

Representation of Malaysian Traditional Culture in 3D Games

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Declaration

I, Irish Lee Xin Yan, declare that this thesis report entitled "Representation of Malaysian Traditional Culture in 3D Games" is my own original work except for the citation from the references. The report has not been accepted or submitted to any party and will only be submitted to the Degree of Bachelor of Science (Honours) Game Development under the University Tunku Abdul Rahman.

A handwritten signature in black ink, appearing to be 'Irish Lee Xin Yan', written in a cursive style.

Signature:

Name: Irish Lee Xin Yan

Date: 23.11.2025

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Abstract

Mamak Dreams is a 3D cooking simulation game management where players operate an authentic Malaysian Mamak stall. Players are young chefs who, after losing their job, aim to provide Malaysian food using a stall. Players must serve food, make money, keep the stall clean, and avoid the problem of dirty urban levels. They will unlock levels and progress from a small wooden stall to a fully established shop.

The game includes cooking mechanics, time management, and simulation. The game embraces a strategy, multitasking, and problem-solving approach. The game is enhanced with Malaysian cultural elements. Some of the Malaysian culture elements include the authentic cuisine, stall setups, urban rural settings, and customer behaviors.

The main focus of the development of The Mamak Dreams is the 3D gaming implementation of Malaysian traditional culture, revealing dual purposes of video games for education and entertainment. The game provides intricate 3D environments, realistic cooking, and flexible customer experiences to provide the worlds of culinary and management.

This study uses collected gameplay observations and player feedback to see how player engagement and appreciation for Malaysian food can be increased and how gameplay can be made to be culturally immersive to players. This study draws the conclusion that an immersive and educational simulation can be made through the combination of real culture along with gameplay and visually engaging environments.

The results of this study, touch upon how to keep gameplay engaging while educating players on cultural traditions through the players' interactions with it while maintaining the gameplay, and offer how to design culturally immersive 3D games for players.

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1.0 Introduction and Overview

1.1 Background

The global game industry has expanded due to developments in rendering and design (Wolf, 2015). Contemporary games offer experiences outside of the fantasy and sci-fi realms. Now, developers incorporate elements of their heritage and history in games. Gamers find it emotionally engaging to experience game worlds that reflect reality and are culturally meaningful (Shaw, 2014).

Malaysia is known for its diverse Mamak food culture, incorporating Malay, Chinese, and Indian elements. Like many Southeast Asian nations, Malaysia has a culturally diverse heritage. Although maybe due to a lack of regional gaming projects, culturally inspired content is absent in the 3D games that are commercially successful (Ismail and Rahim, 2020). Some of the games that do come out of the region, use narratives and projects that reflect foreign elements and themes, and may not help contribute to the preservation of the nation's culture and the shaping of a strong national identity.

Malaysian Mamak stalls are a blend of diversity and a convergence of localized everyday social life, and culturally are a Malaysian phenomenon. 3D gaming can be a way to help build the emotional and symbolic association of heritage in a culturally relevant, modern, and engaging narrative. (Hassan, 2019).

1.2 Game Introduction & Research Motivation

The Mamak Dreams is a 3D game about cooking and food stall simulation, following a character that pursues their dream of opening a Mamak stall after losing a job. Based on Malaysian street food, players can experience what is like to run a food business to prepare food, serve customers properly, keep a stall clean, run from the police for illegal food vending, and how they can improve their food stall through time.

Through its setting, food recipes such as Mi Goreng and Roti Canai, and street stall design, as well as the story of hard work, the game captures different aspects of the Malaysian culture. As the game goes on, players progress from a small wooden food stall to renting a food stall, and finally owning a permanent food shop, which depicts small local businesses and how they grow in a realistic way.

This research is motivated by how Malaysian traditions and culture can be portrayed in the 3D game world, academically speaking, since there is very little to none. While there is research on cultural representation in films and animation, video games are different because they allow players to interact with cultural aspects, as opposed to just observing them (Gee, 2007). This study hopes to explore what 3D games can do to include Malaysian culture and how this type of representation impacts players' feelings of patriotism.

1.3 Problem Statement

In spite of the growing trend of culturally oriented games globally, traditional Malay culture still lacks proper representation in 3D games. A large number of the locally produced games tend to focus on universal themes or adopt foreign game trends without much regard for cultural representation and localization (Rahman & Yusoff, 2021).

The first major difficulty is that it is difficult to create accurate depictions of traditional cultural elements such as clothing designs, traditional implements used, food preparation techniques, and cultural settings in 3D games. The second problem is that it is hard to find an appropriate balance between maintaining cultural authenticity and creating entertaining game mechanisms.

Hence, the purpose of this research is to investigate ways through which traditional culture can be accurately incorporated into 3D games, the consequences of such representations for players' perception of their national identity, as well as the difficulties that come with the creation of authentic 3D game assets.

1.4 Research Objectives & Questions

1.4.1 Research Objectives

The main objectives of this study are:

1. To examine how Malaysian cultural elements, such as Mamak food culture, can be integrated into 3D game worlds.
2. To investigate whether cultural representation in 3D games can enhance players' sense of national identity.
3. To identify the challenges faced by game developers when designing culturally authentic 3D assets for Malaysian-themed games.

1.4.2 Research Questions

This study seeks to answer the following research questions:

1. How can Malaysian cultural elements (e.g. Mamak Culture Food) be integrated into 3D game worlds?
2. Can cultural representation improve players' sense of national identity?
3. What challenges do developers face when designing culturally authentic 3D assets?

1.5 Significance of Study

This study holds significance in several key areas:

1. **Cultural Representation and Preservation**

The research highlights the potential of 3D games as a medium for preserving and promoting Malaysian traditional culture in a modern digital format, making it accessible to younger generations (Hassan, 2019).

2. **Contribution to Game Design Studies**

By analysing *The Mamak Dreams*, this study provides practical insights into culturally driven game design, offering guidance for future developers interested in creating culturally authentic games.

3. **National Identity Development**

The findings contribute to understanding how interactive cultural representation can strengthen players' awareness of national identity through immersive gameplay experiences (Shaw, 2014).

4. **Educational and Industry Value**

The research supports the use of games as educational tools while offering recommendations that can benefit Malaysia's growing game development industry.

1.6 Scope and Limitations

1.6.1 Scope of Study

This study focuses on the design and development of *The Mamak Dreams* as a case study.

The scope includes:

1. The integration of Malaysian cultural elements into 3D environments and gameplay systems.
2. Analysis of cultural representation through narrative, food systems, and environmental design.
3. Player perception of cultural authenticity and national identity.

1.6.2 Methodological Limitations

This research primarily adopts a qualitative approach, including design analysis and player feedback. Limitations include:

1. Subjective interpretation of cultural elements by players.
2. A limited sample size, which may affect the generalisability of the results.

1.6.3 Theoretical Boundaries

The study is grounded in game design theory, cultural representation, and player experience research. It does not explore cross-national cultural comparisons or non-digital media representations.

1.6.4 Limitations of Practical Application

Several practical constraints are present:

1. Resource Constraints: Time, manpower, and budget limitations restrict the depth of cultural content implemented.
2. Technical Constraints: Game engine limitations may affect the complexity and realism of 3D cultural assets (Unity Technologies, 2022).

1.6.5 Team Roles and Responsibilities

The project was created through collaboration between a group of three members. Every member was provided with individual roles depending on his/her skills and specialization in order to create an efficient and smooth game development process.

Member	Role	Task
Chloe Hew Kha Yee	Game Designer	• Character 3D Models • All Character Movement Animation • All Ingredients, Foods and beverages 3D Models • 2D Arts (Recipes and Icons) • Game Props 3D Models • Storyboards • Ending Cutscenes
Irish Lee Xin Yan	Game Designer	• Level Design • 3D Game Props Model for Decoration • 3D Levels Environment • 3D Assets for Game Mechanic • 3D food （Nasi Lemak）

		• 3D Rats and Animation • 2D Assets for All Menu • Layout All Menu in Unity • 2D In Game Icon • 3D Animation Cutsscenes • Editor Sound Audio • Design Group Logo, Business Card, Posters
Sim Wee Puo	Game Programmer	• Player controls and movement functions • Interactive system • Ui functions • Cooking mechanics • Serving mechanics • Day change mechanics • Day night mechanics • Customer ai • Animal ai (dog and cat) • Cooking animation • Game particle system (water) • Game economic system • Game database management system • Game progress • Tutorial • Game audio system

1.6.5.1: Team Roles and Responsibilities

2.0 Background Studies and Literature Review

2.1 Research Background

In recent years, the gaming industry has grown very fast not just as entertainment, but also as an art form and educational platform (Deuze, 2007). In Malaysia, there is much discussion about developing video games based on the country's rich culture, using such unique features as local cuisine, architectural style, attire, and folklore (Koh & Tan, 2020).

The Mamak Dreams game combines cooking, business management, and social interactions in a single 3D setting based on real-life Malay Mamak stalls. Players of this game have to master cooking skills, handle a small stall business, and interact with the surrounding characters while embracing many Malaysian cultural aspects like street food culture and village-city lifestyle.

The paper analyzes how different cultural elements are incorporated into the game and what benefits this brings to both player experience and cultural identity of Malaysians. The issues faced during the creation of cultural assets will also be discussed.

2.2 Definition of Key Terms

To ensure clarity in this study, the following key terms are defined:

1. Malaysian Traditional Culture

Malaysian traditional culture refers to the customs, traditions, cuisines, attire, music, and art that have been part of the rich history of different ethnic groups in Malaysia, namely the Malay, Chinese, and Indians (Shamsul, 2014). Traditionally, Malaysian culture represents the multi-ethnic society in the country, with each ethnicity bringing its own unique culture into the larger fabric of society. As such, the term refers to both tangible as well as intangible expressions that include ceremonies, festivities, artwork, and even everyday activities.

The game *The Mamak Dreams* incorporates various interactive elements of Malaysian traditional culture. First, Mamak foods such as *Mi Goreng*, *Roti Canai*, and *Teh Ais* are part of the game. The setting of Mamak stalls including the wood counters, cooking tools, and street side dining is reflective of real-life Malaysian urban culture. Also, the game involves other social interactions like greeting customers, observing hygiene and making monetary transactions.

2. 3D Games

3D games are video games designed using three-dimensional graphics to simulate three-dimensional space for characters, objects, and environments (Rollings & Adams, 2003). Unlike the two-dimensional games, 3D games simulate the movement and manipulation of items and characters in a real-world volumetric space. In this regard, players are allowed to interact with objects, explore environments, and navigate through the layout to create an enhanced immersive experience in their gameplay.

In the game, *The Mamak Dreams*, 3D engine is used to replicate the environment of the Mamak stall, kitchen, and streets of Malaysia. With the help of 3D designs, players are able to walk around the Mamak stalls and streets, interact with the cooking facilities, and serve their customers among other actions. This enables a deeper level of immersion into the game by enhancing spatial awareness.

3. Cultural Representation in Games

Cultural representation in games refers to the use of symbols, practices, and narrative content borrowed from a certain culture as part of the visuals, storylines, and mechanics of a game (Taylor, 2006). In other words, it means the introduction of cultural attributes such as national costumes, food, architecture, folklore, language, etc. that help players learn about the culture and get engaged into its practices by developing empathy for it and feeling the sense of belonging to it.

In terms of *The Mamak Dreams* game, cultural representation cannot be seen only through aesthetics since it also includes introducing Malaysian cuisine, social interaction, urban-rural dynamic of social behavior, and traditional cooking practice into gameplay mechanics. Thus, players have to prepare the food, keep the stall clean, and satisfy customers' needs, which corresponds to the daily routine of a typical Mamak stall. In other words, cultural representation in the game serves as a medium for learning Malaysian culture and engaging into cultural practices.

4. Game Mechanics

Game mechanics refer to the processes, systems, and rules governing player behavior and actions within the game environment (Salen & Zimmerman, 2004). Game mechanics establish what is possible for the player, the constraints and the nature of challenges encountered by the player. In many simulation games, the mechanics imitate real-life processes.

Some of the game mechanics in *The Mamak Dreams* are those of cooking, serving customers, managing money and hygiene, and upgrading stall equipment. Cooking processes entail chopping food ingredients, frying them in the right manner, and preparing plates as dictated by the recipe. Customer-serving processes require efficiency and customer satisfaction from the players as well. The processes involved in maintaining hygiene include cleaning up tables and dealing with any pest issues. Financial processes include accounting for earnings and expenditures, as well as making the necessary investments for improving stall operations.

