

i-JaMCSIIX²⁰²¹

Exploring ideas

International Jasin Multimedia & Computer Science Invention and Innovation Exhibition



International Jasin Multimedia & Computer Science Invention and Innovation Exhibition (i-JaMCSIIX 2021)

15 FEBRUARY 2021 - 31 MARCH 2021

VIRTUAL COMPETITION • INNOVATION & INVENTION • PUBLICATION OPPORTUNITIES

EXTENDED ABSTRACT

UITM CAWANGAN MELAKA KAMPUS JASIN

ISBN:

978-967-15337-0-3

WEBSITE

| <https://jamcsiix.wixsite.com/2021>



i-JaMCSIIX Exploring ideas **2021**

International Jasin Multimedia & Computer Science Invention and Innovation Exhibition



COPYRIGHT © 2021

i-JaMCSIIX

Universiti Teknologi MARA Cawangan Melaka Kampus Jasin

77300, Merlimau, Melaka

Web: <https://iamesiix.wixsite.com/2021>



PUBLISHED BY:

i-JaMCSIIX

Universiti Teknologi MARA Cawangan Melaka
Kampus Jasin

77300 Merlimau, Melaka

Tel: 062645000

Email: jamcsiix@uitm.edu.my

Web: <https://iamcsiix.wixsite.com/2021>

ISBN: 978-967-15337-0-3

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without permission of the copyright holder.

ORGANIZING COMMITTEE

PATRON	ASSOC. PROF. DR. ISMADI MD BADARUDIN
ADVISOR 1	NOR FADILAH TAHAR @ YUSOFF
ADVISOR 2	DATO' TS. DR. MOHD NOR HAJAR HASROL JONO
PROJECT LEADER	TS. NURUL NAJWA ABDUL RAHID @ ABDUL RASHID
PROJECT LEADER 2	ANIS AFIQAH SHARIP
TREASURER 1	SITI MAISARAH MD ZAIN
TREASURER 2	NURUL ZAHIRAH ABD RAHIM
SECRETARY 1	NOR AIMUNI MD RASHID
SECRETARY 2	NUR NABILAH ABU MANGSHOR
PUBLICATION	DR. RAIHAH AMINUDDIN DR. NOR AIZA MOKETAR DR. SITI FEIRUSZ AHMAD FESOL
JURY	TS. RAIHANA MD SAIDI DR. ELIN ELIANA ABDUL RAHIM NOR INTAN SHAFINI NASARUDDIN
REGISTRATION	FADZLIN AHMADON HAJAR IZZATI MOHD GHAZALLI SITI AISYAH ABDUL KADIR
PROMOTION	MOHAMAD ASROL ARSHAD ZUHRI ARAFAH ZULKIFLI FADILAH EZLINA SHAHBUDIN
MULTIMEDIA	NORSHAHIDATUL HASANA ISHAK HAZRATI ZAINI NUR FARAHAH MOHD JOHARI FAIQAH HAFIDZAH HALIM MOHAMMAD BAKRI CHE HARON MUHAMMAD HAMIZ MOHD RADZI
AWARD	FARAH NADZIRAH JAMRUS FADHLINA IZZAH SAMAN NURULHUDA ZAINUDDIN HAZWA HANIM MOHAMED HAMZAH MOHD HAFIFI MOHD SUPIR ADI HAKIM TALIB
CERTIFICATE	NUR SYUHADA MUHAMMAT PAZIL MARIATHY KARIM UMMU MARDHIAH ABDUL JALIL NOOR WAHIDA JAMIL
TECHNICAL & PROTOCOL	DR. AHMAD FIRDAUS AHMAD FADZIL ALBIN LEMUEL KUSHAN MOHD NABIL ZULHEMAY
SPONSOR	TS. NURUL NAJWA ABDUL RAHID @ ABDUL RASHID SHAHADAN SAAD FARIDAH SAPPAR SYAFNIDAR ABDUL HALIM SITI NURAMALINA JOHARI
LANGUAGE EDITOR	NUR AQILAH NORWAHI MOHD AMIRUL ATAN

BRONZE SPONSOR

AINON SYAZANA AB HAMID

ANITA MOHD YASIN

BUSHRA ABDUL HALIM

FARIDAH SAPPAR (Ts.)

FATIMAH HASHIM

HAZRATI ZAINI

MASTURA MANSOR

MASWATI SUFFIAN

NOORAZILAH IBRAHIM

NOR ADILA KEDIN

NOR AIZA MOKETAR (DR.)

NOR AZIDA MOHAMED NOH

NOR INTAN SHAFINI NASARUDDIN

NURUL HIDAYAH MAT ZAIN (Ts. DR.)

NURUL NAJWA ABDUL RAHID @ ABDUL RASHID (Ts.)

NURULHUDA GHAZALI (Ts.)

