

Content Analysis of Interactive Elements and Cultural Representation in Digital Learning Content on Malaysian Traditional Dance

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ABSTRACT

Traditional dance is an essential element of Malaysia's cultural history, but public interest and knowledge, especially among the younger generations, are still declining due to the influence of digital media and modern entertainment. Therefore, digital learning platforms provide a promising way to conserve and promote traditional dance through interactive and engaging learning. This study is to examine the interactive components and cultural representation inherent in digital learning content linked to Malaysian traditional dance. A qualitative content analysis approach was used to analyse eight selected digital learning contents on digital platforms such as YouTube. The examination focused on two primary components: interactive aspects (animation, audio, navigation and interaction) and visual design; and cultural representation (traditional attire, dance movement, music and cultural symbolism). The results demonstrated that audio, visual design, dancing movement and music were always present in all the examined samples, but animation and navigation elements were less prevalent. Dance movement, music and cultural symbols were highly represented in most digital learning items concerning cultural representation. The study indicates that interactive learning features are successfully integrated with cultural content in digital learning settings, contributing to cultural awareness, audience engagement, and the preservation of Malaysian traditional dance heritage. These results show the possibility of utilising digital learning as a means of continuing traditional cultural knowledge among the younger generations.

Keywords: Interactive learning, Traditional dance, Cultural appreciation



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1 INTRODUCTION

Malaysia is a multicultural country having a lot of traditional dances that reflect its cultural identity and heritage. Conventional dancing is considered a vital intangible cultural resource for the preservation of cultural values and for the continuation of customs from one generation to the next (UNESCO, 2003). However, younger generations' involvement with traditional performing arts has been declining due to globalisation and the increasing dominance of digital entertainment platforms (Lim & Tan, 2021). This evolution has resulted in a lower interest in traditional cultural activities and a lack of public knowledge of Malaysian traditional dance history (UNESCO, 2003).

To resolve these issues, digital technology and interactive methods of learning have been used to improve cultural teaching and public participation. Interactive multimedia learning environments

that include visual, audio, animation, and user interaction have been found to improve learning efficiency and engagement of users (Mayer, 2014). Digital learning platforms also provide potential for exploring traditional cultural information in more engaging and accessible ways (Raheb et al., 2020). Because of these changes, however, little is known about how the interactive features and cultural representation are offered in Malaysian traditional dance digital learning settings. Earlier works have focused on AR, motion capture and digital archiving of dance history. Nevertheless, there have been few research conducted to study the integration of interactive features and cultural representation in digital learning content for Malaysian traditional dance.

1.1 Research Objective

The objective of this study was to identify and analyse the types of interactive elements embedded in digital learning experiences of Malaysia traditional dance and to examine how cultural elements are represented within interactive learning content of Malaysia traditional dance.

1.2 Problem Statement

In the digital age, traditional dancing in Malaysia is confronted with numerous obstacles. First, globalisation and fast technological progress have altered the way people consume entertainment and cultural content. Younger audiences are more inclined towards current digital media than conventional performance formats. This development has led to the diminishing visibility and importance of traditional dance in everyday life, thereby making it less appealing to the modern audience (Mohd Asnari Taim et al., 2025).

Second, interest in traditional dancing has been noticeably waning in the younger generations. Traditional dance is intangible cultural treasure, and it can only survive if people continue to participate and appreciate it. However, there is a concern that these cultural traditions would slowly disappear and lose their meaning with time if younger audiences are not actively involved (IMPAC, 2023).

Besides, the level of public awareness towards traditional dance in Malaysia is still quite low. Many people don't have a wide knowledge of traditional performances, which could impair their understanding and appreciation of cultural values. This unawareness leads to low engagement and undermines the attempts to preserve cultural assets (Albattat et al., 2016).