2.3 Gaps in Literature

Despite the availability of substantial research regarding cultural representation within games, there is little academic material concerning the integration of Malaysian culture in 3D games. The majority of academic materials have been focused either on the integration of the Western or East Asian cultures (De la Hera, 2016; Liu, 2018). Consequently, it remains unclear how Southeast Asian cultures, such as Malaysian street food culture, can be represented within the game.

In addition, there is little research regarding the role of culturally authentic 3D assets for forming players' perceptions of their national identities. Although cultural integration is capable of increasing players' immersion, it can also create problems with respect to asset design and the integration of cultural representations into game mechanics. The goal of *Mamak Dreams* is to fill this gap with an appropriate case study.

2.4 Research Questions and Hypotheses

2.4.1 Research Questions and Hypotheses

The study is guided by the following research questions and hypotheses:

RQ1: How can Malaysian cultural elements (e.g., Mamak food, traditional practices, urban-rural settings) be integrated into 3D game worlds?

H1: If Malaysian cultural elements are authentically integrated into gameplay and environment design, players will experience greater immersion and enhanced understanding of local culture.

RQ2: Can cultural representation in 3D games improve players' sense of national identity?

H2: If Malaysian cultural themes are meaningfully represented in the game, players will report stronger feelings of national pride and identity after engaging with the game.

RQ3: What challenges do developers face when designing culturally authentic 3D assets?

H3: Developers will encounter challenges such as technical limitations, time constraints, and balancing realism with gameplay, which may affect the fidelity of cultural representation.

2.5 Literature Review

2.5.1 Simulation Games and Cultural Integration

Simulation games, especially those related to business or everyday activities, serve as an excellent platform where culture can be seamlessly incorporated into game play (Smith, 2012). The examples of such simulations are the games like Cooking Mama and Overcooked that feature culinary culture in the interactive manner. In The Mamak Dreams, the Mamak stall along with its food products is used as the cultural aspect of the game that enables gamers to experience the native culinary culture.

Incorporating culture in simulation games increases the engagement level among gamers since they get an opportunity to relate to culture through game play (Brown & Thomas, 2015).

2.5.2 Importance of Food in Cultural Education

Food plays an essential role in culture and serves as a vehicle through which history, identity, and community can be conveyed (Counihan & Van Esterik, 2013). Interactive video games featuring food culture enable users to interact with the history of food. Through the process of making foods such as Mi Goreng, Roti Canai, and Teh Ais, users can get acquainted with the ingredients and the culture of cooking and eating at Mamak stalls.

This approach provides experiential learning, where players actively engage with cultural content rather than passively observing it. Such interactive exposure to traditional food practices can enhance cultural awareness, reinforce identity, and encourage appreciation for local culinary heritage (Long, 2017).

2.5.3 The Role of Interactive Media in Cultural Preservation

Interactive media such as 3D games presents itself as a dynamic platform for cultural conservation (Anderson, 2018). Unlike books and movies where one is a passive participant, in games, the player takes an active role in engaging in the cultural experience. In the game, *The Mamak Dreams*, through cooking, serving and running a stall, one gets to experience Malaysian culture by conserving not only the tangible (food, dishes, stalls), but also intangible aspects of culture such as how to interact with customers and life on the streets.

Research shows that interactive engagement increases retention of cultural knowledge and strengthens emotional connections to heritage (Liu, 2018). By simulating real-world cultural activities, games can serve as both educational tools and entertainment, creating meaningful cultural experiences that extend beyond the digital space.

2.6 Comparative Case Studies

2.6.1 Overcooked (2016)

Overview:

In Overcooked, players are put into the position of working chefs who have to perform in various kitchens. Levels consist of the need to cook and serve dishes within limited amounts of time while dealing with different obstacles such as moving kitchens or conveyor belts. In order to succeed in the game, cooperation, teamwork, and planning are necessary since players need to distribute responsibilities among themselves. The chaotic atmosphere promotes effective problem-solving and collaboration as key elements for success.

Cultural Relevance

Although this game does not represent food from a specific culture, it demonstrates the general idea behind culinary culture and practices through gameplay elements that involve preparing meals. Since in the game players are supposed to manage their workflow properly, serve food to customers in time, and work in sync with each other, there are certain aspects of food preparation represented in the game. It shows how culinary skills and activities can be turned into a fun experience in a video game.

Gameplay Mechanics

The gamers go through a sequence of instructions in performing different tasks, using kitchen gadgets, and serving the prepared meals in a limited amount of time. The activities, including cutting, frying, organizing, and serving ingredients, need to be done in a precise way and also involve cooperation among players. It features a point system that takes into account the players' speed, accuracy, and efficiency, and punishes any kind of mistake made or any order overlooked. The new kitchens present various difficulties, from obstacles to changes in kitchen arrangements.

2.6.2 Cooking Mama (2006)

Overview

In Cooking Mama, gamers need to prepare different kinds of meals by completing various mini-games, where each dish consists of several stages such as chopping, mixing, frying, boiling, and garnishing. The complexity of the tasks increases progressively, giving the player time to improve their skills in managing time, performing actions in an accurate way, and handling a couple of things simultaneously. Despite its simple appearance, Cooking Mama can become a challenging game, especially if the player has to meet certain criteria and time limits during the preparation. Due to its fun style, bright graphics, and immediate feedback after the completion of each task, Cooking Mama attracts people of different ages.

Cultural Relevance

Despite being mainly focused on the cooking of typical Japanese dishes, Cooking Mama shows how video games can be used for transmitting some aspects of culture. While preparing Japanese meals in the game, the player gains knowledge about the ingredients used to cook them, methods applied, and the peculiarities of the whole process. In such a way, the game becomes a perfect tool for conveying cultural knowledge as players are interested in this information because it helps them to prepare meals correctly.

Gameplay Mechanics

The player interacts with the game through motion controls, touch screen inputs, or clicks of the mouse depending on the platform. The movement that one makes in chopping vegetables, mixing sauces, or throwing things in the pan creates realistic movements, thereby making the game more engaging. This game rewards players who achieve precision and timing, but punishes those who fail to do so. It is important to note that each mini-game revolves around doing only one cooking chore, which promotes the development of fine motor skills among players. Moreover, the inclusion of several mini-games in preparing one dish adds a new dimension to the game.

2.6.3 Stardew Valley (2016)

Overview

Stardew Valley is a simulation game that incorporates aspects of life simulation as well as an open-ended gameplay. Players are allowed to work on their farms, interact with the people in the virtual countryside environment, grow crops, raise livestock, fish, dig mines, and engage in other related activities as they effectively allocate their time and resources. Additionally, the virtual town where the game takes place keeps on developing with time as well as seasons; a calendar feature is integrated in the game to help the player make use of opportunities presented by these seasons.

Cultural Relevance:

Moreover, the game incorporates various elements associated with cultural identity, such as farming practices and the importance of the natural environment. For instance, players learn about seasonal cycles, traditional ways of agriculture, as well as the significance of community engagement. In particular, by interacting with villagers, attending festivals, and engaging in community events, players are introduced to local social customs and traditions. Thus, the game provides an opportunity for acquiring culturally-based knowledge and developing an appreciation of rural life, its values, and traditions through the integration of realism into gameplay.

Gameplay Mechanics

In Stardew Valley, players perform a broad range of interconnected activities, which includes farming, managing livestock, crafting, and exploring areas to obtain resources. In addition to farming, resource management and time management constitute a significant aspect of gameplay. Specifically, players should effectively allocate their time to accomplish certain tasks, maintain their energy, and prepare for changing seasons. Social interaction also plays a central role, with players making friends, giving gifts, and engaging in town activities. Overall, by using a variety of mechanisms, the game manages to create a realistic simulation of rural life that fosters both practical and cultural competencies.

2.6.4 Comparative Insights

The study of Overcooked, Cooking Mama, and Stardew Valley has provided a lot of useful information on how interactive cooking and simulation games can make use of culture, society, and gameplay to produce an enjoyable experience. Even though these three titles have different approaches towards implementing these aspects, they have something in common, which can be used as a guideline when developing a simulation game with cultural elements, including The Mamak Dreams.

For example, Overcooked shows how cooperation and dynamic decision-making may be implemented in a simulation. Players are motivated to work together due to chaotic kitchens and time-limited orders. Procedural elements, such as platform navigation, may help make the process more engaging but at the same time make players simulate culinary situations realistically. While Overcooked is not an example of representation of a certain culture, it can show how the process of food preparation may be presented as a procedure involving skills and interactivity. This can be taken into account when designing The Mamak Dreams.

Cooking Mama, on the other hand, takes an entirely different approach to cultural education, emphasizing solo playthroughs that require precise timing and completion of cooking-related tasks. Cooking Mama is all about the interaction with the game and the feeling of realism as players have to prepare various meals using a variety of ingredients. This example of a simulation game proves that culture can be taught through food by using a fun approach of teaching players how to cook traditional Japanese dishes. The example of Cooking Mama proves that the breakdown of complex actions into interactive tasks may provide educational experience for players.

Stardew Valley is more about farm-life simulation than the practice of cultural knowledge, but it still incorporates elements of culture and environment through depicting a real-world community, seasonal changes, and the process of engaging in various activities. In Stardew Valley, players have to learn how to manage resources, plan their actions for several seasons ahead, and maintain relationships with people. It turns out that a game, especially a simulation one, can teach more than just performing certain actions; it can immerse players into a particular culture and teach them various aspects of the culture at once.

Upon considering these games, there are several major things to be noted. First of all, Overcooked and Cooking Mama offer examples of two contrasting ways of making a fun gaming experience while simulating cooking. While one relies upon the cooperation between players, chaos of events, and multitasking, the other game is more about precision, learning process, and repetitive practice. Yet, both examples prove the viability of such simulation games. Secondly, Stardew Valley takes the simulation genre to a whole new level by adding realism, social and environmental components, thus highlighting the significance of situating the gameplay into a realistic environment. Finally, each of the games shows how an engaging and interactive experience combined with proper mechanics enables the player to acquire certain skills and knowledge.

For The Mamak Dreams game, the lessons learned from analyzing these three games will be useful in developing the implementation of Malaysian culture into a 3D simulation environment. Through blending the concepts of cooperation and objective-based gameplay seen in Overcooked with the accurate gameplay seen in Cooking Mama and the environmental and social reality in Stardew Valley, The Mamak Dreams will have the potential to provide players with an enjoyable, realistic simulation experience that will also serve as an educational one. In the process, players get to deal with challenges related to operating a Mamak stall while making and serving food, interacting with customers, and coping with real urban surroundings.

Game	Overview	Cultural Integration	Gameplay Mechanics	Lessons for <i>The Mamak Dreams</i>
Overcooked (2016)	Cooperative cooking simulator with time-based challenges	Limited cultural focus; generic dishes	Recipe-based cooking and serving mechanics	Demonstrates interactive food preparation and teamwork mechanics
Cooking Mama (2006)	Single-player cooking mini-games	Japanese cuisine-focused	Mini-games simulating realistic cooking actions	Highlights teaching cultural dishes through interactive mechanics
Stardew Valley (2016)	Farming and life simulation	Rural community and seasonal traditions	Time management, resource allocation, NPC interaction	Shows integration of lifestyle and cultural elements in gameplay

Table 2.6.1.1: Comparative Insights

3.0 System Specification & Research Methodology

Part A: Technical Specifications

3.1 Functional Requirements

This part will discuss the key functional systems which have formed the base for the development of Mamak Dreams, a game which uses 3D simulation technology to recreate the highly engaging and culturally vibrant setting of a Malaysian mamak restaurant. While the designing of these systems was largely guided by gameplay aspects, it also took into consideration many of the elements that make up real mamak culture.

Through the use of various cooking interactions, time-based challenges, and multiple layers of management systems, this game allows players to both enjoy themselves and gain insights into the stresses and dynamics of mamak food establishments.

3.1.1 Player Input and Control System

The player input system is designed to support fluid interaction within a fast-paced, multitasking environment. The control scheme prioritizes accessibility while enabling precise manipulation of objects and systems within the game world.

