

PRESERVING MAK YONG FOR AESTHETIC EXPERIENCE IN INTANGIBLE CULTURAL HERITAGE THROUGH DIGITAL TECHNOLOGY

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UNIVERSITI PENDIDIKAN SULTAN IDRIS

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**PRESERVING MAK YONG FOR AESTHETIC EXPERIENCE IN INTANGIBLE
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NAIMAH BINTI MUSA @ ZAKARIA

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ABSTRACT

Mak Yong, a Malaysian performing art, is one of the Intangible Cultural Heritage (ICH) awarded by UNESCO in 2005. The Mak Yong's declination was due to several issues including state government restrictions and prohibitions, lack of financial support and sponsorship, diminishing of elder performers, and the rise of digitalisation era. The advancement of digital technology and media seems to have a positive impact to the preservation of ICH. Therefore, this study is set to discover the level of acceptance for digitising Mak Yong amongst novice and expert practitioners, as well as to explore the potential of motion capture technology in order to digitally preserve the Mak Yong facial expressions, and to propose a new model of Aesthetic Experience (AX) that can improve the digital experience of Mak Yong. This study has adopted the Design Thinking model with five stages; empathise, define, ideate, prototype and test. The Design Thinking research approach is based on alteration and non-linear properties that are suitable for the development and design of stimulus prototype. Qualitative methods are also used in this research including a semi-structured interview with four Mak Yong experts and a focus group discussion (FGD). The FGD was attended by sixteen participants with educational backgrounds in theater and performance, and divided into two different virtual discussions. By utilizing the Atlas.ti 8 software for data analysis, this study uncovered the three themes as the main findings namely digital preservation through; expert's verification, social media promotion and the potential of new media applications. The findings have also revealed that digital preservation has a significant impact on Mak Yong's performing art and AX during the transmission process. The theory of AX and diffusion of innovation were discussed, which has led to the formation of a new framework called the Diamond model of AX.



MEMELIHARA MAK YONG UNTUK PENGALAMAN ESTETIK DALAM WARISAN BUDAYA TIDAK KETARA MELALUI TEKNOLOGI DIGITAL

ABSTRAK

Mak Yong, sebuah seni persembahan Malaysia, merupakan salah satu warisan budaya tidak ketara (*Intangible Cultural Heritage* - ICH) yang dianugerahkan oleh UNESCO pada tahun 2005. Kemerostan Mak Yong adalah disebabkan oleh beberapa isu termasuk sekatan dan larangan kerajaan negeri, kekurangan sokongan kewangan dan penajaan, pengurangan penghibur yang berusia dan kebangkitan era pendigitalan. Kemajuan teknologi digital dan media telah memberi impak positif kepada pemeliharaan ICH. Oleh itu, kajian ini dijalankan untuk mengetahui tahap penerimaan pendigitalan Mak Yong dalam kalangan pengamal baru dan pakar, serta meneroka potensi teknologi tangkapan gerakan untuk mengekalkan ekspresi muka Mak Yong secara digital dan untuk mencadangkan satu model baharu Pengalaman Estetik (*Aesthetic Experience* - AX) yang boleh meningkatkan pengalaman digital Mak Yong. Kajian ini telah mengguna pakai model Pemikiran Reka Bentuk (*Design Thinking*) dengan lima peringkat; menekankan, mendefinisikan, idea, prototaip dan ujian. Pendekatan penyelidikan Pemikiran Reka Bentuk adalah berdasarkan pengubahan dan sifat bukan linear yang sesuai untuk pembangunan dan reka bentuk prototaip rangsangan. Kaedah kualitatif digunakan dalam penyelidikan ini termasuk temu bual separa berstruktur dengan empat orang pakar Mak Yong dan perbincangan kumpulan fokus (*Focus Group Discussion* - FGD). FGD telah dihadiri oleh enam belas peserta dengan latar belakang pendidikan dalam teater dan persembahan, dan dibahagikan kepada dua perbincangan maya yang berbeza. Dengan menggunakan aplikasi seperti Atlas.ti 8 untuk menganalisis data, kajian ini menghasilkan tiga tema sebagai penemuan utama iaitu pemeliharaan digital melalui; pengesahan pakar, promosi media sosial dan potensi aplikasi media baharu. Hasil kajian juga mendedahkan bahawa pemeliharaan digital mempunyai kesan yang besar terhadap seni persembahan dan AX Mak Yong semasa proses penghantaran. Teori AX dan penyebaran inovasi telah dibincangkan, seterusnya membawa kepada pembentukan rangka kerja baru yang dipanggil model Diamond AX.



