EFFECTIVE I-360 VIRTUAL MUSEUM TOUR: GUIDELINE FOR ELEMENTS OF MISE-EN-SCENE FROM VIDEO CONTENT

Mohammad Shahiran bin Salim*

Unit for Instructional Development & Multimedia
Politeknik Tuanku Syed Sirajuddin (PTSS)
Malaysia
shahiran@ptss.edu.my

Siti Izani binti Idris

Department of Design & Visual Communication
Politeknik Tuanku Syed Sirajuddin (PTSS)
Malaysia
sitiizani@ptss.edu.my

*Corresponding Author email: shahiran@ptss.edu.my

Submission: 01 April 2021

Revised: 30 May 2021

Accepted: 10 June 2021

Peer-review under responsibility of 5th ASIA International Multidisciplinary Conference 2021 (Online)

Scientific Committee

<http://connectingasia.org/scientific-committee/>

© 2021 Published by Readers Insight Publisher,

Office # 6, First Floor, A & K Plaza, Near D Watson, F-10 Markaz, Islamabad, Pakistan,

editor@readersinsight.net

This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

ABSTRACT

The i360 Virtual Museum Tour was developed as a facilitator for Topic 5 Mise-en-Scene and Semiotic Elements in the module DVV3013 Film Studies at the Department of Design and Visual Communication, Tuanku Syed Sirajuddin Polytechnic, Perlis. In terms of location selection, costumes, makeup, lighting, and actor expression, these Mise-en-scene elements include the function of a scene in the film to explain something or give a dramatic effect to the audience. This application displays the Malaysian race through the Iconography element Mise-en-scene of the background, costumes, and props highlighted as part of the Malay sultanate concept before. It was developed using a 360 camera as well as 3D vista software for editing purposes. Exploring this museum involves four main aspects, namely information related to learning at the Kedah State Museum and the Kedah Royal Museum and the quiz elements as an assessment. Design Thinking Process (Empathies, Define, Ideate, Prototype and Test) is used as a methodology for design and development process. Thirty-five diploma students (51.4% men, 48.6% of women) responded to the questionnaire. Based on analysis data shown this application is beneficial to know and recognize the elements of Mise-en-Scene the higher-level percentage of 93.0%.

Keywords: *Virtual Reality, Virtual Museum, Interactive VR, Kedah State Museum, Immersive, Mise-en-Scene*

RESEARCH HIGHLIGHTS

1. This research provides evidence of effectiveness that uses a virtual reality learning environment, where it offers unique interactivity and can be utilized in aspects of learning.
 2. The i360 Elements of Mise-En-Scene (Virtual Museum Tour) application uses a virtual reality learning environment, to utilized in aspects of knowledge sharing the elements of the mise en scene in the film Malay sultanate see the turning angle of 360 °.
 3. The study highlights the art of creating a scene of location selection, costumes, makeup, lighting, and actor expression.
 4. The results relate mainly to the study in order to support prospective educators who wish to make effective use of i360 for education.
-

GRAPHICAL ABSTRACT

Fig. 1. Main interface of the i360 Elements of Mise-En-Scene (Virtual Museum Tour) application

Fig. 2. Quiz on the i360 Elements of Mise-En-Scene (Virtual Museum Tour) application

Fig. 3. Virtual Tour to background, costumes, and props highlighted.

Research Objectives

General Objectives

The general objective of conducting this study is to expose the i360 virtual museum optimised e-learning functions: Quiz, Score and Gamification to enable students to use 360 virtual tours for more immersive, interactive and life-like activities.

Specific Objectives

1. To design the application displays the Malaysian race through the iconography element Mise-en-scene of the background, costumes, and props highlighted as part of the Malay sultanate concept.
2. To help develop creative thinking, improve understanding, and change the paradigm of a student's learning methods.

The study contributed to Play and fun, and discovery-based learning. New capabilities in the interactive 360-degree video prove to be particularly effective in teaching and learning

scenarios that require autonomous control of perspective direction, immersion, and presence (Feurstein, 2018).

Methodology

As a representative statistical sample in empirical research, data has created a demand for an effective method of determining sample size. Krejcie and Morgan designed a table to help them choose a limited overall sample size to fill in the gaps (McNaughton & Cowell, 2018). A three-item questionnaire, designed to obtain information regarding interpretation of the i360 Virtual Museum Tour, was answered to diploma students. Thirty-five students (51.4% men, 48.6% of women) responded to the questionnaire. Three questions from the questionnaire are underlined for evaluating student acceptance. More appreciation of the simulation of a real-world setting in learning, easier to remember theoretical understanding while using i-360 video, and finally, the i360 Aspects of Mise-en-Scene (Virtual Museum Tour) application is valuable knowledge and recognize the elements of Mise-en-Scene.

Results

The effectiveness of this study based on a result provided by a Continuous Quality Improvement (CQI) report of Course learning outcome (CLO) by semester in Diploma Film & Studies in Polytechnic and three crucial item questionnaire, designed to obtain information regarding interpretation of the application, was answered to students.

Table 1. Summary of Continuous Quality Improvement (CQI)

CLO	Percentage (%)			
	DIS 2017	JUN 2018	DIS 2018	JUN 2019
CLO3: Produce a proper case study report using Mine-En-Scene and semiotics elements analysis	58	52	71	73

Table 2. Summary of interpretation of the application

No	Item	Percentage %
1	More appreciative of the replica of the real-world environment through simulation of i-360 in learning	87.6%
2	Easy to remember theoretical learning when using i-360 video	81.3%
3	i360 Elements of Mise-En-Scene (Virtual Museum Tour) application is beneficial to know and recognize the elements of Mise-En-Scene.	93.0%

Findings

The nature of 360-degree interactive movies, their instructional usage, evidence of usefulness, and the design of interactive video apps were all explored in this study. Despite the lack of research, the evidence suggests that this strategy is quite effective and efficient (Smith, 1987). Follow the future systematic process to produce 360-degree interactive videos, and there is little discussion of design models for making high-quality content for students. The development was adaptation from Design Thinking Methodology, and further study on cost-effectiveness are suggested.

References

- Feurstein, M. S. (2018). Towards an Integration of 360-Degree Video in Higher Education. Workflow, challenges and scenarios. *DeLFI Workshops 2018 Co- Located with 16th e-Learning Conference Of the German Computer Society*, 1(September), 269–288. <http://epub.wu.ac.at/2792/%5Cnhttp://epub.wu.ac.at/3856/1/1-s2.0-S0305054812000871-main.pdf>
- McNaughton, D. B., & Cowell, J. M. (2018). Using methods of data collection. *Advanced Public and Community Health Nursing Practice: Population Assessment, Program Planning and Evaluation, Second Edition*, 38, 127–153. <https://doi.org/10.1891/9780826138446.0006>
- Smith, E. E. (1987). Interactive video: An examination of use and effectiveness. *Journal of Instructional Development*, 10(2), 2–10. <https://doi.org/10.1007/BF02905785>