Gameplay Controls:

- **W, A, S, D** – Character movement within the playable space
- **Left Click** – Context-sensitive interaction, including picking up, placing, and manipulating objects, as well as engaging with interactive stations (e.g., stove, preparation surfaces, customers)
- **E Key** – Activation of “Focus Mode,” a contextual interaction state that allows the player to engage in detailed tasks such as cooking, ingredient management, and system-specific interactions
- **Esc Key** – Access to pause menu and system settings

Action	Input Key	Mode
Character Movement	W, A, S, D	Gameplay
Object Interaction	Left Click	Gameplay
Focus Mode Toggle	E	Gameplay
Pause Menu	Esc	Gameplay

Table 3.1.1: Player Control Mapping

The introduction of “Focus Mode” is particularly significant, as it reflects a shift from macro-level movement to micro-level task execution. This design choice enables the simulation of attentional shifts commonly experienced in real-world food preparation environments, thereby reinforcing both immersion and mechanical depth.

3.1.2 Scoring and Feedback System

The scoring system in *Mamak Dreams* is framed through an economic lens, where player performance is evaluated based on financial outcomes, efficiency, and task accuracy. This approach aligns with the simulation objective of replicating the operational realities of running a food establishment.

Reward Structures:

- Successful order completion generates income
- Service quality influences additional tips
- Efficient task execution contributes to higher overall earnings

Penalty Mechanisms:

- Incorrect orders result in reduced income and negative customer reactions
- Neglect of environmental factors (e.g., hygiene issues) leads to financial deductions
- Failure to respond to situational events (e.g., police presence) disrupts gameplay flow and impacts performance

Feedback Systems:

- Immediate visual feedback through character and customer animations
- End-of-day financial summaries
- Weekly cost deductions (rent, utilities, operational expenses)

Unlike traditional point-based systems, this economically driven model introduces a layer of realism and strategic decision-making. Players are required to balance speed, accuracy, and resource management, thereby reinforcing the simulation-oriented design philosophy.

3.1.3 Core Gameplay Mechanics

The gameplay in Mamak Dreams involves interdependent systems, all of which are part of the simulation of running a mamak stall. They are independent in their functioning, yet work together in certain ways to create emergent gameplay, which involves the element of unpredictability of the real world.

Cooking System

The cooking system represents the central mechanism of the game. Multi-step procedures, such as gathering ingredients, cutting them, frying and putting dishes together, are required. Changes in colours and forms are used for visual cues regarding the cooking process. Procedural interactions, which involve precise timing, define the system.

Customer System

Each customer serves as a dynamic element, providing orders with the help of visual cues. Complexity increases in terms of customer interactions, as customers give several orders simultaneously at later stages. Exaggerated negative feedback in the form of humor is employed in order to make the game more engaging without being too serious.

Time System

The time system serves as a systematic constraint in the game, where each level operates within a particular operational period. The availability of the time bar makes it imperative for players to prioritize their tasks effectively and complete them within the limited available time. In totality, the three systems combine to create a gameplay loop that requires multitasking and prioritizing.

3.1.4 Game Flow Architecture

The overall game flow of *Mamak Dreams* is designed to mirror the cyclical nature of daily business operations within a mamak setting.

1. **Main Menu** → Access to gameplay, settings, and tutorial
2. **Tutorial Phase (Level 1)** → Introduction to core mechanics in a low-pressure environment
3. **Gameplay Phase** → Execution of cooking, serving, and management tasks under time constraints
4. **End-of-Day Summary** → Presentation of earnings and performance metrics
5. **Weekly Financial Summary (Saturday)** → Deduction of operational costs (e.g., rent, utilities)
6. **Progression Decision** → Continue current progression or advance to the next stage

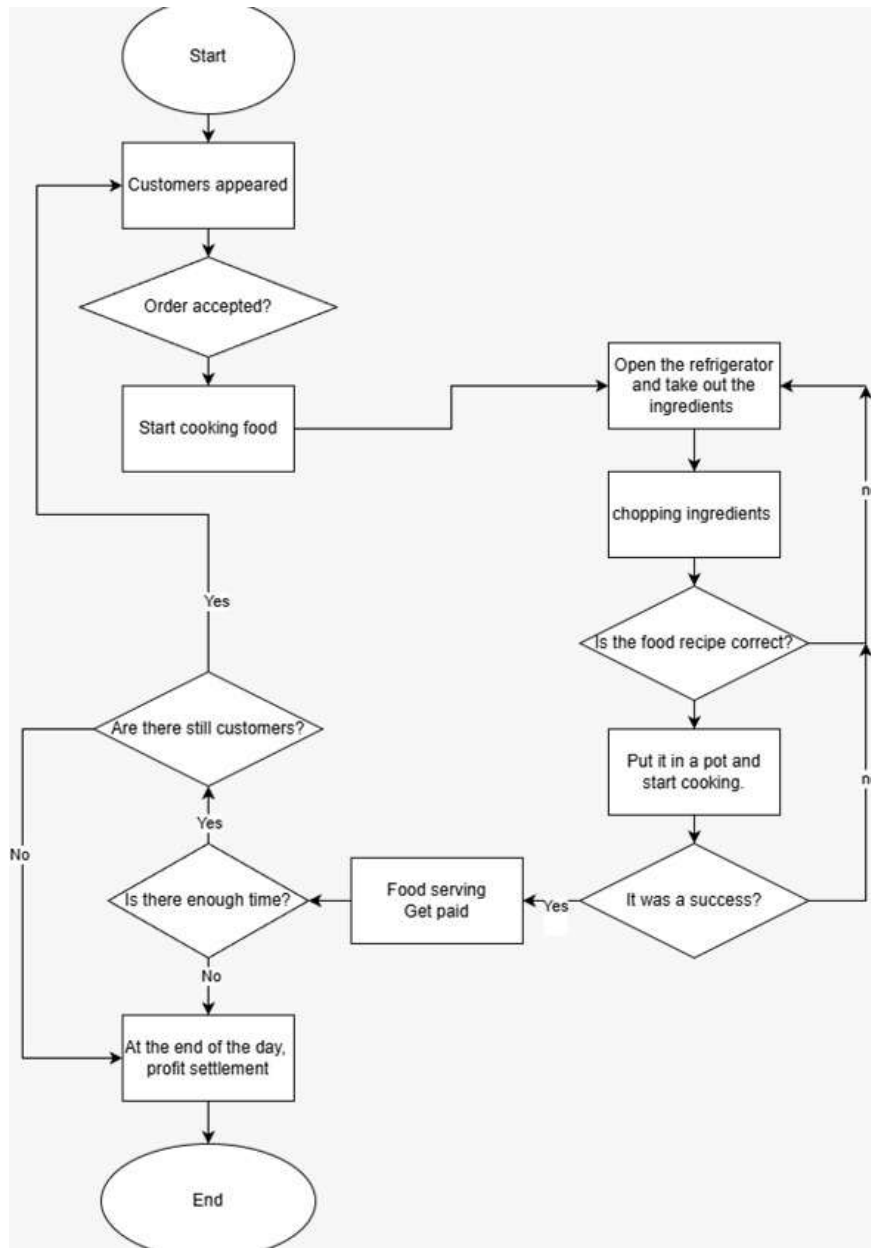


Figure 3.1.4.1 Game Flow Diagram

This cyclical structure reinforces long-term engagement by combining short-term task execution with long-term progression and resource management. It also reflects the repetitive yet evolving nature of real-world food service operations.

3.2 Non-Functional Requirements

3.2.1 System Requirements

Specification	Minimum	Recommended
OS	Windows 10 (64-bit)	Windows 10/11 (64-bit)
CPU	Intel i3	Intel i5 / Ryzen 5
RAM	4 GB	8 GB
GPU	Integrated Graphics	GTX 1050 or higher
Storage	500 MB	1 GB SSD

Table 3.2.1: Minimum vs Recommended Specifications

3.2.2 Development Tools and Version Control

Category	Tools / Platforms
Game Engine	Unity 2D
Art & Assets	Adobe Photoshop
Version Control	GitHub
Communication	Discord

Table 3.2.2: Development Toolchain

The selected toolchain reflects industry-standard practices, ensuring both development efficiency and scalability. The use of version control further supports collaborative workflows and iterative development.

Part B: Research Methodology

In this study, the **practice-based research** paradigm is utilized, which uses the design of Mamak Dreams as both the artefact and the medium of research. This paradigm is best suited for conducting research in game design since it allows examining how interactive processes can be used to convey a cultural experience.

The study primarily involves qualitative data based on reflexive practices, iterative designs, and experience analyses. Structured feedback from players will be used to provide validity to results and create an additional layer of triangulation of results by analyzing feedback from both developers and players.

3.3 Research Design

In this case, the research design entails a practice-led process where the development of the game is directly associated with the research aims. In this regard, the study intends to assess the manner in which the simulated operations will help in the effective portrayal of the mamak culture in Malaysia.

In this research, although an emphasis is placed on qualitative data, some aspects of quantitative data collection will be used through survey questions.

3.4 Data Collection Methods

3.4.1 Development Observation

Observation of development is used as a form of primary data gathering, which provides valuable information from the insights obtained during the design iterations. During development, special emphasis is placed on important aspects of system balancing, which includes such issues as the speed of cooking and the flow of customers, as they impact the pace of gameplay. At the same time, the analysis of player workload and mental demand on the part of players helps to achieve a good balance between complexity of multitasking and the degree of its challenge, as an excessive number of tasks can create unnecessary problems for players while being too simplistic at the same time.

Finally, observation is needed to assess the implementation of culture into the gameplay systems. With the help of this method, it is possible to critically analyze the impact of design decisions on the quality of gameplay and the effectiveness of theme representation.

3.4.2 Player Questionnaire

A structured questionnaire is used to ensure systematic gathering of user feedback after the playtests are completed. The questionnaire will cover all possible responses from the users, and it is split into three parts – demographics, gameplay experience evaluation, and cultural engagement and perceptions. In the case of the former one, the user's background information, including age, gender, and prior experience with games, will be gathered, thus providing contextual support for any other information that could be acquired from the questionnaires. As for the gameplay experience evaluation part of the survey, its focus will be on controls, game mechanic understanding, difficulty, and overall player enjoyment of the experience. The cultural engagement and perceptions section of the survey will be aimed at determining how well the game conveys the mamak theme, and how culturally engaged users feel when playing the game.

The questionnaire features a mixture of Likert-scale answers and open-ended questions, providing an opportunity to analyze both types of responses. On one hand, the Likert-scale will help to identify common trends and patterns among users' reactions, while on the other hand, open-ended questions will offer valuable insights about each user's opinion, experience, and potential suggestions.

3.5 Participants / Sampling

Target Population

This study will involve the use of university students and young adults within the age bracket of 18-35 years old. The reason for choosing this demographic for the research involves the ease by which members of this demographic are able to understand digital games and provide constructive and informed feedback regarding its various elements. Members of this age bracket tend to be more involved in digital games and would be able to give feedback regarding the various elements of the game including mechanics and usability. Thus, the information provided by members of this demographic can help gauge the performance and the level of engagement that players have with the game.

Sampling Method

Convenience sampling and purposive sampling techniques will be used in conducting this study. First, the use of convenience sampling helps ensure that individuals from the target demographic are easily accessible and will allow for the efficient gathering of responses needed for the study. On the other hand, purposive sampling helps ensure that the respondents are knowledgeable when it comes to digital games.

Sample Size

For this particular study, the expected sample size includes around 10 to 15 participants. This particular number of participants is deemed appropriate because of the fact that the research methodology involved in this case would be more practical and practice-based, where qualitative insights should be derived rather than statistical generalizations. Thus, this will ensure that every participant's response may be analyzed and interpreted accordingly.

Duration

The duration of time required for each participant involves going through a short playtest period coupled with a questionnaire. In this context, the playtest period should be relatively short while still providing enough exposure to the game mechanics. Moreover, the questionnaire will serve to gather their responses about the game in a timely manner, thus allowing for better analysis of the results.

3.6 Data Analysis

Quantitative Analysis

The quantitative data extracted from the Likert scale survey responses will be analyzed through the use of descriptive statistical techniques, which include mean values and percentages. This helps in providing a numerical summary of the perceptions held by the players on issues that include usability, interaction, and overall satisfaction. It will be easier for the researcher to identify the trends existing in the responses collected since they will be quantified through mean values. The number of people used as respondents is quite small; however, the use of descriptive statistics still provides useful information regarding the experience of players.