RAIHAH AMINUDDIN (DR.)

SALEHAH HAMZAH

SHAHITUL BADARIAH SULAIMAN

SITI AISYAH ABDUL KADIR

SITI NURAMALINA JOHARI

SITI RAMIZAH JAMA

SURYAEFIZA KARJANTO (DR.)

SYAFNIDAR ABDUL HALIM

UMMU MARDHIAH ABDUL JALIL

ZAINAB OTHMAN

ZURAH ABU

LIST OF REVIEWERS

FADILAH EZLINA SHAHBUDIN

FADZLIN AHMADON

FARAH NADZIRAH JAMRUS

HAJAR IZZATI MOHD GHAZALLI

HAZRATI ZAINI

NOR AIZA MOKETAR (DR.)

NOR INTAN SHAFINI NASARUDDIN

NURUL NAJWA ABDUL RAHID @ ABDUL RASHID (Ts.)

RAIHAH AMINUDDIN (DR.)

RAIHANA MD SAIDI (Ts.)

SHAFAF IBRAHIM (Ts. DR.)

SITI FEIRUSZ AHMAD FESOL (DR.)

SITI MAISARAH MD ZAIN

SITI NURAMALINA JOHARI

SURYAEFIZA KARJANTO (DR.)

CONTENTS

ID	PROJECT TITLE	PAGE
JM008	Automation in Pneumonia Detection	1
JM017	Terengganu Cultural Trail: Using Videography in a Participant-observer Study to Enhance Cultural Heritage Appreciation Among Children.	5
JM019	Cassava Leaf Disease Detection System using Support Vector Machine	8
JM021	Learning Mathematics using Fun-Math Mobile Application for Pre-School	12
JM024	OSH-DBG as a Method of Digital Problem-Solving for Learning Construction Safety and Health Course	16
JM026	“What to Cook?” Mobile Application	19
JM028	Learning Arabic Communication Skill Through Mobile Application	23
JM034	Enhanced Gamification in Study Skills	27
JM039	Flexible Learning Using ANATEKS Flexi e-Content Medium: An Innovative Effort in Times of Covid-19 Pandemic	31
JM043	Web-Application for Securing Message Using LSB Algorithm Steganography and Hybrid Encryption	35
JM045	Web-Based Science Lab Inventory System for Faculty of Pharmacy in UiTM Bertam	39
JM046	Dental Treatment Orientation for Children using Role Playing Game	43
JM047	EZ Forecast 2.0: A System of Univariate Models	47
JM048	Arduino-based Farm Feeder Helper	51
JM050	PictoEZodit (E-Comic In Teaching Practice)	55
JM054	i-CHEMTORIALS (Interactive Chemistry Tutorials)	59

JM056	Chemical Composition and Biological Activity of Momordica charantia (Bitter Melon)	63
JM059	Lima Sekawan: An Entrepreneurial App Based Introductory Tools for Kids	66
JM064	A Study on Factors Toward Household Willingness on E-Waste Recycling in Seremban	69
JM070	PEFE (Plant Eco-Friendly Energizer)	73
JM071	An Intelligent of ANN Towards Agarwood Oil Compounds Pre-processing Based on Stepwise Regression Method to Improve the Oil Quality	76
JM080	Paddyville: Learning Paddy Cultivation through Role-Playing Game	80
JM089	Agarwood Oil Quality Classification Using One Versus All Strategies in Multiclass on SVM Model	84
JM099	The Development of E-Content 'Sci-Anime2021'for PDPR during Covid-19 Era	87

Terengganu Cultural Trail: Using Videography in a Participant-observer Study to Enhance Cultural Heritage Appreciation Among Children.

Siti Hajar Abd Aziz¹, Ahmad Nur Azam Ahmad Ridzuan², Zuliani Mohd Azni³, Muhamad Hanapi Khamis⁴ and Norida Abu Bakar⁵

¹Universiti Teknologi MARA Melaka, ²Universiti Teknologi MARA Perak, ³Universiti Teknologi MARA Melaka, ⁴Universiti Teknologi MARA Negeri Sembilan ⁵Universiti Teknologi MARA Melaka

shajar_aziz@uitm.edu.my¹, ahmad558@uitm.edu.my², zulianiazni@uitm.edu.my³, hanapikhamis@uitm.edu.my⁴, norida107@uitm.edu.my⁵

Abstract—With the new technological improvements, video-based observation research is becoming a promising method in many areas. Video recording has been under-utilized as a data collection tool because of confidentiality and privacy issues. However, it has many benefits as opposed to traditional observations, and recent studies using video recording methods have introduced new research areas and approaches. This paper aimed to describe the videography project in a participant-observer study to enhance cultural heritage appreciation among children. It is also hoped to give some insights about children's appreciation of Terengganu cultural heritage when videography was incorporated as its observation tool. The researchers hoped to nurture active learning at an early age, and this includes a cultural appreciation for the participants. Participants embarked on a three-day journey to experience the cultural heritage of the mystical Terengganu, where silat, gasing and the wayang kulit were popular but unfamiliar to the participants. It hopes to nurture cultural appreciation where participants seek to understand and learn about Terengganu cultural heritage in an effort to broaden their perspective and connect with others.