2 LITERATURE REVIEW

This literature review analysed previous research linked to digital learning, interactive aspects and cultural representation in digital media. It focuses on the interactive technology and multimedia learning in helping the cultural education and improving the audience's involvement especially in learning Malaysian traditional dance. This section also presents the function of cultural representation in the preservation of the uniqueness and cultural significance of traditional heritage through digital learning platforms (Hall, 1997; UNESCO, 2003). This literature review gives a fundamental grasp of the relationship between interactive learning and cultural appreciation among younger generations based on prior studies (Mayer, 2014; Raheb et al., 2020).

2.1 Digital Learning in Cultural Education

Digital learning has become important instruments in cultural education, especially in the preservation and promotion of traditional arts for new generations. Interactive digital media such as multimedia applications, motion graphics, augmented reality and online learning settings, might potentially facilitate engagement with cultural content in more accessible and engaging ways (Raheb et al., 2020). Multimedia learning that combines visual, auditory, and interactive parts can boost the effectiveness of learning and user involvement (Mayer, 2014). Digital technologies are also used as a

means of protecting intangible cultural heritage through enhanced accessibility and cultural participation via digital experiences (UNESCO, 2003).

Digital learning environments allow users to grasp dance moves, costumes, music, and cultural connotations beyond physical performances in the case of traditional dancing (Raheb et al., 2020). Traditional dance is considered as an important component of intangible cultural heritage that should be continuously sustained and transmitted between generations (UNESCO, 2003). Digital technology also plays an important role in the protection of cultural assets and the raising of public awareness among younger generations (UNESCO, 2022). Modern younger generations are more attracted to digital media and interactive entertainment than conventional ways of cultural learning (Lim & Tan, 2021). Hence, digital learning platforms are now more significant in preserving cultural awareness and in fostering traditional legacy in modern culture (Mayer, 2014).

2.1.1 Interactive Elements in Digital Learning

Interactive elements play an important role in enhancing user engagement and participation within digital learning environments (Domagk et al., 2010). Features such as animation, motion graphics, clickable navigation, quizzes, audio feedback, and gesture-based interaction create more immersive learning experiences compared to passive learning methods (Mayer, 2014). Interactive multimedia environments can increase motivation and support active learning processes among users (Raheb et al., 2020). Interactivity also improves cognitive engagement and enhances knowledge retention during the learning process (Domagk et al., 2010).

In digital cultural learning, the interactive elements inspire users to explore cultural content actively instead of just seeing it (Hyora et al., 2013). Interactive media environments increase emotional engagement and learning satisfaction through responsive digital experiences and user participation (Hyora et al., 2013). Younger audiences are well familiar with technology-based communication and entertainment platforms, therefore interactive multimedia tactics are more effective in gaining their attention (Lim & Tan, 2021). Aspects such as object, content, interaction and environment are critical in the development of immersive user experiences in digital media contexts (Hyora et al., 2013). Therefore, the analysis of interactive features is important in understanding how digital learning experiences can facilitate engagement with Malaysian traditional dance (Raheb et al., 2020).

2.2 Cultural Representation in Digital Media

Cultural representation is the process of observing cultural identity, customs, symbols and values transmitted in media content (Hall, 1997). Representation plays a crucial influence in the way an audience understands and interprets cultural meaning in the context of digital media (Hall, 1997). In the digital learning environments, it is necessary to authentically and respectfully reflect the traditional legacy culturally to the audiences (UNESCO, 2003).

In the context of Malaysian traditional dance, cultural representation might include traditional costumes, music, dance movements, narrative, rituals and cultural symbolism (Albattat et al., 2016). Proper portrayal of culture in digital media can lead to an increase in public awareness and appreciation of cultural heritage (Albattat et al., 2016). Moreover, authenticity is equally crucial for the protection of intangible cultural property against cultural loss and misrepresentation (UNESCO, 2003). However, current digital versions might sometimes simplify or alter the original cultural connotations for modern viewers (Lim & Tan, 2021). Excessive Modernisation in digital media could erode cultural authenticity and weaken traditional identity if cultural features are not presented correctly (Hall, 1997). Therefore, it is important to examine the depiction of culture in the digital learning content to ensure that the history of traditional Malaysian dance is adequately taught yet the cultural significance is intact.