Qualitative Analysis

Analysis of qualitative data occurs via thematic analysis, where recurring thoughts, patterns, and insights are detected and clustered according to their meaning into categories. The process involves an examination of open-ended answers given by the respondents along with the reflections made by the developer herself during the design and testing processes. Frequent themes such as gameplay difficulty, mechanics clarity, and cultural immersion are revealed in order to organize them in categories for easier analysis. Such a procedure makes it possible to uncover players' experiences beyond numbers, revealing their opinions, suggestions, and emotions about the game that cannot be expressed quantitatively.

The use of both approaches contributes to a more thorough assessment of the game's efficiency. Through the inclusion of quantitative and qualitative data into analysis, its conclusions will be more consistent and reflective of both trends and subjective points of view on the game in question.

3.7 Data Collection Result

The gathered data gives an extensive insight into how Mamak Dreams has been perceived by the players, in terms of usability, engagement, and culture. With the help of the data analysis on both quantitative and qualitative data, we can form a rather comprehensive picture of player interaction with the game and their view of Mamak Dreams' gameplay system and cultural elements incorporated into the game. In particular, some key insights can be drawn from such areas as the user-friendly nature of the game mechanics, player engagement, and ability of the game to convey its culture.

Overall, the presence of gameplay systems that are based on cultural context appears to have a positive effect on player engagement. The use of such familiar for the player cultural concepts like preparing food, working with customers, and creating realistic environment makes the game more relatable and enjoyable for the player. As a result, incorporating culture within the game's interactive processes helps in improving its gameplay.

3.7.1 Age Group Distribution

1. What is your age?

47 responses

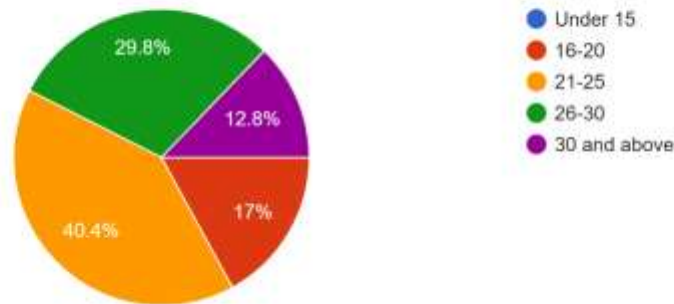


Figure 3.7.1.1 Age Group Distribution

The age distribution pattern of respondents reveals that 40.4% are in the age bracket of 21-25, which means that it is the highest frequency age bracket among the respondents. The next highest frequency age bracket is that of 26-30 years, and it represents 29.8% of respondents. Those aged 16-20 represent 17% of respondents, which means that they form a fairly high but not the highest proportion of the respondents. Finally, the age bracket of 30 years and above forms 12.8% of the respondents and is the lowest frequency group. From the above, it can be deduced that the majority of respondents were young adults in the age bracket of 21-30 years. Therefore, the study reflects the views of respondents who are highly active in gaming and thus provide useful information on gameplay systems.

3.7.2 Gender Distribution

2. What is your gender?

47 responses

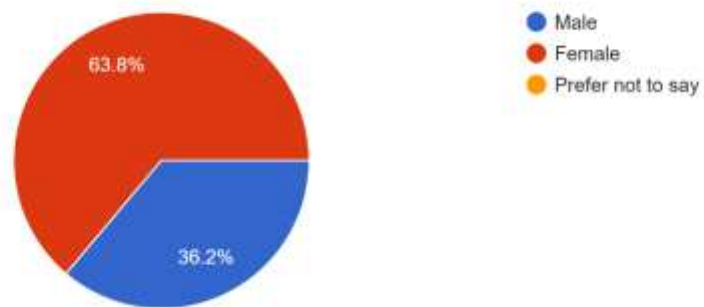


Figure 3.7.2.1 Gender Distribution

The breakdown of gender in relation to the gender of the participants reveals that 63.8% of the total respondents are females, whereas 36.2% are males. From this, it is clear that the female gender dominates the sample group, with a much higher percentage than the male gender. This means that the study involves a relatively greater representation of the female gender. Even though there is an imbalance in the number of the two genders, they both have been captured in the sample.

3.7.3 Ethnicity Distribution

4. What is your ethnicity?
47 responses

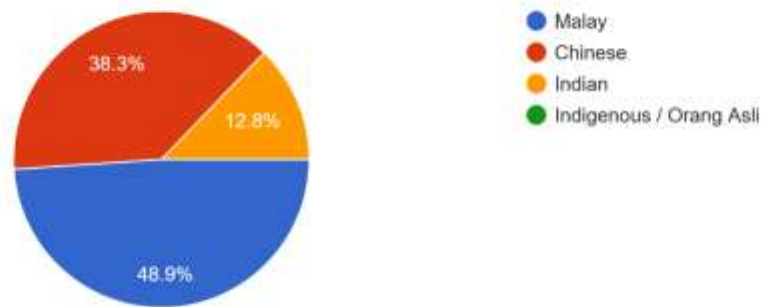


Figure 3.7.3.1 Ethnicity Distribution

The ethnic makeup of the participants reveals that 48.9% of the participants are Malay, thereby making up the largest percentage of the entire research. Chinese participants, constituting 38.3% of all participants, make up the second largest percentage. Finally, Indian participants account for the third largest percentage in the ethnographic study with 12.8%. Thus, the above-mentioned ethnography indicates the use of a wide range of samples comprising all three ethnic groups in Malaysia. Consequently, since Malays constitute the largest percentage of the sample, it could be assumed that their opinions will have a significant bearing on the results of the study.

3.7.4 Gaming Frequency

5. How often do you play video games?
47 responses

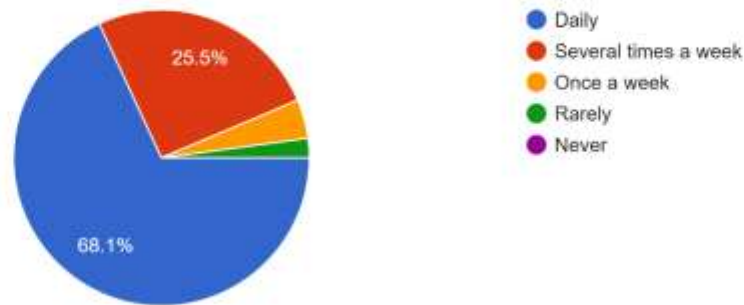


Figure 3.7.4.1 Gaming Frequency

As per the analysis of gaming frequency, it can be concluded that the largest group in the survey, constituting 68.1% of the participants, is those that play games every day. The second highest percentage is 25.5% that plays several times a week. There is another group consisting of 4.3% of the participants that plays only once a week. It is observed that there are also very few participants, comprising 2.1%, who rarely engage themselves in the game-playing activity. Therefore, it can be concluded that most participants are highly engaged gamers, as they mostly play games every day or several times a week. It is expected that such gamers are more experienced, and hence, their feedback on game design would be highly useful.

3.7.5 Gameplay Experience

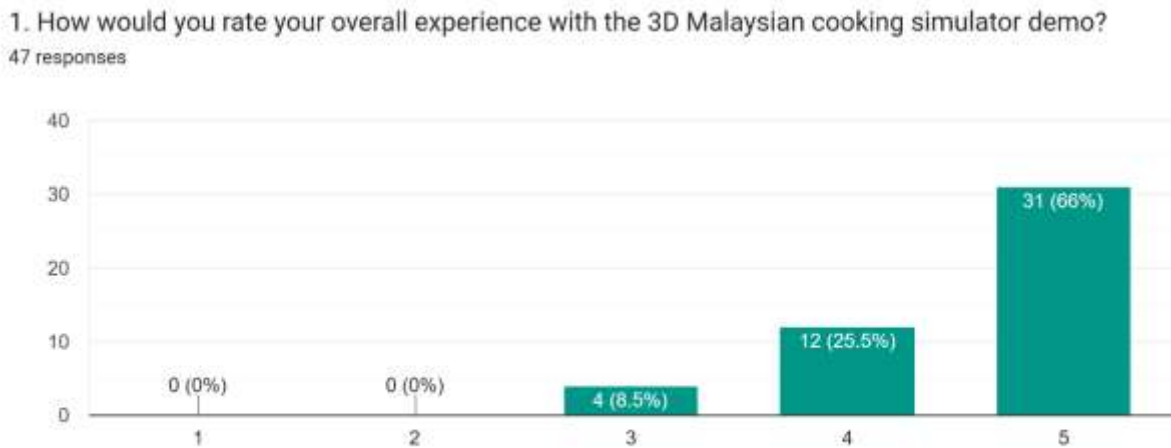


Figure 3.7.5.1 Gameplay Experience

The findings for the gameplay experience, recorded on a scale of 1 to 5, demonstrate that a high level of satisfaction with gameplay was experienced among the participants. 66% of the respondents gave the level 5 score, which means that there were many respondents who showed a very high level of satisfaction with their experience during the gameplay session. 25.5% of the respondents provided the level 4 rating, showing strong levels of satisfaction. On the other hand, only 8.5% of the respondents provided a rating of level 3, which suggests average levels of satisfaction. Overall, it can be seen that the participants' gameplay experience was rather positive, as the high number of respondents demonstrated extremely high levels of satisfaction with their experience during the game.

3.7.6 Engagement of the Gameplay Mechanics

2. How engaging did you find the gameplay mechanics?

47 responses

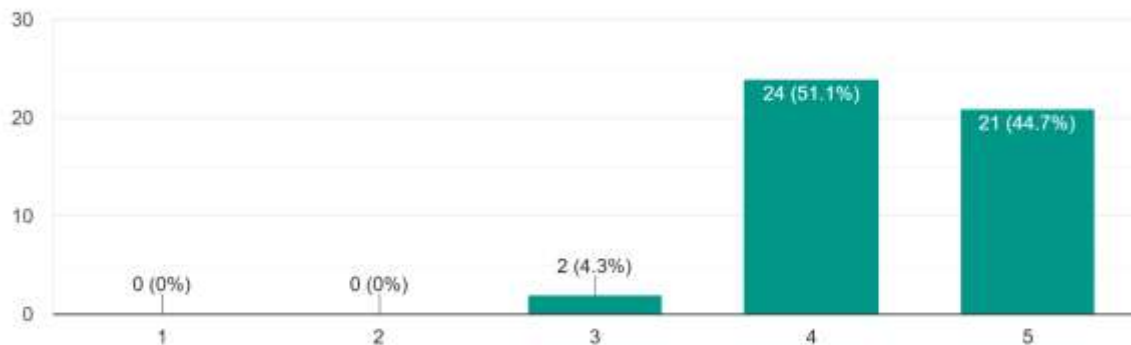


Figure 3.7.6.1 Engagement of the Gameplay Mechanics

Results on the engagement of the gameplay mechanics, on the scale from 1 to 5, reveal a relatively positive reaction of respondents. Most respondents, comprising 51.1%, chose rating 4 to evaluate the level of engagement of the gameplay mechanics, which means that the players found the game mechanics engaging and entertaining. This was closely followed by 44.7% of respondents evaluating the level of engagement of gameplay mechanics at level 5, showing the presence of an extremely high level of engagement with the gameplay systems. Only a few respondents, accounting for 4.3% of all survey participants, chose level 3 to rate their engagement with the game mechanics. The results obtained show that the gameplay mechanics are efficient in retaining players' interest in the game. The overwhelming number of ratings equal to levels 4 and 5 demonstrates that the vast majority of respondents positively reacted to the game's mechanics.

