test Of Creative Thinking (TTCT)." Torrance (1963) believe that creativity arises if it have characteristics of fluency, originality, flexibility and elaboration. Azman, (2013), agree that the product or artwork will be deemed to have creativity values should have all four of these indicators. Fluency is the idea that many or alternative solutions. Originality is the original idea of the incredible and distinctive nothing in common with others. Flexibility means the production of a variety of ideas, can be modified, can be exaggerated and can be categorized. These ideas can be assessed and viewed from different angles using a variety of approaches and strategies Azman (2013). elaboration about the idea of giving details that can be organized and easy to understand.

Creativity in digital photography refers to the additional creativity required to produce photography that will highlight a subject with your own creativity to produce the artwork product images, fashion, or advertising. Stated by Darmanysah (2012), a photographer using creativity to embrace the subject to obtrusive the characteristics of the desired subject to products an image.

8. Findings and Discussion

Digital photography art project as creativity enhancement among low achievers students was analyzed based on early finding from pre-activities and post-activities of learning modules. After the treatment
of digital photography art project module lesson, data from post-activities were analyzed by comparing mean achievement score between the pre-activities and post-activities. The independent sample t-test was performed to trace if there exists any enhancement in creativity level after treatment. The results show that there is significant enhancement in creativity level after treatment.

The effectiveness of digital photography art project module based learning in enhancing creativity among low achievers students also analyzed across creativity level in post-activities. A t-test was performed to determine if there were significant differences in ability to create images using creative imagination before and after the learning of digital photography art project modules. The ANOVA analysis performed the achievement indicators creativity vocational college students. Findings from the experiment conducted among 34 participants suggest that digital photography art project module based learning has enhanced creativity level among vocational college students. Table 1 to Table 3 show the results of t-test comparison of pre/post-activities towards across enhance creativity level used digital photography art project learning modules.

Findings from experiment conducted among 34 participants in the single group suggest the digital photography arts project for creativity enhancement among low achievers students.

Table 1: t-test Comparison of Pre-Activities and Post-Activities Achievement in Creativity used Digital Photography Art Project Module Lesson

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>Df</th>
<th>Sig. (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement in Creativity</td>
<td>Pre-Activities</td>
<td>34</td>
<td>11.1</td>
<td>3.8</td>
<td>-9.9</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>Post-Activities</td>
<td>34</td>
<td>23</td>
<td>5.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows that effectiveness of digital photography art project module can increase creativity and achievement after post activity is higher than pre-activity before learning digital photography art project module with the t (66) = -9.9, p <.05. This indicates that the null hypothesis is rejected and there is no significant difference in mean scores between pre-activity and post activity for students to learn digital photography art project modules to increase students’ creativity. It shows that the enhancement of creativity after undergoing the process of learning the digital photography art project module.

Table 2: One-way ANOVA analysis Mean Difference Scores Post-Activity Achievement Indicators Creativity

<table>
<thead>
<tr>
<th>Indicators creativity</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td>34</td>
<td>5.794</td>
<td>1.989</td>
<td>0.341</td>
</tr>
<tr>
<td>Originality</td>
<td>34</td>
<td>4.382</td>
<td>1.456</td>
<td>0.250</td>
</tr>
<tr>
<td>Flexibility</td>
<td>34</td>
<td>4.441</td>
<td>1.753</td>
<td>0.317</td>
</tr>
<tr>
<td>Elaboration</td>
<td>34</td>
<td>3.912</td>
<td>1.483</td>
<td>0.254</td>
</tr>
</tbody>
</table>

Table 2 shows the mean scores on the creativity achievement post-activities using basic techniques of photography and elements of design digital photography composition in producing creative images. The data show that the indicators of originality gets the highest mean score of 5.8. The indicators have the lowest mean score of 3.9 is Elaboration. While other indicators have the same mean score of 4.4.
Table 3: One-way ANOVA analysis Achievement Scores Post-Activities Based On Indicator Creativity

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Squares</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Group</td>
<td>965.103</td>
<td>3</td>
<td>87.802</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In Group</td>
<td>2389.297</td>
<td>132</td>
<td>24.844</td>
<td>108.936</td>
<td>0.05</td>
</tr>
<tr>
<td>Total</td>
<td>3354.399</td>
<td>135</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To answer this hypothesis, ANOVA analysis was used. Based on the analysis data in Table 14, shows that there are significant differences in student achievement based on indicators creativity after undergoing the process of learning the digital photography art project module. Data show the mean between groups for post-activity is 87.802 and 24.844 mean in the group with test F(3,132)=108.936, p<.05. This means that the achievement of students in post-activities is different based on indicators creativity.

9. Implication and Conclusions

This paper has examined the nature exquisiteness based digital photography arts project for creativity enhancement among secondary students by employing the digital photography module. The effectiveness of the modules was tested and it was found that the module was effective to students. In addition, it was found that the three null hypotheses were rejected because there were significant differences in achievement between pre-activities and post-activities using the PROSFD module learning. The outcome of this study will hopefully enhance the process of teaching and learning in art education particularly in vocational secondary school through the promotion of the use of photography lesson to enhance creativity among students and for career opportunities in the arts field. Funding of this research work was generously supported by grants from the University of Malaya, Malaysia.
References