3 METHODOLOGY

3.1 Research Design

In this study, a qualitative content analysis approach was adopted to examine the interactive features and cultural representation in the digital learning of Malaysian traditional dance. information Analysis is, as Krippendorff (2013) states, a systematic approach of drawing meaningful conclusions from visual and multimedia information in its contextual meaning. This approach enables the discovery of patterns and traits associated with interactive learning aspects and cultural representation in digital learning environments (Bengtsson, 2016). A sample of six digital learning contents related to traditional dance and digital cultural learning was selected for data analysis. The samples were selected based on digital learning contents that include multimedia learning elements, visual interaction, and cultural representation.

Interactive Elements and Cultural Representation adapted from previous studies, which include animation, audio, navigation and interaction, motion graphics and visual design, traditional costume, dance movement, music, and cultural symbolism.

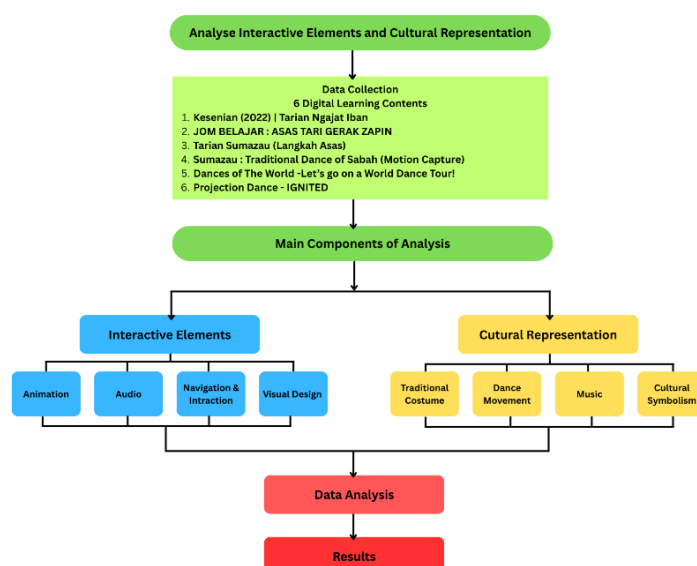


Figure 1 Framework of Study
(Adapted from Hyora et al., 2013)

4 SAMPLE OF DIGITAL LEARNING CONTENT

It used a purposive sample technique to select eight digital learning contents based on their relevance to the research objectives. Videos were searched on YouTube using keywords such as “Malaysia traditional dance”, “traditional dance tutorial”, “dance learning video”, “motion capture dance”, “interactive dance learning”, “Ngajat dance”, “Sumazau dance tutorial”, and “Zapin dance tutorial”. The videos needed to be publicly available, related to traditional dance or cultural learning and have observable elements of interactivity (e.g. animation, audio, navigation, interaction or visual design) as well as elements of cultural representation (e.g. traditional costume, dance movement, music or cultural symbolism). Videos not linked to dance education, duplicate content, promotional clips or videos with low visual and audio quality were eliminated from the analysis. The eight chosen videos included different digital learning contents which are educational videos, tutorial-based learning, motion capture demonstration, animation, projection mapping, and culture storytelling. Hence, a comprehensive analysis on the interactive elements and cultural representation in the digital learning environment on the Malaysian traditional dance can be made.