3.7.7 Realism of Cooking Activities

3. How realistic did the cooking activities feel in the game?

47 responses

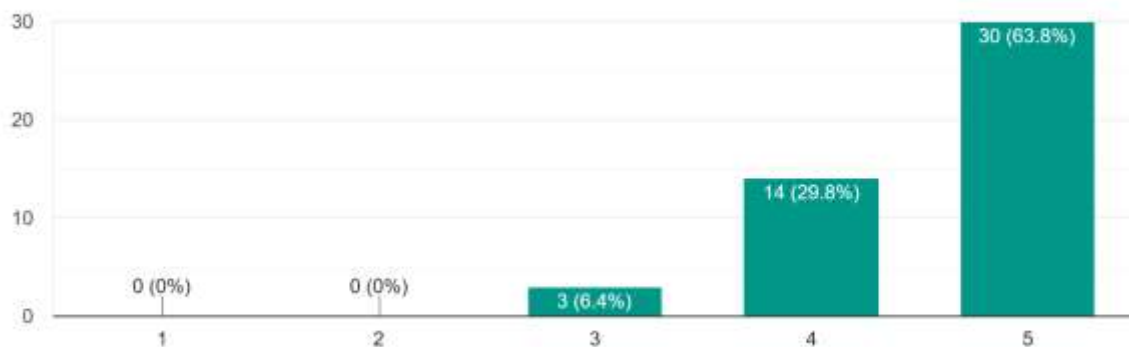


Figure 3.7.7.1 Realism of Cooking Activities

The findings concerning the degree of realism of the cooking activities presented on the scale from 1 to 5 demonstrate a highly positive reaction to this aspect on behalf of the participants. In particular, the majority of them, 63.8% of all participants, scored the degree of realism at 5. It can be concluded that the participants found the cooking process realistic enough in the game. 29.8% of the respondents gave the second highest score of 4 out of 5 possible for the realism. In other words, a large part of the participants also considered the cooking experience provided by the game quite convincing and realistic. A lower share of people, 6.4% of all the respondents, gave the third highest mark of 3 out of 5 for the realism in the cooking process. Importantly, none of the respondents gave low scores of 1 or 2 for the realism. This means that there were no negative assessments made of the realism factor concerning the cooking in the game.

3.7.8 Visual Appeal of the Game

4. Did you find the game visuals appealing?

47 responses

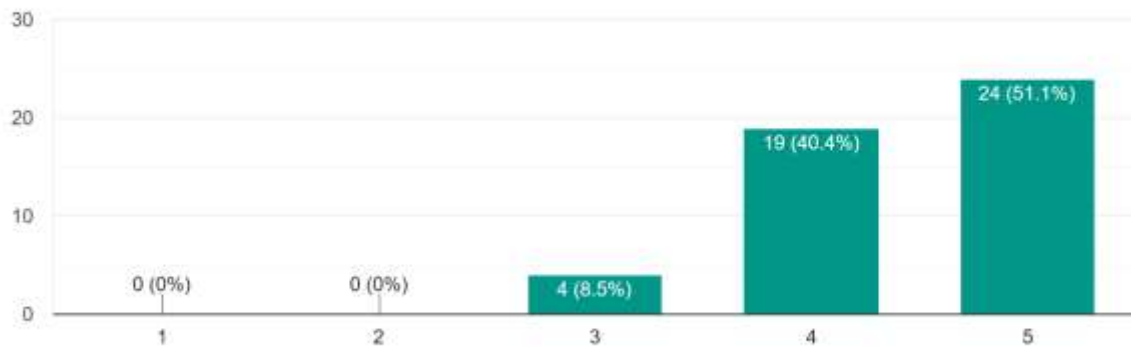


Figure 3.7.8.1: Visual Appeal of the Game

Findings concerning the attractiveness of the game visuals, measured on a scale ranging from 1 to 5, reflect very favorable responses on behalf of participants. 51.1% of participants rated the visual element at level 5, meaning that more than half of all players viewed the game as having very good aesthetics. This is followed by 40.4% of participants giving the visual element rating of 4, indicating another significant proportion of players viewing the visuals as highly attractive. In addition, 8.5% of participants rated the visual design element at level 3, indicating their neutral attitude toward the visuals. No participants gave a rating below 3, meaning that no participants considered the visuals in the game as being of poor quality. This indicates that the visual element of the game design was successful and effectively attracted players' attention. The high concentration of ratings at levels 4 and 5 shows that visuals played a significant role in enhancing the user experience of players.

3.7.9 Ease of Understanding and Playing the Game

5. Was the game easy to understand and play?

47 responses

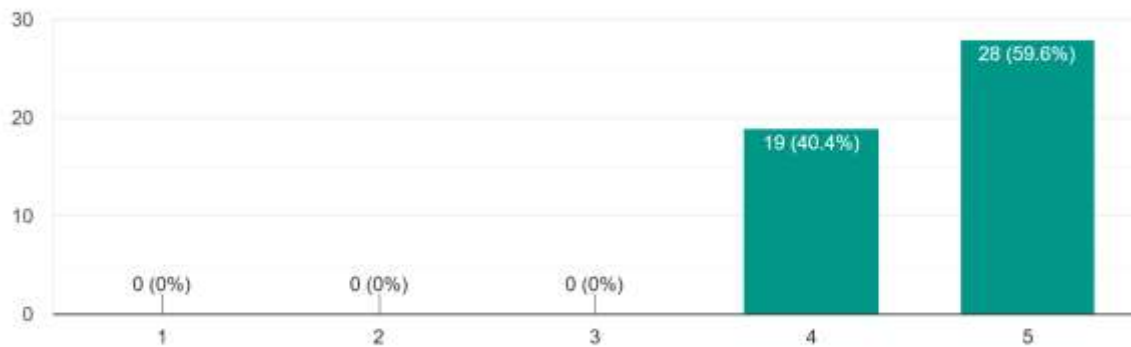


Figure 3.7.9.1: Ease of Understanding and Playing the Game

In respect of the ease of understanding and playing the game, assessed based on a 1 to 5 rating scale, the findings are very favorable towards the perceptions held by respondents. As many as 59.6% of the respondents chose the highest level of 5 when rating their perception of the ease of understanding and playing the game. Thus, most players perceived the game to be very easy to understand and play. The other 40.4% of the participants, however, were slightly less optimistic but still gave their feedback a level rating of 4, meaning that none of the respondents perceived the game to be difficult to understand or play. None of the respondents assigned any levels from 1 to 3, signifying that all respondents thought the game was relatively easy.

3.7.10 Representation of Malaysian Cultural Diversity

4. How well does the game showcase Malaysian cultural diversity?

47 responses

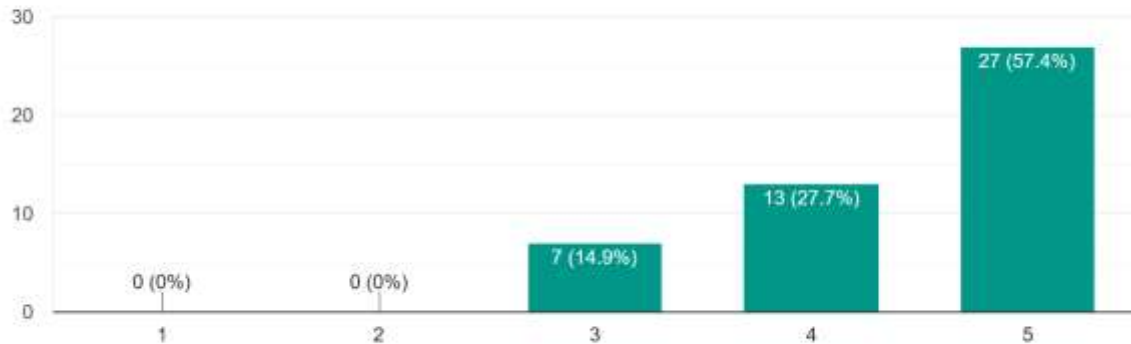


Figure 3.7.10.1 Representation of Malaysian Cultural Diversity

Regarding the game representation of the Malaysian cultural diversity, which was rated on the scale from 1 to 5, it should be noted that the answers provided by the participants can be considered satisfactory. More than half of the respondents, specifically 57.4% of participants gave rating number 5 to this aspect. It means that over half of the participants consider that the game was able to represent Malaysian cultural diversity effectively enough. Another important factor worth mentioning is that 27.7% of respondents rated the game at point number 4. In other words, a considerable amount of the participants also thought that the representation of culture in the game was quite successful. In addition, 14.9% gave rating number 3. Finally, no respondent rated the game as 1 or 2, respectively. The data above indicates that the game is able to include those factors that are relevant to the culture of Malaysia. Moreover, the presence of a high proportion of responses related to level numbers 4 and 5 means that the integration of cultural components such as food, environmental factors, and communication contributed to their immersion into the game process.

3.8 Summary

In conclusion, this chapter has provided a full account on the technical specifications and research methodology used in Mamak Dreams. As mentioned before, the technical specifications involved the identification of fundamental systems of the game, including player control system, scoring system, time management, cooking and customer interactions. These systems played a huge role in the development of Mamak Dreams as they helped simulate a real mamak experience but at the same time make the game exciting for players to play.

Furthermore, the non-functional requirements of the game served as the technical groundwork of Mamak Dreams and included the use of software development kits and other tools in developing the game. The use of standardized software and tools will ensure the feasibility and scalability of the game throughout the development process.

From a research perspective, this study is practice-based as the game itself and the process of its creation are considered the research artefacts and the focus of the study. A mixed-methods approach to research helped collect data from developers and participants in the form of development observation and player questionnaire.

Results from the data analysis showed that the game received generally positive feedback regarding various aspects such as gaming experience, playability, usability, and graphic design. The players enjoyed how real the cooking process felt like and how the gameplay unfolded, which is indicative of successful implementation of the systems and their effectiveness in delivering a positive experience. Moreover, the use of culturally based components, especially Malaysian mamak culture, allowed increasing immersion and relatability on behalf of the players.

Thus, the results of this chapter show that Mamak Dreams manages to successfully combine simulation and cultural representation in the process of game playing. This allows making a conclusion about the effectiveness of implementing the ideas behind Mamak Dreams. In turn, technical achievements and user feedback can be used to optimize the game.

4.0 Design & Implementation

4.1 Art Direction

Results from the data analysis showed that the game received generally positive feedback regarding various aspects such as gaming experience, playability, usability, and graphic design. The players enjoyed how real the cooking process felt like and how the gameplay unfolded, which is indicative of successful implementation of the systems and their effectiveness in delivering a positive experience. Moreover, the use of culturally based components, especially Malaysian mamak culture, allowed increasing immersion and relatability on behalf of the players.

Thus, the results of this chapter show that Mamak Dreams manages to successfully combine simulation and cultural representation in the process of game playing. This allows making a conclusion about the effectiveness of implementing the ideas behind Mamak Dreams. In turn, technical achievements and user feedback can be used to optimize the game.

For the colour design, the dominant scheme uses shades of yellow and brown. This is because yellow and brown generally represent warmth, coziness, and familiarity. These elements align well with the comfortable ambiance that is expected from mamak culture in Malaysia. To avoid repetition in the colour schemes, other accent colors like blue, red, white, and black will be used to bring variety to the visual aspects.

There are several video games that could serve as inspiration for visual styles. For example, there are games named Ramen Shop Simulator and Thief Simulator 2. It is interesting to note how games managed to combine stylized art direction while making their visuals realistic at the same time with the help of environmental details and textures.

Character Design



Figure 4.1.1 3D Rat with Texture

One of the important characters used in the game is the rat, and its design is based on realistic life examples. It consists of the body color of grey-black, tail colored in pinkish shades, and slight pinkness on the areas near the eyes. Also, it has black-colored eyes with highlights to improve the vision and appearance.

Technically speaking, one should say that the rat is designed according to the principles of the low-poly style. For these reasons, it is impossible to include detailed limb joints for the same purpose as it will negatively affect the animation. In case some limbs were added to the character, it would become difficult to perform smooth motions, which could be seen by the players due to visible polygons.

The focus in the animation is made on simpler movements of the body parts, namely tail swaying during different stages.

Environment Design

The environment design in *Mamak Dreams* represents different stages of progression, each reflecting a specific setting within Malaysian culture.



Figure 4.1.2 Kitchen with Texture in Tutorial Level

The kampung house environment features a kitchen built using red bricks and wood, which are commonly found in traditional Malaysian village homes. Decorative elements such as hanging cloths are included to enhance authenticity and create a lived-in atmosphere.



Figure 4.1.3 Wooden Stall with Texture in Level 1

The kampung outdoor environment emphasizes greenery and wooden materials, reflecting the natural surroundings and lifestyle of rural areas. The use of green and brown tones reinforces the connection to nature and simplicity.

