Malaysian Traditional Game (*Tradesa Melayu*) Learning Application

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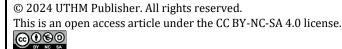
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Abstract

Traditional cultural heritage is now fading due to the current modernization. According to New Straits Times (NST), less than 5% of Malaysians are aware of traditional cultural heritage, a worrying trend that must be addressed. This study aims to develop applications for Malaysian traditional games that will empower them within the community. In addition, the method employed to complete this project is the ADDIE model which has five stages, namely Analyse, Design, Develop, Implement and Evaluate. This is a recommended core component for all application development projects. Furthermore, this application *Tradesa Melayu* should be developed so that younger generations, such as children, are aware of Malay cultural heritage and spend more time outside. Encouraging children to spend more time outside provides them with a range of physical, mental, emotional and social benefits while fostering a lifelong appreciation for the natural world. Following that, the application *Tradesa Melayu* includes four distinct sections: game list, game history, quizzes, and extra game. This application also includes interesting background music, sound effects, and animations to pique the user's interest. According to the study's findings, kids have a positive and supportive response to the *Tradesa Melayu* application and believe that it helps introduce traditional Malay games to the public. It is hoped that the success of the development of this application can be commercialized in the future as less applications like this are developed.

1. Introduction

The Malaysian society, which consists of various races, religions, and nationalities, has created various cultures that should be maintained for the benefit of future generations. Traditional games are one of the cultures that form part of the life lived by our ancestors. Traditional games help dictate how individuals or groups interact with one another, and it also offers guidelines for how people should regard their surroundings while playing together. *Guli, congkak, wau, galah panjang, sepak raga,* and *gasing* are among the traditional games that often fill our ancestors' free time. In the past, playing traditional games as part of their everyday entertainment helped bring the community together and keep things moving along mellowly [1].

Modern games tend to make children more individualistic because they play alone. Things are different if children play traditional games, they can meet peers, work together, develop creativity, make strategies, and so

on. As a result, traditional games serve as platforms or media for kids' self-expression. Moreover, children's involvement in traditional games will sharpen the development in children's brains, generate empathy, develop social awareness, and develop creativity. Therefore, if modern games become more prevalent among children today, it will contribute to negative values in children that tend to forget traditional games that have many benefits that can be experienced. Traditional games have a great influence on the mental, physical, and mental development of children [2].

2. Literature Review

Traditional games are an integral part of a country's cultural heritage, reflecting its people's customs, values, and social interactions Malaysia is a diverse nation with a rich cultural background. Therefore, traditional games have played a significant role in the lives of its people for generations. This literature review explores the existing research and scholarly work related to traditional games in Malaysia, shedding light on their historical significance, cultural importance, and impact on social cohesion. In this Millennium era, the continuous development of technology has caused effects on the value of traditional games in Malaysia. Malaysian Traditional Games used to be a choice for leisure activities. Various versions of them have been digitized to compete in the game industry. However, due to their lack, modern contemporary games have overtaken traditional games as leisure activities [3].

In terms of the historical importance of traditional games, numerous studies have delved into the historical roots of traditional games in Malaysia, tracing their origins to the Malay, Chinese, Indian, and indigenous communities. In research in 2015, documenting the evolution of traditional games from ancient times, highlighting the influences of trade, migration, and colonialism. The study emphasized the role of traditional games in promoting physical fitness, cognitive development, and the preservation of cultural identity [4].

Next, in terms of classification and types of traditional games, in a study conducted in 2017, traditional games in Malaysia were classified into categories based on their nature, including physical, mental, and strategic games. This classification system allows for a comprehensive understanding of the diversity of traditional gaming networks in the country. This study also highlights popular games such as *congkak*, *batu seremban*, *sepak raga*, and *gasing*, providing insight into their rules, games and cultural significance [5].

In addition, despite their cultural importance, traditional games in Malaysia face obstacles in the modern period, including increased urbanisation, shifting lifestyles, and the influence of digital entertainment, all of which represent dangers to their continuity and preservation. In research in 2019, the efforts carried out by various organizations and institutions to promote and preserve traditional games have been examined. The review highlighted initiatives such as exhibitions, workshops, and educational programs to raise awareness and encourage participation in traditional games [6].

Traditional games have enormous cultural and historical significance in Malaysia, where they play a significant role in developing cultural identity, social cohesion, and educational development. This literature review on traditional games overviews the available studies, shedding light on their historical relevance, classification, and preservation attempts. Traditional games clearly demand acknowledgement and assistance to ensure their survival for future generations in Malaysia. More study is needed to investigate the possibilities of traditional games in modern culture and their significance in the digital era.