Table 1 Selection of Digital Learning Content Based on Interactive Learning and Cultural Representation Available on Digital Platforms

No	Digital Learning Content	Traditional Dance	Label	Interactive Elements	Publisher/ Platform Channel
1	Kesenian(2022) Tarian Ngajat Iban 	Ngajat	V1	Educational Video	DidikTV KPM YouTube
2	Tarian Sumazau (Langkah Asas) 	Sumazau	V2	Movement Learning	Sabah Cultural YouTube Channel
3	Jom Belajar: Asas Tari Gerak Zapin 	Zapin	V3	Tutorial Learning	Cikgu Murni YouTube
4	Sumazau: Traditional Dance of Sabah (Motion Capture) 	Sumazau	V4	Motion Capture	Motion Capture YouTube Research Project
5	Dances of The World – Let’s Go on a World Dance Tour! 	Various Traditional Dances	V5	Animation & Multimedia	TED-Ed/ Educational YouTube Channel
6	Projection Dance–IGNITED 	Contemporary Projection Dance	V6	Projection Mapping & Visual Interaction	Projection Dance YouTube Group
7	IKid You Not: The Art of Malay Dance Offstage 	Malay Traditional Dance	V7	Cultural Storytelling & Heritage Representation	Esplanade Theatres YouTube On the Bay
8	Tutorial Asas Tarian Tradisional Melayu (Tarian Asli) 	Tarian Asli	V8	Tutorial Learning & Movement Guidance	PADAT TV YouTube

5 DATA ANALYSIS

Table 2 Analysis of Interactive Elements and Cultural Representation Components of
Interactive Elements and Cultural Representation

Code	Interactive Elements				Cultural Representation			
	Animation	Audio	Navigation & Interaction	Visual Design	Traditional Costume	Dance Movement	Music	Cultural Symbolism
V1	(/) TV graphics and motion transitions	(/) Narration, traditional music and sound effects	(/) Presenter interaction and dance demonstration	(/) Studio setting, graphics and text layout	(/) Traditional Ngajat Iban costume	(/) Demonstration of Ngajat dance movements	(/) Traditional dance music	(/) Iban cultural identity and traditional attire
V2		(/) Tutorial narration and music	(/) Step-by-step dance guidance	(/) Clear instructional video layout		(/) Clear instructional video layout	(/) Traditional music accompaniment	(/) Kadazan dusun cultural dance identity
V3		(/) Tutorial narration and music	(/) Guided Zapin dance learning	(/) Educational video presentation		(/) Basic Zapin dance movements	(/) Traditional Zapin music	(/) Malay traditional dance heritage
V4	(/) Motion capture animation	(/) Music and audio accompaniment		(/) 3D digital character presentation		(/) Motion captured Sumazau movements	(/) Traditional music accompaniment	(/) Sabah traditional dance representation
V5	(/) Animation ,graphics and multimedia visuals	(/) Narration and background music		(/) Educational multimedia design	(/) Various traditional costumes	(/) Demonstration of world dance movements	(/) Traditional music from different cultures	(/) Cultural diversity and traditional heritage
V6	(/) Projection mapping and visual effects	(/) Music and sound effects	(/) Visual response to dance performance	(/) Dynamic projection and lighting effects		(/) Contemporary dance performance	(/) Performance music accompaniment	
V7		(/) Interview and cultural narration		(/) Documentary-style visual presentation	(/) Malay traditional costume	(/) Malay dance demonstration	(/) Traditional Malay music	(/) Malay cultural heritage and identity
V8		(/) Tutorial narration and music	(/) Guided movement learning	(/) Instructional video presentation	(/) Traditional Malay costume	(/) Tarian Asli dance movements	(/) Traditional Malay music	(/) Malay traditional cultural representation

(Adapted from Hyora et al., 2013; Hall, 1997; Mayer, 2014)