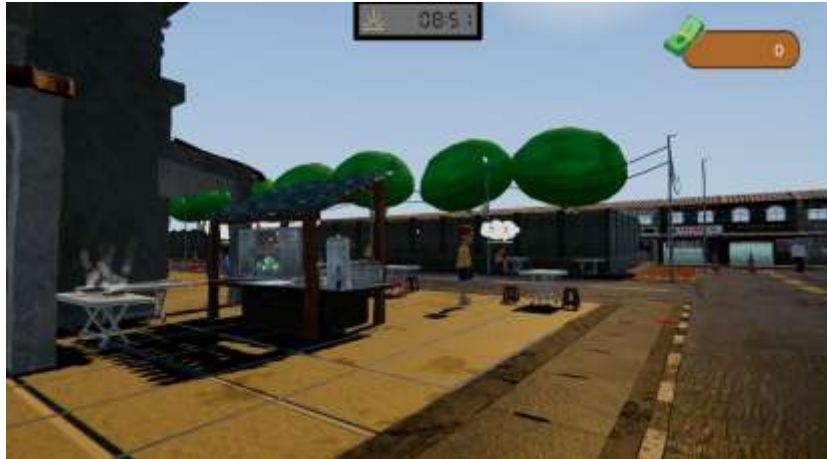


Figure 4.1.4 Urban Stall with Texture in Level 2

The urban stall environment introduces a more developed and fast-paced setting. The colour palette shifts towards grey and darker tones, representing the pressure and intensity of city life. This visual transition reflects the increasing difficulty of gameplay.



Figure 4.1.5 Restaurant with Texture in Level 3

The restaurant environment represents the player's progression into a more stable and successful stage. The use of warm colours such as yellow and orange creates a sense of comfort, stability, and achievement. At this stage, the player no longer needs to deal with challenges such as police evasion or financial struggle, reflecting a more secure lifestyle.

Prop Design



Figure 4.1.6 Props in Restaurant with Texture in Level 3

The props used in Mamak Dreams have been created to serve not only functional gameplay but also environmental storytelling purposes. Such props will include the kitchen prop like cabinets, cutting board, knife, iron plate, spatula, skimmer, pot, water heater, and icebox.

Other props used in this game will include chairs, tables, refrigerator, rubbish bin, and cashier, all of which depend on the level of the game. The props for Kampung, for instance, will be created from wood, reflecting the rustic look. However, props used for restaurant will reflect sophistication due to growth. All these props have been designed to be easily identifiable and interactive by the gamers.

Colour Choices

The usage of color is one of the most crucial design aspects for conveying the emotions as well as the progress in the game. The colors that are chosen as main colors include yellow and brown, which signify warmth, relaxation, and familiarity and therefore represent the Malaysian mamak theme.

On the contrary, the urban level uses darker colors including grey and black, to represent the feeling of pressure and intensity. These changes in the use of color demonstrate how difficult and stressful it is for the player to go through the levels of the game.

4.2 Prop Asset Pipeline

4.2.1 Concept to Prototype

The process of asset creation starts off with concept drawings drawn using an iPad and Adobe Photoshop. The drawing will include both design aspect and the actual functioning of the asset. Specifically, how the 3D prop works inside the game world. It is essential that the layout is planned and designed in such a way that there is effective positioning of the object and proper functioning inside the game.

Other than 3D assets, various designs are drawn for the 2D interface including different layouts and colors. Various design concepts have been tried out before arriving at the best one.

4.2.2 Texture Application Techniques

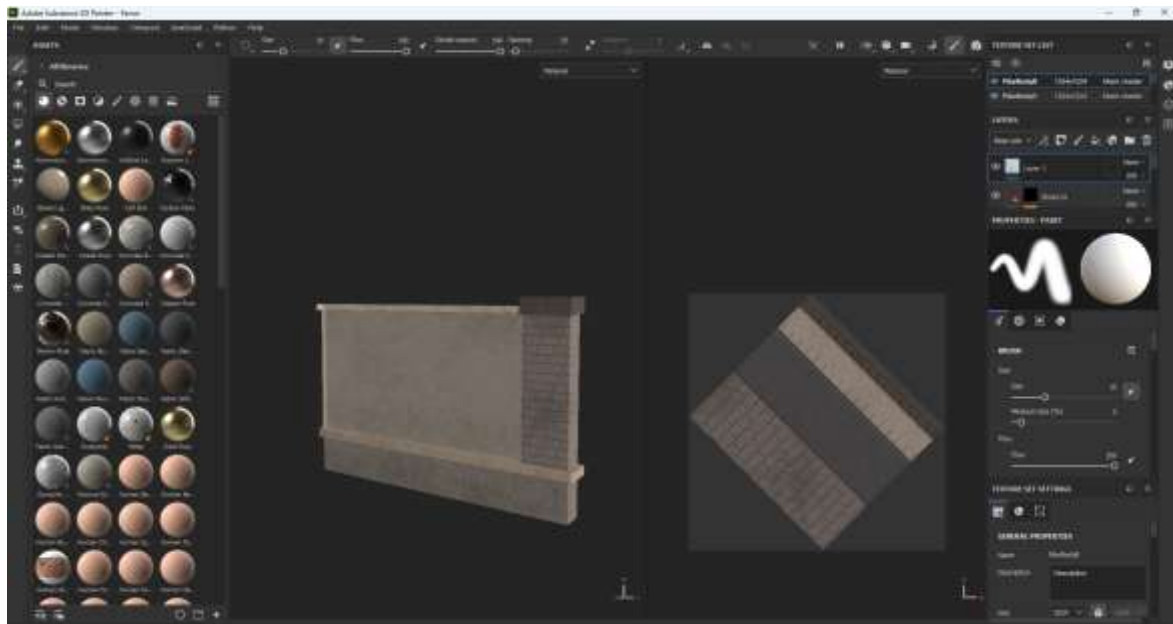


Figure 4.2.2.1 3D Wall with Texture in Substance Painter

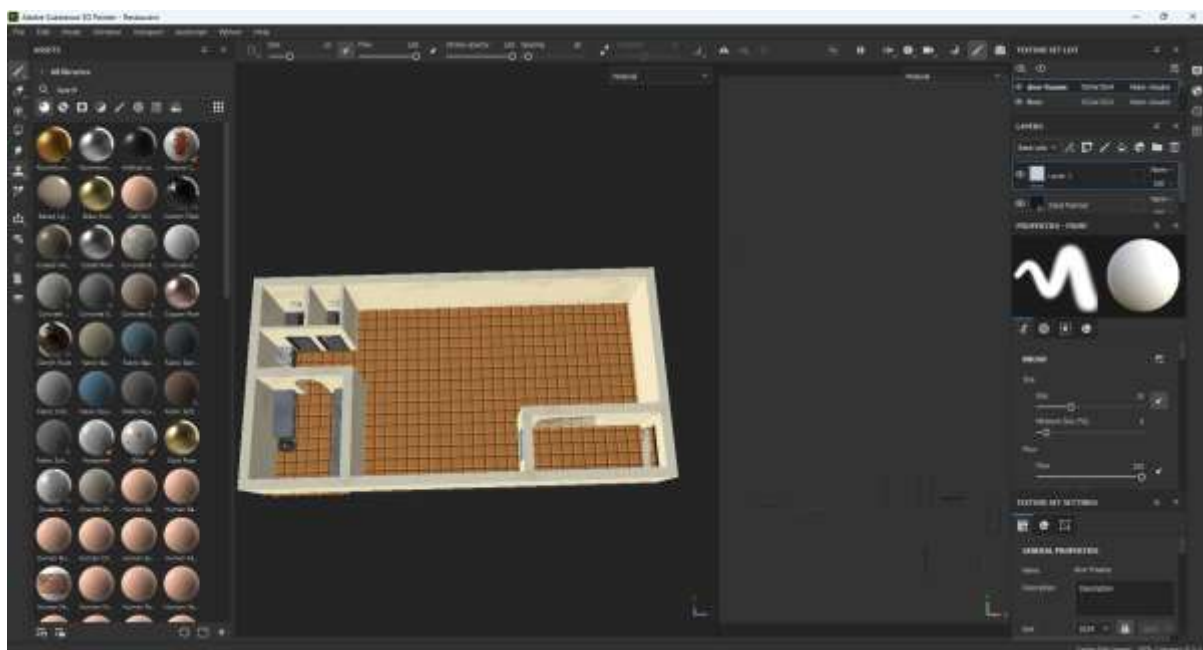


Figure 4.2.2.2 3D Indoor Restaurant with Texture in Substance Painter

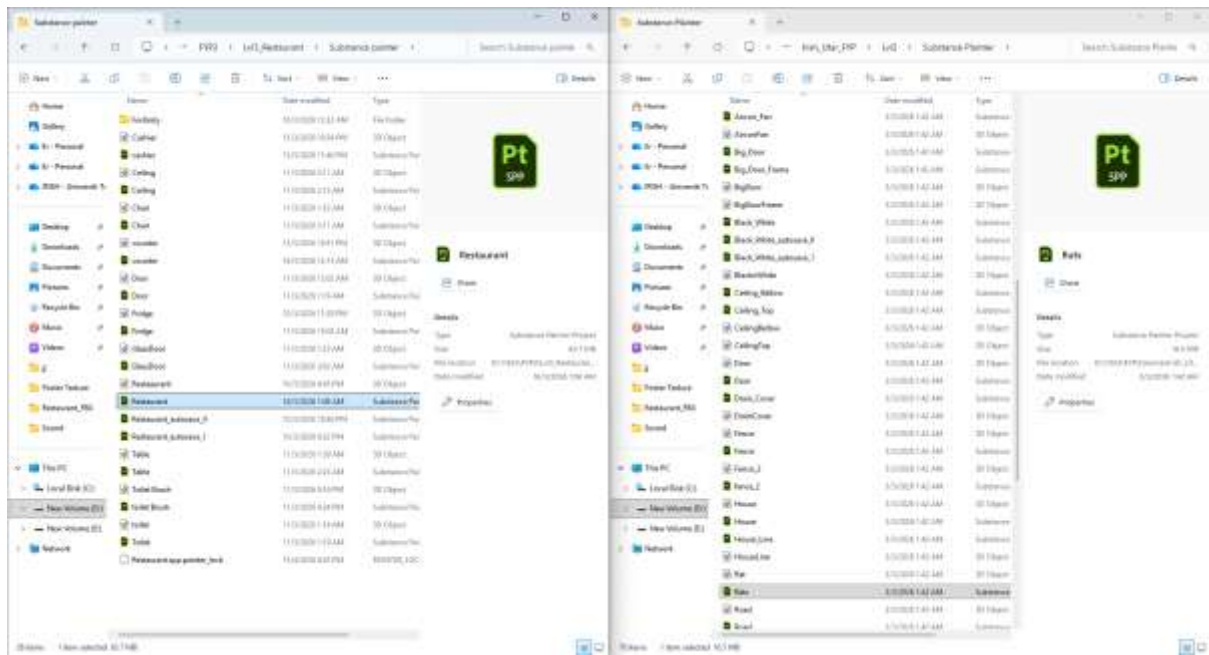


Figure 4.2.2.3 3D Assets File by Using Substance Painter

Once the 3D models have been grouped and sorted, the next step involves exporting them to Substance Painter, where textures are applied. In this case, textures can be applied to the surface of the model without compromising on consistency with other assets. For the large environment components, including the road and buildings, the textures are edited using Adobe Illustrator to produce seamless textures.

The use of seamless textures prevents any visible joints or seams from ruining the immersion created by the environment. The creation of seamless textures out of regular textures allows one to tile the surface without producing any noticeable repetition.