3. Problem Statement

Since this traditional game is still played, its popularity is dwindling. Therefore, the younger generation is unaware of it as the time passes. Many factors have caused this traditional game to be increasingly forgotten by younger society today. The primary source of this problem is the rapid pace of modern life. The traditional games that kids hardly ever play were one of the numerous contributing factors. Additionally, there is less time to play because of the expectations of academic values that are increasingly valued to be more important for their future and the playground is getting smaller due to building construction everywhere. As a result, traditional games will become obsolete as society prefers newer, modern, and more interesting games [7].

The gadget factor is not the only cause of the game being traditionally rarely played by children, but it turns out that the playground is growing narrow due to building construction everywhere and less time to play due to the demands of academic values that are increasingly prioritized to be more important for their future. As a result, traditional games will become obsolete as society prefers newer, more modern and interesting games [8].

As a solution, establishing an application connected to traditional games in Malaysia would empower traditional games in the community, preventing the Malaysian community from forgetting about outdated traditional games [3]. Creating a *Tradesa Melayu* application may teach the community about traditional games since they are part of the nation's legacy and culture and must be protected and appreciated so that they do not perish because of modernization and the existence of technology today [9]. The Malaysian community will be able to utilise this application as a resource to play traditional games with one another to improve ties. We can also engage in traditional games with individuals of all ages. Traditional games can promote team spirit among

participants. If this application does not exist, society may lose sight of the traditional form of gaming, which has several benefits. Our nation's legacy and culture are deteriorating because of modernization and the existence of modern technologies.

4. Project Methodology

A project methodology is a set of principles and instructions for planning, coordinating, and completing projects. In this study, the method we use is called the ADDIE model. Analyse, Design, Develop, Implement, and Evaluate are the five steps of the ADDIE model process (see Fig. 1). All application-based project development is advised to use this crucial component [10]. The explanation of each step was explained below:

Fig. 1 *ADDIE model*

4.1 Analyse

Gathering all the necessary information for a new or updated application and developing a rough prototype concept are both steps in the analysis process. The precise requirements for the *Tradesa Melayu* prototypes must be determined and specified during the analysis. This entails gathering information on the application's anticipated features, functionalities, and goals. Ensuring the prototypes fulfil the application's intended purpose depends on your ability to comprehend the requirements. Gathering all the necessary information for a new or updated application and developing a rough prototype concept are both steps in the analysis process.

Evaluating the usefulness and applicability of the present *Tradesa Melayu* prototype may be a step in the analytical process. As part of this evaluation, you may look at user input, market research, and technology developments. Examining prospective upgrades or better ways to achieve the project's goals is made possible by considering alternatives. For *Tradesa Melayu* to succeed, the end users' demand and preferences must be assessed. Interviews, user surveys, market analysis, and data analysis are all possible aids in this. Knowing the needs and expectations of the target market will help you modify the application to provide a user-friendly experience and meet their specific requirements.

The SRS papers, or the requirements for the software, have also received a lot of attention in the development of this *Tradesa Melayu* application. This is because it outlines each requirement for the system we want to build. This will make it easier for our *Tradesa Melayu* initiative to run smoothly.

4.2 Design

The design stage comes before the development stage, which is crucial. The general details of our project will be established at the outset, along with specifics like the *Tradesa Melayu* programme's network requirements, user interface, and application interface. As with this project, we'll offer a user-friendly design that will entice consumers to utilise our programme on a regular basis. Plans will be established for maintenance, operations, and training so that we will be aware of what must be done at each stage of the cycle moving forward.

The image below, Fig. 2, provides a depiction of the storyboard created by us. We debated and collaborated to create an appealing, user-friendly, and clean design that would capture users' attention and allow them to enjoy using the *Tradesa Melayu* programme. This storyboard was created with our target users in mind such as children. As a result, we modified the design of this *Tradesa Melayu* application on a regular basis to make it a nice and appealing application.

Fig. 2 *Storyboard for application*

4.3 Development

This project focuses on creating an application about traditional Malay games to pique users' interest and satisfaction while they use it. The author created a mobile phone application called (*Tradesa Melayu*) using Unity software. Fig. 3 (a) depicts the application interface, which includes five buttons for five different sections: game list, quiz, game history, additional games, and an exit button to exit the application. Users use the interface game type page to learn how to play traditional Malay games and to view the animation of each game selected by the user, as shown in Fig. 3 (b). Fig. 3 (c) illustrates the interface to learn the history of each type of traditional Malay game and provides audio text to attract users to learn the history of traditional Malay games. Fig. 3 (d) also depicts the interface of the Malay traditional game quiz page. This page contains traditional game scores and questions for users to answer and sharpen their minds in traditional Malay game knowledge.

|(a)|(b)|(c)|(d)|

Fig. 3 *Application interfaces (a) Main interface; (b) Traditional game type interface;*
(c) Traditional game history interface; (d) Traditional game quiz interface

4.4 Implementation

The actual implementation of the newly designed application is part of this step. For instance, the Google Play Store will host the launch of our final product. Because of this, any user can download and use it without charge on both a laptop and a smartphone. Application developers and end users should now be able to see project realizations that have included enhancements. To further the *Tradesa Melayu* project's development, we are again testing and debugging by testers who serve as supervisors, group members, and some of our friends.