Keywords—*active learning, cultural appreciation, cultural heritage, observation, videography*

I. INTRODUCTION

In this era where technology has become part of our daily life, the researchers were encouraged to attempt a short video-based participant-observer study to understand and establish cultural appreciation on cultural heritage among children. Videography in the field of education is not new.

Studies show that videography has been under-utilized as a data collection tool because of confidentiality and privacy issues. However, as opposed to traditional observations, videography in learning has many benefits, and it introduces new research areas and approaches.

When studying videography in relation to the appreciation of cultural heritage and its appreciation, let us begin with defining the concept of cultural heritage. The cultural heritage defined by UNESCO (1982) also includes, among others, the works of its artists, architects, musicians, writers in the expressions of the people's spirituality, and the body of values which give meaning to life

Zsuzsa Nagy-Sándor and Berkers (2018) noted culture as a way of life where cultural expressions, which includes singing, are the manifestation of an internal desire to voice the emotions of individuals, groups, and communities which rooted in their sociocultural environment.

The importance of cultural heritage is undeniably, especially to the recent generation, as some of the youth have rare opportunity to witness of experience Malays' traditions nowadays. Smith et al. (2010) defined cultural heritage as some broader concerns that came from some tangible assets.

Moreno (2020) refers cultural heritage as clear reference for the public in order to construct a potential sustainable city, socially, culturally and environmentally. In order for the youth to appreciate it, those cultural heritages must be exposed either using mass media platform, digital platform, or visiting the displayed culture monuments such as to on display at the state museums.

As example, according to Balqis (2020) Terengganu Cultural Village is the best platform for young people to identify some of the traditions of the ancestors as well as being able to feel the diversity of the community in Terengganu. Balqis (2020) also mentioned traditional games and instruments that have never been seen by today's generation are parts of the artefacts that shown in the cultural village.

In a BERNAMA articles, Nordin (2018) noted the Persatuan Dunia Seni Silat Melayu Malaysia (DSMM) who wanted the silat to be gazetted as an Intangible Cultural Heritage under the United Nations Educational, Scientific and Cultural Organisation (UNESCO).

Silat is one of Malays' martial art that was established long time ago. It's used by Malay community for self-defense techniques, hunting techniques as well as fighting techniques to stop an immediate or an unprovoked attack as well as combative art to fight against those colonials that came to Malaysia (previously known as the Malay Peninsula).

Meanwhile, as the cultural appreciation to is an important concept in this video project, the researched hope to understand its basic concept. The Finery Report (2020) pointed out the cultural appreciation concept refers to "cultural exchange, in which the two parties would have consented to participate in some culture.

This also participants to understand and respect each other's culture, which can be achieved through studying other cultures, traveling, listen to shows, and even making friends as mentioned by Les Elfes International (2019) Apparently, participants involved will also be able to respect culture, understand the values and beliefs of a population in order to respond to and meet the needs of diverse participants (Preemitive Love, 2020)

This paper too wished to highlight the benefits of using videography as a technique to enhance children's appreciation as compared to the traditional observation method in cultural appreciation. In a much notable study by Norton and Hathaway (2010), authors had pointed out that video production were accepted as an instructional strategy and not as an object of study, which in this era of a "unique media savvy, multimodal, and multitasking attributes of today's students" has an important role to play in K-12 content learning.

Petr C et al. (2015) pointed out that the use of video and visuals are increasingly important, and videos are no longer only for ethnographers and specialist researchers. Petr. C (2015) suggested videography is a new, artistic way to present results of research, as it is highly effective and engaging to the audience. Authors further noted that in the society of "user-content generation," these visual data are incredibly important, original, and powerful sources providing researchers with opportunities to inventively make their results more resonant and more broadly accessible.

Meanwhile, Knobloch et al. (2014) stated that videography technique has also been used in the field of social sciences for a while, and techniques including recording and replaying too were used to observe social interaction in the respective field of study. Furthermore, Norton and Hathaway (2010) saw videos as a tool which can better demonstrate complex ideas and concepts than verbal explanations can, and visual media helps cement the information in students' minds. Short format videos have been proven to increase knowledge retention.

Belk (2013) indicates that videography as part of visual research too has much a lot of potential in many areas especially in Asian context as Asian consumer cultures are rich in visual details, and "it is natural that using visual stimuli, capturing visual data, and using visual presentations should be used in researching such topics".