TABLE OF CONTENTS

	Page
DECLARATION OF ORIGINAL WORK	ii
DECLARATION OF THESIS	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	v
ABSTRAK	vi
CONTENTS	vii
LIST OF TABLES	xiii
LIST OF FIGURES	xiv
LIST OF ABBREVIATIONS	xx
LIST OF APPENDICES	xxi
CHAPTER 1 INTRODUCTION	
1.1 Introduction	1
1.2 Research Background	2
1.3 Research Problem	3
1.4 Research Objectives	6
1.5 Research Questions	7
1.6 Research Framework	9
1.7 Significance of Research	10
1.8 Limitation	12

1.9 Definition of Terms	13
1.10 Summary	15

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction	14
2.2 Cultural Heritage	16
2.2.1 Tangible Cultural Heritage	16
2.2.2 Cultural Heritage Preservation in Digital Technologies	18
2.2.3 Intangible Cultural Heritage	22
2.2.4 Preservation of Intangible Cultural Heritage	24
2.3 Malay Intangible Cultural Heritage	27
2.3.1 Mak Yong	28
2.3.2 Dance Movement	35
2.3.2.1 <i>Tarian Mengadap Rebab</i>	36
2.3.3 Songs	38
2.3.4 Characters	39
2.3.5 Music Instruments	41
2.3.6 Repertoire	43
2.3.6.1 Repertoire of <i>Dewa Muda</i> In Mak Yong Performance	44
2.3.7 Aesthetic in Mak Yong	46
2.4 Aesthetic	49
2.5 Aesthetic Experience	52
2.5.1 AX in Today's Technology	58

2.6	Emotion and Theatre	59
2.7	Emotion	62
2.7.1	Emotion in Facial Expression	69
2.8	Motion Capture (MoCap)	70
2.8.1	Type of Motion Capture	71
2.8.2	Facial Motion Capture	73
2.8.2.1	Commercial Facial Expression Systems	76
2.9	Summary	76

CHAPTER 3 METHODOLOGY

3.1	Introduction	77
3.2	Research design	78
3.3	Design Thinking	79
3.4	EMPHATISE	81
3.4.1	Observe	81
3.4.2	Engage	81
3.4.3	Watch and listen	83
3.5	DEFINE	84
3.5.1	Issues in Mak Yong	85
3.5.2	Mak Yong's Dewa Muda and other Components	86
3.5.3	AX and Basic Emotion	87
3.6	IDEATE	90
3.6.1	Procedure for Facial Expression	91

3.7	PROTOTYPE	96
3.7.1	Research workflow	97
3.7.2	Stimuli	98
3.7.3	Prototype and Ideate	100
3.8	TEST	104
3.8.1	Qualitative	104
3.8.1.2	Semi-structured Interview	109
3.8.1.3	Focus Group	110
3.8.1.4	Virtual Focus Group	113
3.8.1.5	Population and Sampling	116
3.8.2	Verification	116
3.8.3	Data Collection and Analysis	120
3.8.4	Likert Scales	121
3.8.5	Test and Other stages	122
3.9	Summary	122

CHAPTER 4 ANALYSIS FINDINGS

4.1	Introduction	123
4.2	The Analysis through research questions	123
4.3	The level acceptance for digitising Mak Yong amongst novice and expert practitioners	124
4.4	The significance of digital technology in preserving Mak Yong	133
4.4.1	Mak Yong Aesthetic through Expert's perspective	142
4.4.2	Aesthetic in <i>Pak Yong</i> 's character appearance	144

4.5	Motion Capture (MoCap) technology contributes in preserving Mak Yong	145
4.6	Mak Yong in the form of animation based on facial Expression (experts)	149
4.7	Mak Yong in the form of animation based on facial Expression (FGD)	181
4.8	Expert's Aesthetic Experience on digital preservation of Mak Yong	209
4.9	Digital Preservation through Expert's Verification	213
4.9.1	Authenticity in Intangible Cultural Heritage	214
4.9.2	Training – Formal and Informal	227
4.9.3	Stage Presence	239
4.9.4	Recognition (Subject Matter Expert)	242
4.10	Digital Preservation through Social Media SocMed (Tools)	243
4.10.1.1	Bridging Performance and Audience	245
4.10.1.2	Building Personal Brand and Endorsment	247
4.10.1.3	Brand Positioning- Mak Yong Nowadays	254
4.11	Digital Preservation through New Media	257
4.11.1.1	Edutainment as Creative Content	257
4.11.1.2	Different Media Platform	268
4.11.1.3	Future Technology	273
4.12	Visual Representation	275
4.13	Summary	278

CHAPTER 5 DISCUSSION

5.1	Introduction	279
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5.2	Discussion	280
5.2.1	Research Objective One: To examine the willingness amongst novice and expert practitioners to embrace Mak Yong in digital format	280
5.2.2	Research Objective Two: To explore the potential of Motion Capture toward the process of preserving Mak Yong facial expressions by using digital technology representation	284
5.2.3	Research Objective Three: To propose a model of Aesthetic Experience (AX) that can improve Mak Yong's performance and preservation of digital experience	290
5.3	Recommendation	300
5.4	Implication	306
5.5	Summary	308
	REFERENCES	309