4.3 Texture and Model Optimization

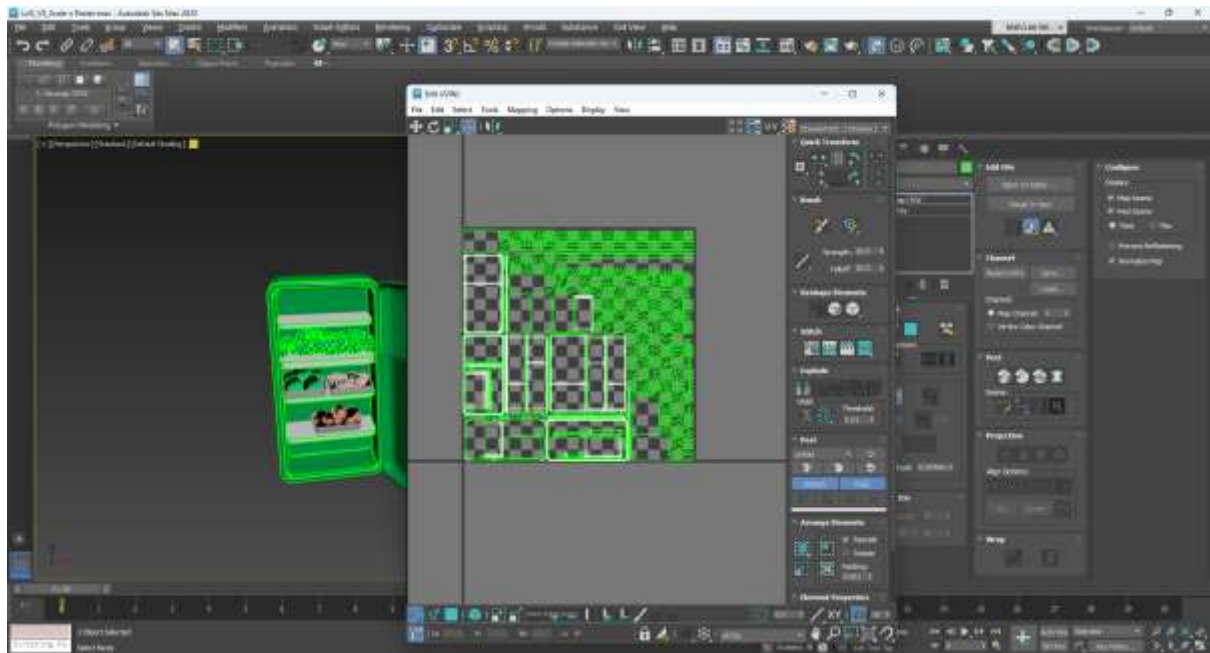


Figure 4.3.1 UVW Map of 3D Refrigerator

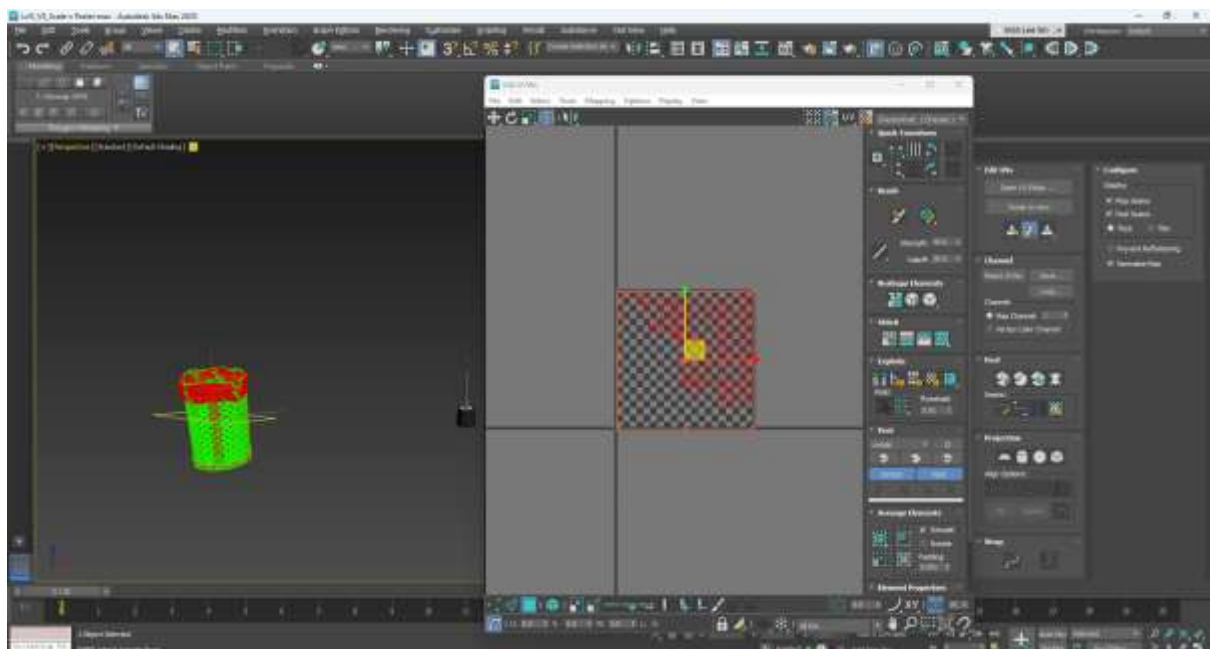


Figure 4.3.2 UVW Map of 3D Dustbin

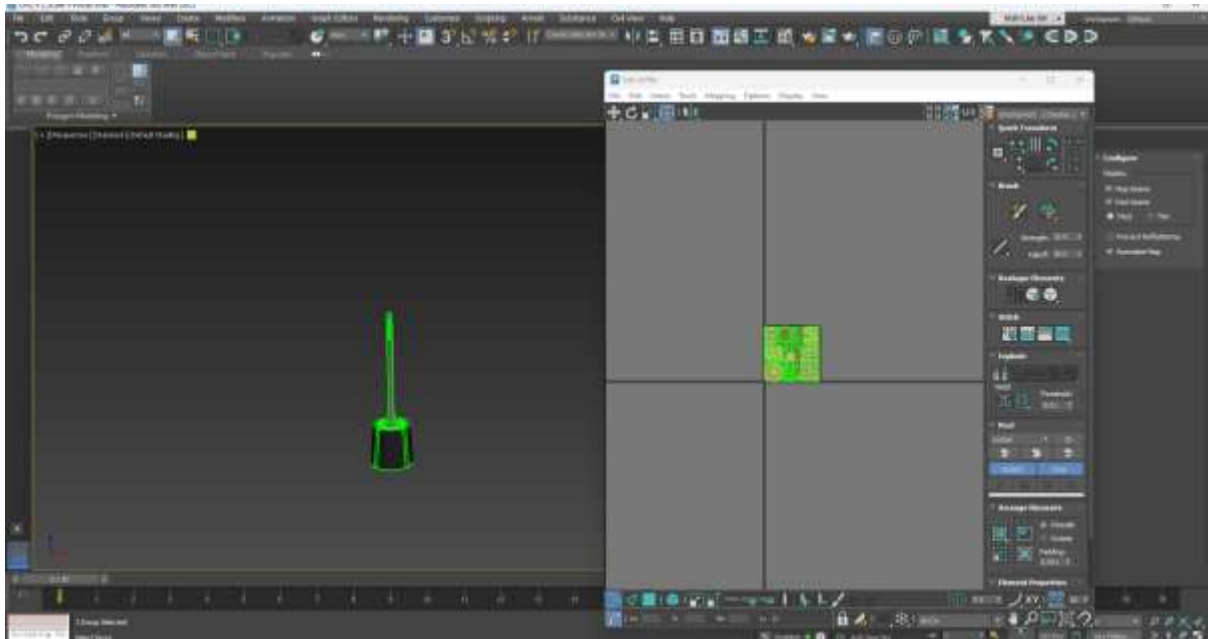


Figure 4.3.3 UVW Map of 3D Toilet Brush

The UVW mapping of complicated three-dimensional models or those having more than one surface is very important. For this purpose, care must be taken while arranging the UV layouts so that different surfaces remain properly aligned with respect to each other. This may mean laying them out in either vertical or horizontal positions according to the requirements.

Moreover, these models are layered separately to make sure there is no problem of overlapping when textures are applied to them. This step is especially vital for highly complex objects where UV mapping could otherwise result in distorted or misaligned textures.

Once the UVW mapping is done, these models are loaded in Substance Painter for texturing purposes. In this way, a uniform texture is guaranteed, as there would be no mismatch of lines and irregularities.

4.4 UI/UX Design Implementation

The user interface design in *Mamak Dreams* is developed with a strong focus on cultural identity, visual consistency, and player immersion. The UI is not only functional but also designed to reflect the theme and progression of the game.

Main Menu Design



Figure 4.4.1 Design of Main Menu

This main menu is designed to happen during the night because that is the actual time when these mamak stalls will be open until late night hours. This helps to make it more culturally authentic and helps create the ambience for the game.

Buttons have been created with the use of wood texture, which represents the protagonist being in his primitive phase of growth wherein the protagonist has not developed a lot of assets yet. The same wooden texture has been used to create the credits and settings menu.

Next Day Menu



Figure 4.4.2 Design of Next Day Menu

The menu for “Next Day” has been designed with inspiration from a calendar format, signifying that of passing time within the game. The colours employed in the designing of the menu include light brown, which relates to the general theme of the game, and red and blue, reminiscent of calendars.

The use of the Malay language to label the days of the week is coupled with features such as the Chinese zodiac.

Level Selection Menu

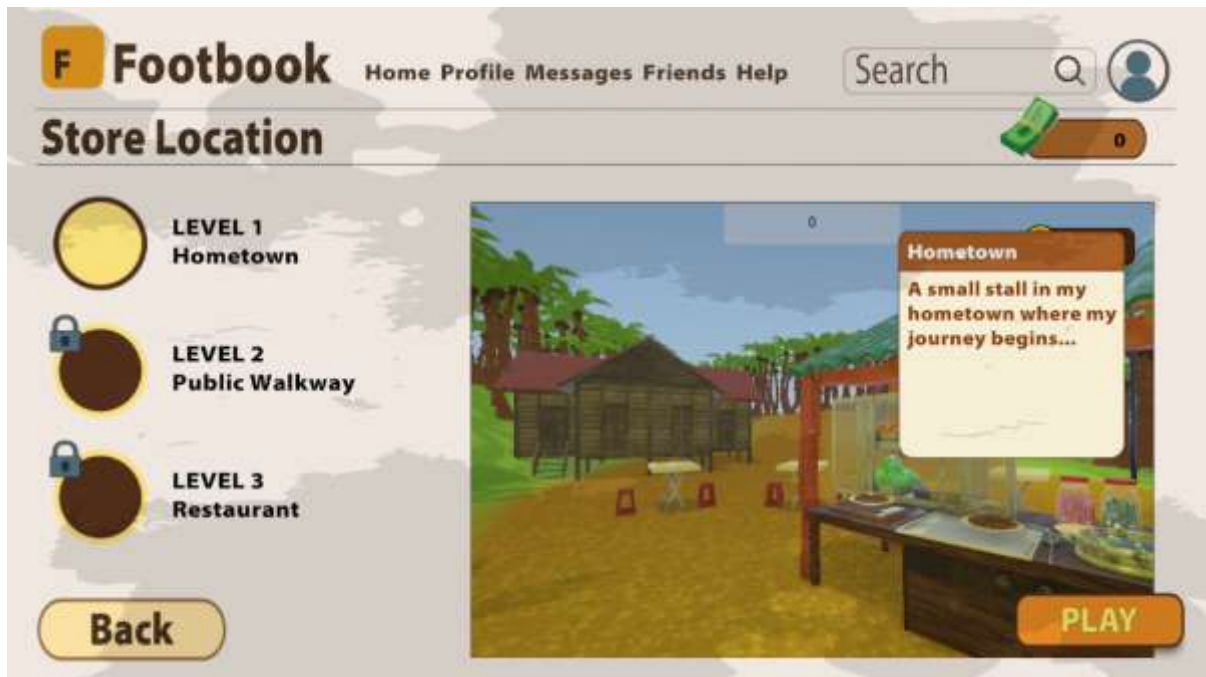


Figure 4.4.3 Design of Level Selection Menu

The menu design of level choice depends on the idea of a social website. Such an approach allows the player to navigate the interface effortlessly, as he/she feels familiar with the design. Moreover, the palette of colors, such as yellow and brown, is also used within the design of the level choice menu, as it continues the color theme of the game.

Pause Menu



Figure 4.4.4 Design of Pause Menu

The pause menu incorporates Malaysian design elements, including grid-based layouts and patterns inspired by *Kolam* art. This reflects the multicultural identity of Malaysia and adds cultural depth to the interface.

Story and Cutscene Design



Figure 4.4.5 Ending Cutscene of Mobile Phone Interface



Figure 4.4.5 Ending Cutscene in First-Person Perspective

Story elements and cutscenes are presented through a mobile phone interface. This design choice enhances immersion by reflecting real-life communication methods, where people use mobile devices to stay connected with others.