6 RESULT

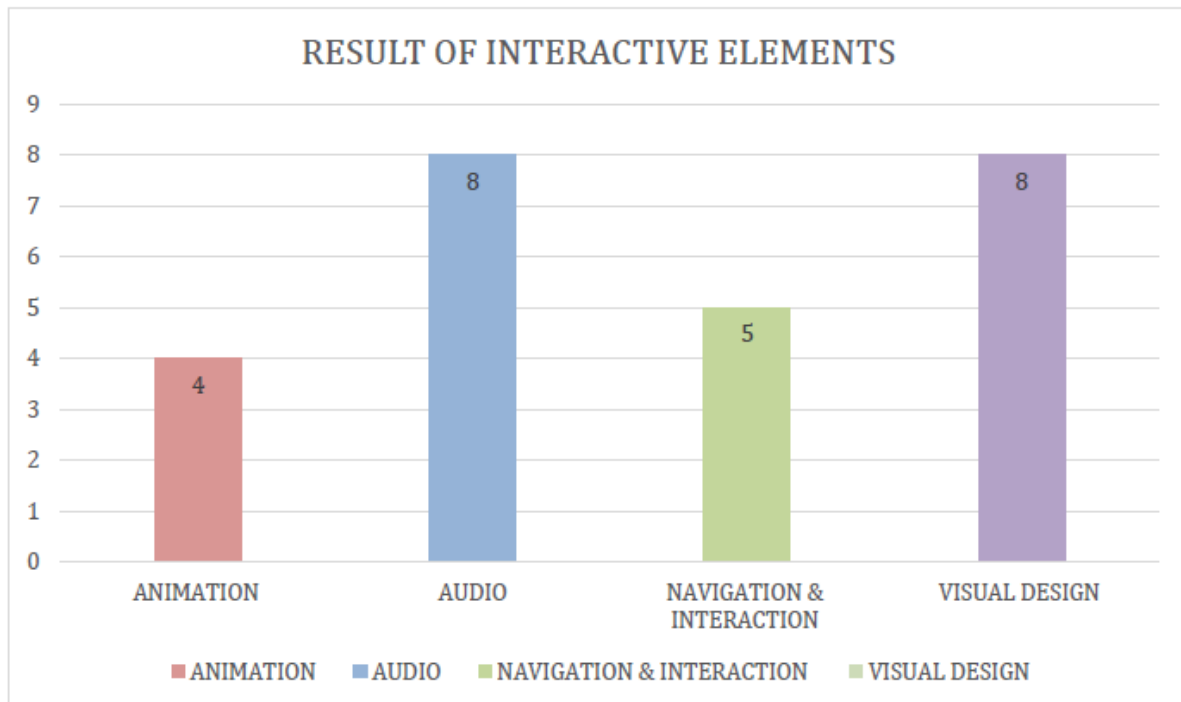


Figure 2 Result of Interactive Elements

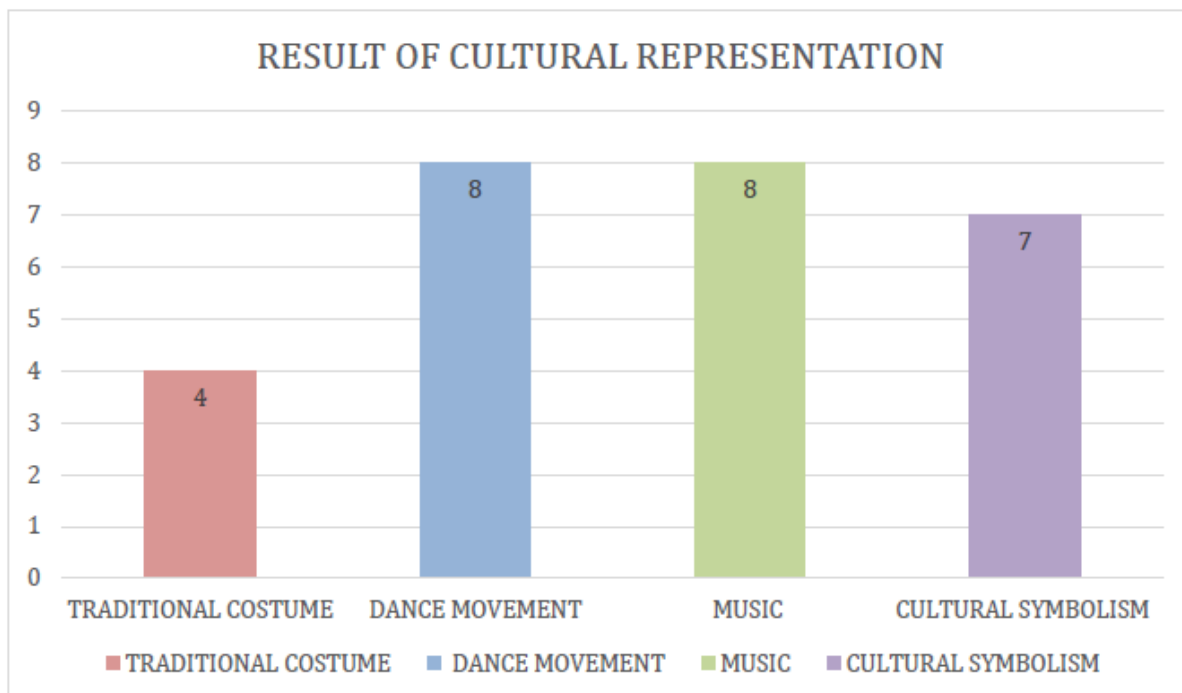


Figure 3 Result of Cultural Representation

7 FINDINGS

The results show that audio, visual design, dance movement and music are found in eight digital learning items which means 100% of the samples. This indicates that these aspects are basic elements in digital learning settings on Malaysian traditional dance. Audio and music are used consistently to

create compelling learning experiences, while visual design enhances effective presentation of cultural knowledge.

Navigation and interaction elements were also discovered in 5 of the 8 samples (62.5%) of the analysis. These aspects were mostly found in tutorial style learning films in which consumers are encouraged to follow dance moves and participate in the learning process. Active participation can enhance the user's engagement and learning effectiveness in interactive learning environments (Mayer, 2014).

Animation was seen in four of eight (50.0%) samples, particularly in digital learning content that included motion graphics, animation, and motion capture technologies. This conclusion implies that animation is a supporting element to promote visual engagement, but not a must in every digital learning environment.

Dance movement and music were reflected in all the samples examined (100%) in terms of cultural representation. The reason is that these portions are important to maintain the authenticity and distinctiveness of the traditional Malaysian dance. Seven samples (87.5%) were identified to have cultural symbolism which indicates that majority of digital learning contents still manifests cultural values, practices and legacy through visual and narrative features.