LIST OF TABLES

Table No.		Page
1.1	Research Objectives and Research Questions	7
2.1	The categorisation of documentation techniques. (Hassani, 2015)	20
2.2	Basic of Emotion (Kumari, Rajesh & Pooja, 2015)	63
2.3	Six Basic Emotion Modified. (Kumari et al., 2015)	64
2.4	Components of emotional processes associated with utilitarian and aesthetic emotions (Mastandrea, 2015)	68
3.1	Aesthetic emotions	90
3.2	Synopsis and dialogue used based on the six basic emotions	92
3.3	Experts in interview sessions	106
3.4	Participants in FGD	106
3.5	Elements in Focus Group (Grudens-Schuck, Allen and Larson, 2014)	112
3.6	Research Objectives, questions, methods and analysis medias used.	120
4.1	Reasons and rating towards clips	180
4.2	FGD 1 ratings toward all clips	205
4.3	FGD 2 ratings toward all clips	207
4.4	Themes and subthemes	212

LIST OF FIGURES

Figure No.		Page
1.1	The conceptual framework	9
2.1	Europeana Website. Source by Europeana, 2013	25
2.2	<i>Tarian Asyik</i> performed by dancers. Source from author's personal collection	28
2.3	Spiritual Mak Yong- <i>Main Teri</i>	31
2.4	<i>Main Teri</i> - healing the patient	31
2.5	Timeline of Mak Yong. Adapted from several sources.	32
2.6	Mapping of Mak Yong by author	33
2.7	<i>Tarian Menghadap Rebab</i> . Source by Aswara Dance Company (2012)	37
2.8	Characters on stage. Source from author's personal collection	40
2.9	Ibu Bota. Source from author's personal collection.	40
2.10	<i>Wak Nakhoda</i> .Source from author's personal collection.	41
2.11	Rebab troupe. Source from author's personal collection.	42
2.12	Musical Instruments for Mak Yong	42
2.13	Aesthetic experience Flow. Source and modified from Duffrene (1973) and Hagman (2005)	55
2.14	Aesthetic Experience Type. Source Ocnareescu et al. (2012)	56
2.15	Aesthetic Experience. Source Ocnareescu et al. (2012)	57

2.16	Plutchik's Wheels of Emotion. Source by Donaldson (2017)	65
2.17	Kinect Xbox . Source by Jacobs (2017)	70
2.18	Type of Motion Capture. Source by Nogueira (2011)	71
2.19	Motion Capture Suit and environment. Source from author's personal collection	72
2.20	Motion Capture – Perception Neuron. Source from author's personal collection	73
2.21	Markers placement with different mimics. Source by Edward, Dakpe, Feissel, Devauchelle and Marin (2012)	74
2.22	Facial expression classification block diagram. Source by Kumari, Rajesh and Pooja (2015)	75
2.23	Dynamixyz Performer (TrackLab, 2022)	75
3.1	Stanford d.school's design thinking framework.	78
3.2	Design Thinking Model (Chen & Pan, 2020)	80
3.3	Researcher engagement with Ghulam Sarwaar Yousof through one of his lecture series and workshops	82
3.4	Researcher with Mrs Zamzuriah while visiting ASWARA	83
3.5	Mak Yong promotional items and VCD	83
3.6	Selfie during Mak Yong workshop JKKN and Mak Yong music in Japanese Dance performance in ASWARA	84
3.7	Structure in <i>Dewa Muda</i>	86
3.8	A model of aesthetic appreciation and aesthetic judgments, Leder et al (2004)	88
3.9	Neutral Face identified	94
3.10	Tracking mode and entities set on Performer	95
3.11	Flow of Facial MoCap	96

3.12	Process Flow	97
3.13	Anger Scene	98
3.14	Disgust Scene	98
3.15	Fear Scene	98
3.16	Happiness scene	99
3.17	Sadness scene	99
3.18	Surprise scene	99
3.19	Character with unsynchronized facial movements	100
3.20	Character's Boris tested	101
3.21	Character's mouth testing	101
3.22	3D Robot	102
3.23	Character in CrazyTalk	102
3.24	Placing the headgear and resized	103
3.25	Original character 'Ray' from CG Tarian and modified character (Before and After)	103
3.26	Capturing session end	104
3.27	Flow of the Virtual Focus Group	114
3.28	Participant attend the Focus Group meeting using Google Meet	115
3.29	Feedback by animator	118
3.30	Feedback by traditional performance expert	118
3.31	Design Thinking is non-linear process applied in the research	119
3.32	Likert Response Label used in Simms, Zelazny, Williams and Bernstein (2019)	121
4.1	Diffusion of Innovation, La Morte (2019)	126