In conclusion, the *Tradesa Melayu* project's implementation step entails publishing the app on the Google Play Store website and making it accessible for download on desktops and smartphones. To ensure quality, it also entails extensive testing and debugging. At this stage, the realization of project enhancements also becomes clear. These stages will help you make the programme usable for users while also bringing it to life and advancing its development.

4.5 Evaluation

The ADDIE Model's evaluation phase comes after all the other phases. We must assess this project's performance to ensure its design and instructional materials accomplish its goals. We employ both formative and summative evaluations in this period. Formative evaluations are internal assessments carried out at each stage of the ADDIE Model to gauge the team's ongoing growth and analyse *Tradesa Melayu* current project-process. As the emphasis is on the outcomes of the educational programme, the summative assessment, which takes place after the implementation stage, looks for authentic information about the true worth of *Tradesa Melayu* design.

In summary, formative evaluations are conducted throughout the development phase of the *Tradesa Melayu* project and a summative assessment is conducted following the implementation stage. To gather information about the efficacy of the design, the summative assessment also incorporates end-user feedback. These assessments are essential for determining the project's effectiveness, attaining goals, and making wise choices for future advancements.

5. Result and Discussion

The author collected information related to children's feedback about the *Tradesa Malayu* application by creating a Google Form to get feedback about this project. Based on a questionnaire made for UAT in the test phase using Google Forms. There are 10 people who have answered our questionnaire. The table below summarizes all the results obtained from user feedback.

Table 1 *Summary of the feedback on the application*

Question	Result
1. On a scale of 1 to 5, please rate your overall satisfaction with the application.	Very satisfied – 50% Somewhat satisfied – 40% Neutral – 10% Somewhat dissatisfied – 0% Very dissatisfied – 0%
2. Did you find the application's user interface intuitive and user-friendly?	Yes, very intuitive and user-friendly – 80% Yes, but it could be improved – 20% No, it was confusing and not user-friendly – 0%
3. Were all the features and functions you expected present in the application?	Yes, all of them – 60% Most of them –30% Some of them – 10% None of them – 0%
4. Did you encounter any issues or bugs while using the application?	Yes – 0% No- 100%
5. Do you recommend people to download and use our application?	Strongly Disagree –0% Disagree – 0% Agree – 20% Strongly Agree– 80%

Table 1 summarizes all user feedback. Most respondents are very satisfied with using *Tradesa Melayu* application. This shows that our application is an application that gives pleasure to users and is easy to use. Next, most respondents strongly agreed that our app's interface is user-friendly. The interface we build is based on the choices of people we have researched and researched on the internet. This shows that our app interface is good and has attracted users. In addition, most respondents are satisfied with this application's expected features and functions. We collect information from the internet and evaluate existing applications to provide important

features in applications. Most of the respondents did not encounter any issues or bugs while using our application. Every page and button of our app is well-connected and designed. We have also used icons and symbols that are easy for users to understand. Finally, most respondents recommend others to download and use our application because our application introduces and empowers the traditions and culture of traditional Malay games that are being drowned by the tide of modernity. This makes many children know how to play traditional games correctly and gives positive value to children when playing traditional games. Respondents have agreed that our app will be useful for many people.

6. Conclusion

In conclusion, the younger generation's decreasing interest and popularity of traditional Malaysian games pose a significant obstacle to the preservation of cultural heritage. By creating applications that enhance the visibility of traditional games that cultivate cultural values, the *Tradesa Melayu* initiative aims to alleviate this problem. If this application does not exist, society may forget about the traditional game type with many advantages. Our nation's heritage and culture are sinking because of the current modernity and the presence of today's technology.

To further study in this field, it is suggested to do a thorough inquiry to identify the specific challenges faced by traditional Malaysian games in the modern day. Collaboration with community organisations and educational institutions may be used to include these games into learning environments, increasing engagement potential. By actively involving consumers in the development process and seeking out their feedback, it will be possible to ensure continuous improvement and change to fit their needs. Working with historical and cultural organizations will also utilize their expertise in promoting and maintaining traditional games.

The *Tradesa Melayu* initiative may successfully restore and preserve traditional Malaysian games by implementing these suggestions, which would foster a fresh awareness for the country's cultural identity and legacy.

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Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

*The authors confirm contribution to the paper as follows: **study conception and design, data collection, draft manuscript:** Muhammad Iqbal Salman, Muhammad Zuhairi Zainurin, Muhammad Nukman Hafiz Burhanudin, Zuraida Ibrahim; **draft manuscript preparation:** Muhammad Iqbal Salman, Muhammad Zuhairi Zainurin, Muhammad Nukman Hafiz Burhanudin, Zuraida Ibrahim. All authors reviewed the results and approved the final version of the manuscript.*

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