Traditional costume was present in four of the eight samples (50.0%). The lesser frequency may have been due to tutorial and technology-based content that was more about display of movement than cultural costume. However, traditional costumes are an important visual element in cultural representation and audience understanding of traditional dance heritage.

The results of the study proved that the digital learning content of Malaysian traditional dance is successfully able to combine interactive learning aspects with cultural representation. The application of multimedia elements with cultural content can improve learning processes and also contribute to the safeguarding and promotion of Malaysia's traditional dance heritage.

CONCLUSIONS

In conclusion, this study has examined the interactive features and cultural representation used in the digital learning content for Malaysian traditional dance. The findings indicated that audio, visual design, dance movement and music were always present in all selected samples, showing their value in enhancing user engagement and learning experiences. Animation and navigation interactivity further improved the efficiency of digital learning environments, especially in tutorial-based and multimedia learning content.

In addition, the study showed that cultural representation still exists in the use of traditional clothing, dance moves, music and cultural symbols. These characteristics are important to conserve and pass on the cultural identity of Malaysian traditional dance through digital channels. In conclusion, the inclusion of interactive learning features and cultural content shows the potential of the digital learning environment to enhance cultural awareness, encourage audience engagement, and support the preservation of Malaysia's intangible cultural heritage for the younger generation.

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AUTHOR CONTRIBUTIONS

All authors made equal contributions towards the production of this paper

CONFLICT OF INTEREST

There is no conflict of interest.

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