4.2	Programme structure for Bachelor of Multimedia (Hons) Animation, MMU	147
4.3	Expression on early second	150
4.4	Character's expressed surprise	153
4.5	Character's face facing to the <i>Peran</i>	156
4.6	Character's expressed fear	158
4.7	Character cried for help	159
4.8	Character's mouth wide opened	162
4.9	Character in disgust mode	163
4.10	Character talked to <i>Awang Lebat Sejambul</i>	165
4.11	Character's eyes getting bigger	167
4.12	Mouth opened	167
4.13	Character expressed angry	169
4.14	The character's expressed sadness	171
4.15	Characters feel sad and regrets in the dialogue	172
4.16	Gloomy face	174
4.17	The character's expressed happiness	175
4.18	Character in mood for love	176
4.19	Character smiles	177
4.20	Zamzuriah rating scale set for six (6) animation clips	178
4.21	Rosnan rating scale set for six (6) animation clips	178
4.22	Norzizi rating scale set for six (6) animation clips	179
4.23	Zolkipli rating scale set for six (6) animation clips	179

4.24	Surprise rating by FGD 1	183
4.25	Surprise rating by FGD 2	184
4.26	Fear rating by FGD 1	187
4.27	Fear rating by FGD 2	188
4.28	Disgust rating by FGD 1	190
4.29	Disgust rating by FGD 2	192
4.30	Anger rating by FGD 1	194
4.31	Anger rating by FGD2	195
4.32	Sadness rating by FGD 1	198
4.33	Sadness rating by FGD 2	199
4.34	Happiness rating by FGD 1	202
4.35	Happiness rating by FGD 2	203
4.36	Codes referred to themes and sub-themes from Atlas.ti 8	211
4.37	Themes from Atlas.ti 8	212
4.38	Zolkipli is working under UPSI	237
4.39	Harian Metro, Titis Sakti	241
4.40	Rosnan in stamp	242
4.41	Zamzuriah and her family during the TedxPetalingStreet.	243
4.42	Rosnan on TikTok	245
4.43	Youtube: Rosnan Rahman Channel	246
4.44	Youtube: Baizam Channel	246
4.45	TikTok: Baizamgeneration69	247
4.46	Rosnan Rahman on Harian Metro (2018)	249

4.47	Sample of character animation	275
5.1	Internet usage in Malaysia	281
5.2	Uncanny Valley Graph by Mori (2012)	288
5.3	Previous Aesthetic experience model (Leder et al., 2004)	291
5.4	AX triangulation	293
5.5	The Diamond Model	297

LIST OF ABBREVIATIONS

2D	Two dimensional
3D	Three dimensional
ASWARA/ ASK	Akademi Seni Budaya Dan Warisan Kebangsaan
AX	Aesthetic Experience
EU	European Union
FAC	Facial Action Unit
FBX	File type associated with 3D modelling applications
FGD	Focus Group Discussion
ICH	Intangible Cultural Heritage
MMU	Universiti Multimedia
MoCap	Motion Capture
MOV	QuickTime video format
MP3	A format for processing a digital audio file
SME	Subject Matter
Unesco	United Nations Educational, Scientific and Cultural Organization
UPSI	Universiti Pendidikan Sultan Idris
USM	Universiti Sains Malaysia
VR	Virtual Reality



LIST OF APPENDICES

- A Consent Form
- B Appointment Letter of ‘Pelantikan Sebagai Pakar
Penilai Kesahan Kandungan’
- C Expert Evaluation



CHAPTER 1

INTRODUCTION

1.1 Introduction

Cultural heritage provides identity and continuity for future generations by symbolizing and reflecting each community's uniqueness. Today, Malaysia is increasingly aware of preserving cultural heritage, both tangible and intangible, following the Ministry of Information, Communications, and Culture in 2004 (Mustafa & Abdullah, 2021; Mustafa & Abdullah, 2013). Numerous government-affiliated agencies and non-governmental organizations are actively involved in cultural activities; however, it is unclear whether these efforts are sufficient. This research is critical because it contributes to a better understanding of Malaysia's cultural heritage and how to preserve it in the digital age.

1.2 Research Background

Tangible cultural heritage does take on a physical form or structure. As a result, conservation is a necessary component of safeguarding. Additionally, tangible cultural heritage may be stored in a secure location or displayed in a museum. While visiting the museum, visitors can gain an appreciation for the values of the past and the cultural significance of the ancients (Rouhi, 2017).