II. METHODS

This journey to experience cultural heritage took a group of enthusiasts which includes five children who embarked on a three-day journey to experience the cultural heritage of the mystical Terengganu. Here, they experienced *silat*, *gasing* and *wayang kulit* were popular in Terengganu but unfamiliar to the participants. The study was initiated in conjunction with the Terengganu Cultural Village which took place at various events in Kuala Terengganu in September 2020. Videography was used as a recording method to this participant-observer study, which aims to enhance cultural heritage appreciation among children who took part in this journey.

After the video was completed and edited, the video was shown to the participants. This has helped them vividly discuss their experiences of the cultural heritage they encountered. This shows that videography can be a good technique to nurture cultural heritage appreciation which can lead to cultural appreciation which helps to broaden their perspective and connect with others.

III. RESULTS AND FINDINGS

The researchers took this project as an important part of the participants' personal growth and development, understanding of the cultural heritage, norms and values and arts, understanding about themselves and others in an attempt to

connect with the world they live in which has been greatly influenced by industrialization and urbanisation.

Viewing the video of the Terengganu Cultural Trail has motivated participants to vividly discuss their experiences of the cultural heritage they encountered with *silat*, the *gasing* and the *wayang kulit* became their main highlights in their discussion. The researchers found out that videography can be a good technique to nurture cultural heritage appreciation which helps to broaden their perspective and connect with others.

IV. CONCLUSIONS

The researchers concluded that videography is a fun way for children to experience, capture and strengthen their memory of their experience. The researchers believed this has succeeded to enhance their appreciation of the children's appreciation of Terengganu cultural heritage when videography was incorporated as its observation tool. It is proposed that videography could become an excellent technique for children to look back and revisit memories of their cultural encounter, thus encouraging cultural appreciation and cultural respect. This study could be a preliminary work for a future study which involved more participants and in a different setting.

REFERENCES

- [1] C. Petr, R. Belk, and A. Decrop, "Videography in marketing research: Mixing art and science", *Arts and The Market*, 2015, vol. 5(1), pp. 73-102.
- [2] G. S. Smith, P. M. Messenger, and H. A. Soderland, "Heritage Values in Contemporary Society", in University of Chicago Press. 2010.
- [3] H. Knoblauch, R. Tuma, and B. Schnettler, "Video analysis and videography", in *The SAGE handbook of qualitative data analysis*, SAGE Publications Ltd, 2014, pp. 435-449.
- [4] J. Balqis, "New Terengganu cultural village showcases state's malay heritage, culture", September 2020, in [Blis.Bernama.com/Index.Php?Mod=Articles&Opt=La&Cid=1&Scid=5&Aid=8042457](https://blis.bernama.com/index.php?mod=Articles&opt=La&cid=1&scid=5&aid=8042457)
- [5] L. D. R. Moreno, "Sustainable city storytelling: Cultural heritage as a resource for a greener and fairer urban development", *Journal of Cultural Heritage Management and Sustainable Development*, 2020, vol. 10(4), pp. 399-412.
- [6] Les Elfes International, "What are the benefits of understanding different cultures?", November 2019, in [https://Leselfes.Com/Understanding- Different-Cultures](https://leselfes.com/understanding-different-cultures).
- [7] Nagy-Sándor Zsuzsa and P. Berkers, "Culture, heritage, art: Navigating authenticities in contemporary Hungarian folk singing", *Cultural Sociology*, 2018, vol. 12(3), pp. 400-417
- [8] P. Norton and D. Hathaway, "Video production as an instructional strategy: Content learning and teacher practice", *Contemporary Issues in Technology and Teacher Education*, 2010, vol. 10(1), pp. 145-166.
- [9] Preemptivelove, "What is cultural appreciation (And how it's different from cultural appropriation)?", May 2020, in [https://Preemptivelove.Org/Blog/What-Is-Cultural-Appreciation/](https://preemptivelove.org/blog/what-is-cultural-appreciation/)
- [10] R. Belk, "Visual and Projective Methods in Asian Research", *Qualitative Market Research*, 2013, vol. 16, pp. 94-107.
- [11] R. Nordin, "DSSM wants silat gazetted as intangible cultural heritage", March 2018, in <https://www.malaymail.com/news/malaysia/2018/03/11/silat-society-wants-malay-martial-art-to-be-gazetted-as-cultural-heritage/1595399>
- [12] The Finery Report, "What is considered cultural appreciation" October 2020 in <https://www.thefineryreport.com/articles/2020/10/5/what-is-considered-cultural-appreciation?rq=What%20Is%20Considered%20Cultural%20appreciation>
- [13] Unesco, "Web 2.0 and interactive systems: Aesthetics cultural heritage for communicability assessment", in the *Handbook of research on technologies and cultural heritage: Applications and environments*, 1982, pp.31.