Intangible cultural heritage (ICH), on the other hand, is just as significant as tangible cultural heritage. It is critical to preserve cultural diversity as the world becomes globalized (Tavares, Alves, & Vásquez, 2021). The safeguarding could be in preserving its connection to living cultures and its role in the holders' identity and allowing for the transmission of its various shades and colors to future generations (Lenzerini, 2011). Safeguarding the ICH benefits the country by increasing revenue, attracting tourists to come and visit the various cultural products, and creating new job opportunities for locals (Petronela, 2016). Even though ICH professionals are experts in their fields, they often struggle to translate their findings into something that communities or the general public can use (Stefano & Davis, 2017). In comparison to tangible cultural heritage, the new platform prioritizes the protection of intangible cultural heritage, particularly the only Malaysian performing art recognised by UNESCO, the Mak Yong.

Thus, the researcher will discuss several highlighted topics in this research, including Mak Yong, a performing art that combines dance and theatre, the effects of digital technology such as Motion Capture (MoCap), preservation issues and

challenges, and the theory of Aesthetic Experience (AX) in relation to Intangible Cultural Heritage (ICH).

1.3 Research Problem

Mak Yong, a Malaysian performing art, is one of the intangible cultural heritages that UNESCO recognised and awarded the title "Masterpiece of Humanity's Oral and Intangible Heritage" in 2005. The Mak Yong has most likely existed for longer than a millennium. While a few studies have been conducted on the structure, music, and performance of Mak Yong, there is still a lack of research on the digital preservation of Mak Yong. Unlike any other intangible cultural heritages, there are difficulties in preserving Mak Yong. The researcher addresses this issue by demonstrating the findings of several other researchers regarding the preservation of intangible cultural heritages. In an interview, Ghulam Sharwar Yousof, an academician and author renowned for his expertise in traditional Malay and Southeast Asian theatre (Ramlan & Quayum, 2010), stated that the challenge is to resurrect a dying art form whose practitioners have largely died. There is no second tier to ensure the continuation of traditional art forms. Karima Bennoune, the United Nations' Special Rapporteur on cultural rights, believed Mak Yong, as one of the world's oldest performing arts, should be celebrated and appreciated rather than banned by the Kelantan government (Bernama, 2017). To overcome preconceptions about Mak Yong, a complete explanation or perhaps a reinterpretation of the dance is required. According to Yousof (1976), Mak Yong is an important study because it is one of the Malay Archipelago's oldest and most important traditional theatre forms.

Even though UNESCO designated Mak Yong as an Oral and Intangible Cultural Heritage of Humanity in 2005, it has yet to achieve the international acclaim accorded to other art forms. There is no implementation of any detailed proposal in the Candidature File. Yousof (Ramlan & Quayum, 2010) concluded that several factors contributed to Mak Yong's decline, including a lack of opportunities to see Mak Yong performances due to financial and sponsorship support, the death of older artists (only a few Malay have seen at least one performance in their lives), a lack of 'Angin' for artistic expression, loss of patronage, no longer performing at village fairs or other occasions as comedians and singers as well as, modern media such as film and television took place, and the changing values for education purpose have no longer exist. He also mentioned that many talented performers and artists changed their professions to become *che'gu* (guru or teacher) or government officers in order to cope with life's financial factors. Because no one wants to be a *dalang*, Mak Yong dancer, or other traditional performers, many Kelantanese, particularly talented musicians, and performers, migrated to Singapore, where they were paid S\$80 per day to work in factories or construction sites. They began performing Dikir Barat there and became more popular than in Kelantan (Ramlan & Quayum, 2010). As cited by Yousof (Ramlan & Quayum, 2010), he did believe the preservation is not only in the scope of heritage but also in other aspects;

Authenticity and preservation of traditional genres are important for many good reasons, apart from being heritage. Several outstanding examples can be used as models: the manner, for instance, in which Indian, Chinese and Japanese performing art forms have been preserved; the way in which our

Southeast Asian neighbours have managed to preserve their traditional theatre genres. (p.161)

Mak Yong's performance has only been studied in a few areas. Other current research has been done on certain topics such as management of Mak Yong performance, Mak Yong staging, repertoire, and script, and the study of audience perception of Mak Yong performance, including music, dance, costume, song, and language used (excluding research from experts such as Ghulam Sharwar Yousof and Ghouse Nasuruddin) (Matusky, 2015; Mohamad, 2012; Raj & Morgan, 2016). As a result, this digital study of Mak Yong's facial expression is critical in order to preserve it. Preserving Mak Yong is not conventional. Numerous technological devices can be considered, including video, static images, software, and Motion Capture (MoCap) technology. MoCap may be an alternative device to capture the Mak Yong facial expression due to the constraints of still images and the limited angle of video recording.

Recent research on the application of MoCap has demonstrated that this technology is beneficial and useful for preservation, particularly in ICH areas (Aristidou et al., 2015; Alivizatou-Barakou et al., 2018, Kico et al., 2018, Chao et al., 2016, Mustaffa & Idris, 2020). The researcher may visualize the Mak Yong in 3D using a 3D application such as Maya, MotionBuilder, Blender, or 3DMax and then export it as a video for digital preservation, archiving, or cultural promotion. Additionally, the generation of today is different from previous generations, as their knowledge and exposure to digital technology continue to grow daily. The millennial generation is considered digital-literate; it is critical to meet their interests through technologically innovative approaches. (Bratitsis & Kandroudi, 2014).

The study examined the application of Aesthetic Experience (AX). Experience is generated by the attributes of quality, intensity, value, and meaning before its transitions from the experience phase to the experience, and it is not self-generated. Ronen (1977) believed that the term "given" was appropriate when referring to a sensory stimulus that elicited an action on the percipient. Therefore, the AX can be described as involving three basic activities: 1) initial perception of the sensory surface elements and an ordering of these elements into a coherent form; 2) response to the content disclosed; and 3) the evaluation of the work in one's life (Schindler et al, 2017). Engagement in all three activities (sensory/formal, expressive, and evaluative) defines the experience as aesthetic.

1.4 Research Objectives

Within the research circle, the following objectives pertain to the preservation of Mak Yong's facial expression through Motion Capture (MoCap) technology. Thus, the study's proposed research objectives are as follows:

R.O 1: To examine the willingness amongst novice and expert practitioners to embrace Mak Yong in digital format.

R.O 2: To explore the potential of Motion Capture technology toward the process of preserving Mak Yong facial expressions by using digital technology representation.

R.O 3: To propose a model of Aesthetic Experience (AX) that can improve Mak Yong's performance and preservation of digital experience.

1.5 Research Questions

The following research questions have been formulated in accordance with the research objectives. Thus, the study's proposed research questions are as follows:

- R.Q 1: What is the level of acceptance for digitising Mak Yong amongst novice and expert practitioners?
- R.Q 2: What is the potential of digital technology in preserving Mak Yong, particularly its facial expressions?
- R.Q 3: How MoCap technology contributes to the representation of Mak Yong, particularly its facial expressions?
- R.Q 4: What does Aesthetic Experience (AX) offers in order to improve the digital preservation of Mak Yong?
- R.Q 5: To what degree can the AX affect the performer and audience in digital media?

Table 1.1

Research Objectives and Research Questions

Num	Research Objectives	Research Questions
1	R.O 1: To examine the willingness amongst novice and expert practitioners to embrace Mak Yong in digital format.	R.Q 1: What is the level of acceptance for digitising Mak Yong amongst novice and expert practitioners?
2	R.O 2: To explore the potential of Motion Capture technology toward the process of preserving Mak Yong facial expressions by using digital technology representation.	R.Q 2: What is the potential of digital technology in preserving Mak Yong, particularly its facial expressions? R.Q 3: How MoCap technology contributes to the representation of Mak Yong, particularly its facial expressions?
3	R.O 3: To propose a model of Aesthetic Experience (AX) that can improve Mak Yong's performance and preservation of digital experience.	R.Q 4: What does Aesthetic Experience (AX) offers in order to improve the digital preservation of Mak Yong? R.Q 5: To what degree does the AX can affect the performer and audience in the



digital media?

The study has three (3) objectives. The first objective is to ascertain novice and expert practitioners' acceptance of digitising Mak Yong based on research above. The research question is straightforward: what is the level of acceptance for digitising Mak Yong among novice and expert practitioners? The second objective is to investigate the possibility of using MoCap technology to preserve Mak Yong's facial expressions digitally. However, two (2) research questions are posed for this purpose. There are 1) what is the significance of digital technology in preserving Mak Yong, particularly its facial expressions? and 3) how MoCap technology contributes to the preservation of Mak Yong, particularly its facial expressions? These questions are critical in order to understand what digital technology may offer in terms of cultural heritage preservation and motion capture potential in the modern era. Thirdly, to propose an Aesthetic Experience (AX) model capable of enhancing the performance and preservation of Mak Yong's digital experience. There are two research questions which are 1) what does Aesthetic Experience (AX) offers in order to improve the digital preservation of Mak Yong? and 2) to what degree does the AX can affect the performer and audience in the digital media? The theory of Aesthetic Experience will be explained.



1.6 Research Framework

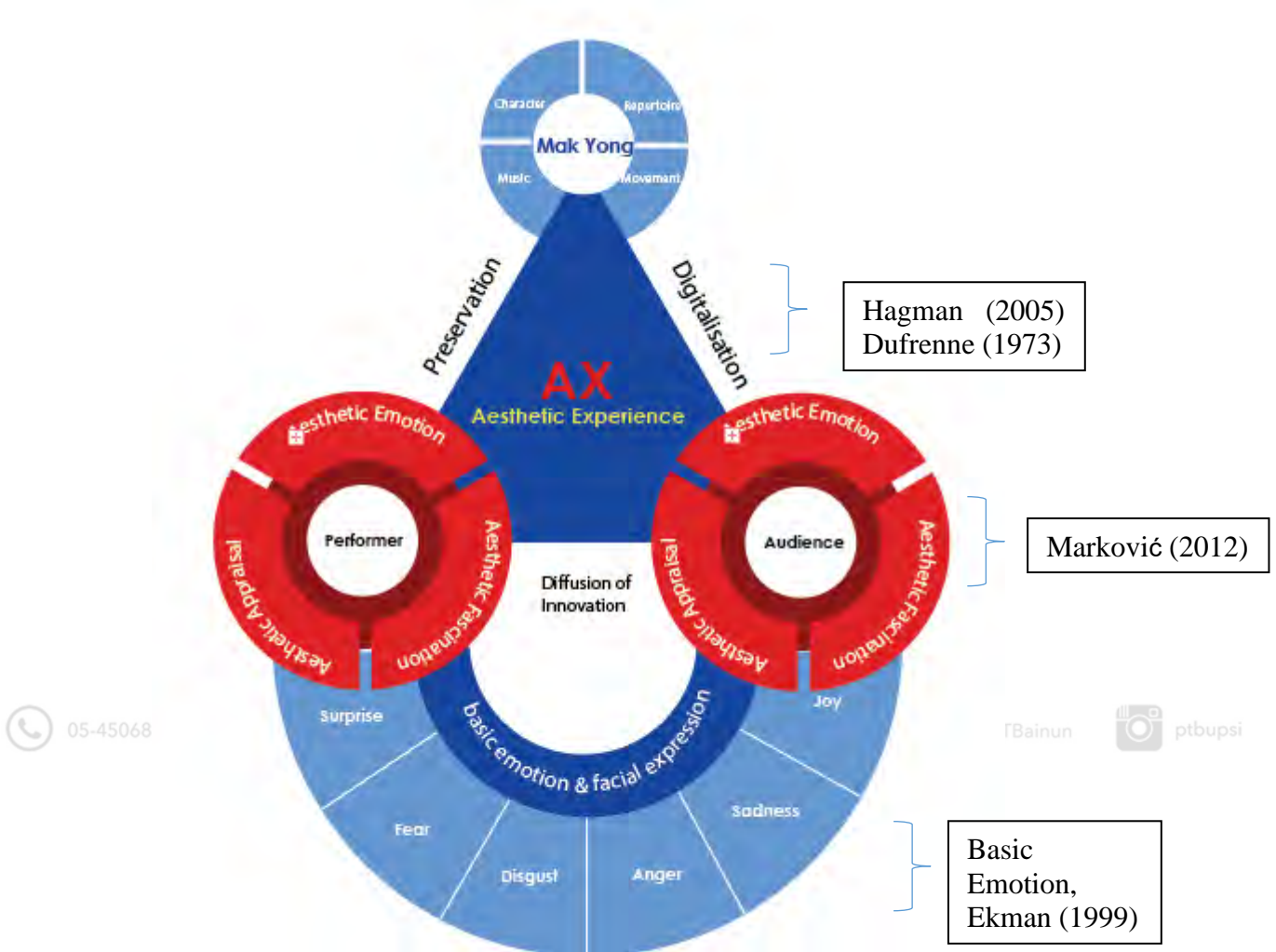


Figure 1.1. The conceptual framework

The first triangle above was basically how the connections has been made. It is composed of an object, a performer, and an audience, according to the Aesthetic Experience AX theory (Hagman, 2005; Dufrenne, 1973). The AX is almost identical to arousal or so-called interestingness in this proposed research framework and can be divided into three components: i) aesthetic fascination, ii) aesthetic appraisal, and iii) aesthetic emotion based on Marković model (2012). According to him, there are three

specific characteristics which are fascination towards aesthetic object (high arousal and attention), secondly, the appraisal of the symbolic reality of an object. This is basically linked to the high cognitive engagement, lastly, the strong feeling of unity with the object of aesthetic fascination and aesthetic appraisal.

While performing, the performer's aesthetic experience has emerged. However, the audience's aesthetic experience in digital may differ from that of the performer, particularly in the case of digital-motion facial capture. The researcher will use basic emotions as part of the stimuli for Mak Yong performance. According to Ortony (2022), the basic emotion must be in the state of intentional, valenced, and conscious. In this conceptual, Ekman basic emotions (1992) will be used. There are surprise, fear, sadness, happiness, disgust and anger.

1.7 Significance of Research

As the country develops rapidly, it is critical to preserve its cultural heritage. Generally, preservation and heritage are viewed as antagonists to economic growth and development; however, both have significant potential and can work in tandem to advance a country's development (Petronela, 2016). This research is necessary because it has the potential to benefit the long term in a variety of ways, most notably through sustainable economic growth and the development of a balanced individual. Therefore, it is critical to adopt digital technology such as MoCap to capture Malay cultural heritage, particularly intangible, for the benefit of the country, the community, experts, and researchers.

a) Community

Recognizing a community's uniqueness entails being able to identify the culture being practiced. Thus, Mak Yong is a heritage that the local community, particularly those who live in Kelantan, Terengganu, Kedah (Malaysia), Pattani (Thailand), and Riau (Indonesia), should become acquainted with. Knowledge is expanded either through practice or by acknowledging it as a part of the tradition. This research will benefit the local community by preserving the Mak Yong dance theatre for future generations and the global community.

b) Choreographer/ Adiguru / Dancer / Expert

Typically, the Adiguru or choreographer taught students in a conventional manner (face to face). However, the lesson took significantly longer than anticipated. In 2020, a new standard of learning was established due to Covid-19. Indeed, choreographers should consider additional factors when instructing a large group of students and demonstrating complex movements. Adiguru can expand and share their knowledge of various types of intangible cultural heritage through digital technology, particularly those involved in the performance. The technology then becomes a potential tool for data collection and preservation and a tool for novice performers to learn. In the future, amateurs may use this as a reference.

c) Researcher and Student

A student or researcher may benefit from this research by learning how research has been conducted to preserve intangible cultural heritage. The techniques and methods described here may also be applied to other intangible cultural heritage items, most notably facial expressions.

1.8 Limitation

The scope of this research will be limited to a single Mak Yong - Mak Yong Kelantan. The Mak Yong is a performance of dance theatre. As a result, this study concentrated exclusively on the emotions expressed through the facial expressions of single characters in Mak Yong's repertoire or story. Pak Yong's facial, the chosen character, will be played by an experienced and expert performer in Mak Yong. Furthermore, Mak Yong's performance will be divided into a few clips based on specific scenes or plots from the Dewa Muda story. Given that Yousof (1976) believed Sheppard provided ten 'authentic' stories out of a dozen, he asserted that Dewa Muda is the most significant and claims to be the original story in Mak Yong's repertoire. He proposed segmenting the performance into seven episodes. However, the researcher divided scenes into six (6) basic emotions to extract the most noticeable facial expressions while adhering to the Dewa Muda story structure.

Mohamad (2012) asserted that Mak Yong existed long before the country's Islamization, while Zainuddin (2012) argued that preservation of Mak Yong should begin in the 1920s;

As a traditional Kelantanese art form, Mak Yong would be performed 'in the round' on a raised stage, with costumes or set elements reflecting court protocol. At least since the form was introduced to the Kelantan court in the 1920s, the color tradition and troupes have been established (Eleeza Zainuddin, 2012, p.2)

At the moment, Mak Yong's digital performance is quite different from previous years. Digitization now captures the Mak Yong directly in video format. The researcher will use facial animation to represent Mak Yong visually. However, the researcher will make several suggestions during the data collection session, such as animation ranging from simplistic to realistic. Additionally, the researcher used semi-realistic facial expression animation rather than advanced animation. This animation is suitable and meets the basic minimum criteria established by experts for use in the research.

1.9 Definition of Terms

Intangible Cultural Heritage (ICH)

There are two categories in cultural heritage which are tangible cultural heritage and intangible cultural heritage. Basically, previous research focused on preservation of tangible cultural heritage which is physical artefacts such as monuments, buildings, landscape. The intangible cultural heritage or known as ICH, in other hand is a practice, representation, expression, knowledge, or skill.

Mak Yong

Several traditional performances may be found in Malaysia. Mak Yong is an ancient form of performance that combined combines acting, vocal and instrumental music, gestures and elaborate costumes (UNESCO). It is the only performance that has been recognised by the UNESCO in Malaysia.



Aesthetic Experience (AX)

AX or known as aesthetic experience is denotes to the individual's subconscious experiences response from a psychological connection to fit in all past beauty experiences especially during art and beautiful objects appreciation that leads to creativity and innovation (Chang & Jaisook, 2020).

Facial expression

Expression from facial is varieties of motion and position of muscle beneath of face's skin. It conveys important visual cue in normal communication (McCarthy & Warrington, 1990) such as the emotional state of an individual.



Motion Capture (MoCap)

Motion Capture is basically referred to the process of recording the movement of people and objects. The MoCap is low latency, close to real time and the results can be obtained. Presently, it has been used widely in FX studios, sports therapists, neuroscientists, and for validation and control of computer vision and robotics.

Digital technology

Digital technologies comprise of electronic tools, systems, devices and resources that generate, store or process data. According to Kapur (2018), objective of digital technologies is to form a connection between the individuals rapidly, effortlessly and cost-effectively. The application of digital technologies range mostly on all sectors,



from manufacturing to professional services, health services, agriculture and more (Ciarli, Kenney, Massini & Piscitello, 2021).

1.10 Summary

This chapter discusses the research introduction, which includes the research background, problem, objectives, questions, and a framework. Additionally, the significance of research and its limitations are clarified.