Besides, the opening cutscene describes the protagonist's experience from a first-person view. This is to allow players to easily immerse in the story from the protagonist's perspective. This approach makes the storytelling more relatable and strengthens the player's connection to the narrative.

5.0 Result and Evaluation

5.1 Interpretation of Findings

5.1.1 Effectiveness of Gameplay Systems

One of the main goals for Mamak Dreams was to create a system of gameplay elements that could effectively mimic the operations of a Malaysian mamak stall. From the analysis of results obtained during the process of collecting data, it becomes clear that the created systems of gameplay, particularly cooking, customers, and time management systems, were successfully incorporated into gameplay and increased player engagement and satisfaction.

Participants found the cooking gameplay system interesting. Its procedural nature made the game more engaging and rewarding, as seen in the fact that over 60 percent of participants rated their experience with the game with a score of 5 out of 5. Also, the fact that cooking required several steps, including obtaining ingredients, preparing them, and serving them, made it more enjoyable for players.

Furthermore, the customer system was instrumental in making the gameplay more dynamic through the use of orders and real-time action. The existence of multiple customers together with the task of managing their orders at once gave a feel of competition and challenge, something that is consistent with the real-life experiences of food service staff. This finding is evident from the engagement rating results, with most subjects rating the gameplay mechanics as levels 4 (51.1%) and 5 (44.7%), indicating that the game did not turn out to be boring.

Finally, the time system made the gameplay even more realistic through its constraints, thus prompting players to make quick decisions and do prioritizing. This ensured that the simulation mimicked the reality of peak hour pressures in mamak food courts.

5.1.2 User Experience and Interface Design

It is essential to mention that the results also show how effective the user experience and interface design of Mamak Dreams was when it came to players' interaction and accessibility. First of all, the control method used simple and easy-to-understand inputs, such as WASD movements and interactions by using a mouse click. Thanks to that, users were able to master gameplay rather quickly and easily.

Moreover, the implementation of Focus Mode played a critical part in increasing usability. With this feature, users could change focus from general gameplay to more complex interactions with objects. As a result, players were able to reduce the amount of inputs required for mastering the game, despite the necessity to manage many tasks at once, which demonstrates a proper understanding of cognitive load management.

Additionally, survey results demonstrate the efficiency of the interface design, since all participants considered gameplay and ease of use to be very good or excellent (levels 4 and 5).

Moreover, visual aspects of the user interface, which have been addressed in Chapter 4, play a considerable role in creating immersion. This includes such elements as the wooden menu, the calendar-like progression, and the culturally inspired design of the pause menu. Thus, it is clear that well-designed user interface improves not only its efficiency but also the theme of the game.

5.1.3 Cultural Representation in Gameplay

Another important point in regard to the present research is the implementation of Malaysian cultural aspects into the process of game interaction. The results of the current investigation reveal that Mamak Dreams is capable of representing Malaysian culture in an efficient manner, thus creating immersion and increasing levels of user participation

.

As can be seen from the game's design, it is built upon the principle of mimicking actual mamak life, including cooking activities, dealing with customers, and recreating various environments, such as kampung house, street stall, and restaurant. The evolution of the stall into a full-fledged restaurant adds even more cultural depth to the game. As per the conducted survey, users' response towards this cultural integration was quite positive, with 57.4% of respondents giving a score of 5 to the representation of Malaysian culture and 27.7% giving a 4.

Moreover, the use of cultural elements, like Malay language implementation, Chinese zodiac elements, and varied environmental design, indicates Malaysia's multicultural society. It is by incorporating such elements into the mechanics of the game that it succeeds in giving an even more authentic presentation. The integration of the cultural context into the mechanics is essential for achieving such an outcome.

5.2 Challenges and Obstacles Faced

5.2.1 Balancing Gameplay Complexity and Player Workload

Another important problem that had to be solved in the process of development is the equilibrium between the complexity of gameplay and workload for the user. The game Mamak Dreams has quite a few different systems: there are cooking, customer service, time restrictions, cleaning, and other situations such as police stops. However, all of these systems provide more realism but also require higher mental activity from players.

To keep the players engaged and avoid overloading them with tasks, proper balance had to be established. This could be done by adjusting the tempo of the game, number of customers, and other similar things.

5.2.2 Technical Challenges in 3D Asset and Texture Implementation

The creation of 3D assets and texturing entailed a number of technical difficulties, especially concerning workflow efficiency and consistency of the images. Preparing the 3D models to be grouped and exported into Substance Painter was necessary for proper texture application.

Large-scale assets, including roads and building models, should be created in such a way that seamless texture application would be possible. Otherwise, the appearance of textures would repeat unnecessarily, making the model look artificial. In addition, creating seamless images meant taking more time to experiment and achieve consistency of large objects.

Complex 3D models demanded correct UVW mapping to apply textures correctly. UVW mapping entailed organization of UV layout, texture direction alignment, and layer separation to prevent texturing problems related to overlapping of objects. Otherwise, problems with texture patterns and other visual effects would appear.

5.2.3 Performance Optimization Constraints

Another important challenge was striking a balance between visual quality and performance. Although high levels of detailing in the environment and props increase the immersive factor of the game, they place extra pressure on system resources as well. To deal with this problem, an art style with reduced polygon counts was implemented, which allowed maintaining appealing visuals while keeping the load on hardware minimal.

Unfortunately, this method had its limitations too, especially in terms of animation and modeling. In some cases, such as the design of characters like the rat, models needed to be simplified due to poor or mechanical-looking animation.

5.2.4 Integrating Cultural Elements into Gameplay Systems

The use of cultural components in game systems presented both a challenge and an opportunity. Even though the inclusion of Malaysian culture visually into the game can be easily achieved, the implementation of these elements into game mechanics requires further thought.

Take the accurate portrayal of the preparation of mamak foods for example. Another example of this is the use of the environment to reflect the varying stages of development from kampung to more urban areas. Making sure that these cultural components aid gameplay was something that needed constant adjustment in order to achieve a balance between the two.

5.3 Study Limitations

Even though a well-structured methodological approach was used in conducting the research and the development work on the game, several limitations were encountered during this process. First, the relatively small number of about 10 to 15 participants involved means that the findings might not have much generalization.

Second, time limits also posed problems since not all desired features and elements could be introduced due to lack of sufficient development time. It is important to note that many elements could have been introduced to enhance the quality of the game further had there been enough time for development.

Third, some limitations were encountered concerning technological issues, mainly those related to the optimization of the game. Despite attempts made to achieve a balance between performance and quality, the game could have been further optimized.

5.4 Reflections on Development

Thinking about the process of creating the Mamak Dreams, one should admit that combining various gameplay elements, UX design aspects, and cultural aspects poses its challenges and advantages. First of all, the project taught me how critical it is to balance functionality and aesthetics in terms of cultural authenticity.

One of the lessons I have learned is the need to focus on systems integration. Instead of designing separate mechanics, it is necessary to ensure that various systems work together and produce the overall gaming experience. The interaction of cooking, customer management, and time limits is an example of a well-integrated system.

What is more, another lesson learned was the need to involve players in design process. The play tests as well as questionnaires helped identify weak points in my design, such as gameplay understanding and balance of systems.

In addition to the above, the importance of choosing suitable tools and methods was highlighted by the project. In particular, the application of Substance Painter software and the proper technique of UV mapping increased the effectiveness of asset creation. Thus, it once again proves the significance of technical aspects for project success.

Finally, the process of implementation of Malaysian culture in the game became an example of how the games might be used as a means of cultural representation. Using cultural context inside the game systems, Mamak Dreams shows that games can serve as an excellent platform to immerse people into cultural experience.

6.0 Conclusion & Future Directions

6.1 Conclusion

The purpose of this study was to examine the manner in which Malaysian cultural themes could be incorporated successfully in a 3D simulation-based gaming platform using the design of Mamak Dreams as a basis. With the adoption of a practice-based research methodology, the project aimed at exploring not only the design and development process of an interactive game but also its success in delivering cultural content through play.

From the findings, it is evident that the incorporation of gameplay mechanisms embedded with cultural content such as cooking, engaging customers, and time management contributes greatly towards ensuring player immersion and enjoyment during the playing experience. Instead of merely using images to deliver cultural information, the game Mamak Dreams shows that it is possible to integrate cultural information within gameplay mechanisms so that players can experience cultural elements themselves through playing.

Moreover, the research emphasizes the significance of user-centered design when creating accessible and usable products. It has been shown that the incorporation of intuitive control and well-designed interaction system like the “Focus Mode” had led to positive users’ experiences, which was confirmed by high levels of users’ satisfaction and engagement. Such findings demonstrate the importance of finding a balance between complex design and the complexity of interactions with the game interface.

To sum up, this research proves the viability of simulation-based game design as an appropriate way to simulate cultural environments through games. In fact, by incorporating gameplay mechanics, visual design elements, and cultural context into its product, Mamak Dreams managed to reach its goal.

6.2 Practical Applications

There are a number of implications of the findings in this study in terms of practical use in the field of game design, cultural representation, and interactive media. Firstly, the results of this research can be considered beneficial for game developers who aim to include cultural aspects in their designs. The study shows that cultural representation becomes more efficient when it is included in the game mechanics rather than being only aesthetically represented in the game. Such an approach can also be used in the creation of other games based on culturally-themed material.

Another application of the findings is relevant to simulation-game design. The design structure employed in Mamak Dreams includes a number of interacting systems: task management, time pressure, and feedback from the players. Such an approach to game development can be further adopted by other simulation-game creators in order to simulate different types of real-world situations.

Moreover, this paper also emphasizes the role of UI/UX design in improving usability and cohesion within the chosen theme. Utilization of interface elements that are inspired by the culture in question shows how designing an interface is important in creating immersion without compromising clarity and functionality. This knowledge would be useful to anyone interested in creating their own culturally-themed interface design.

Lastly, this paper also helps add to the body of knowledge on digital cultural preservation by showing how games can become interactive platforms for cultural representations. Mamak Dreams showcases how games have the capability to serve as educational tools for cultural representation and awareness through its gameplay.

6.3 Future Directions

In spite of meeting its primary goals, there exist various possibilities for further development and research in the case of Mamak Dreams. One of these possible approaches includes expanding gameplay mechanisms through the introduction of new game elements such as dynamic customers' behavior, expanded menu choice, etc. Such changes can make the game even more realistic and enjoyable for players.

Furthermore, one can also work on improving graphic details by creating high-fidelity graphics, lighting system, animations, etc. Though this option may decrease overall game performance due to increased load on a computer, it still should be considered by developers of Mamak Dreams.

Finally, multiplayer functionality is another aspect which should be improved as a part of future development efforts. This way, one can create an even more realistic representation of mamak restaurants, where people can enjoy not only food but also company of friends and acquaintances.

With regard to research, it might be possible for further research to include a bigger number of participants in order to generate more detailed data related to the experience of the players and the perception of culture by players. Longitudinal studies may also be undertaken in order to see the effects of continued engagement with games incorporating themes based on culture. Furthermore, it may be possible for similar design techniques to be applied to other cultural settings, and compare how different cultures can be depicted using such systems.

6.4 Final Reflections

Creating Mamak Dreams has proven to be both technically and creatively fulfilling. As the game has developed, I have come to realize that game design entails more than just building interesting gameplay mechanics; it includes building compelling experiences which may hold personal or cultural significance for players.

A major reflection which has emerged during the course of this project is the significance of combining design, technology, and culture when making games. Building a compelling representation of a place that is familiar and rich in cultural significance, such as the mamak stall, required more than just technical skill in game development. It involved considering how real-life interactions could be designed and implemented into an interactive system.

The iterative nature of game development also emphasized the importance of adaptability and constant refinement. Feedback provided by users during playtests helped refine various aspects of the game including gameplay mechanics, user interface design, and the overall experience of playing.

Also, the project helped understand how critical it is to strike a balance between aspirations and feasibility. Although there were certain restrictions in terms of time and technological capacity, such limitations helped enhance problem-solving and decision-making skills and played a significant role in bringing about a completed game.

To conclude, Mamak Dreams can be seen not only as an end result of this project, but also as an educational process that helped acquire valuable knowledge in the fields of game design, cultural portrayal, and interactivity. All the insights acquired during the course of this project can become an invaluable starting point for future endeavors in the area.

References

- Anderson, C. (2018). *Interactive media and cultural preservation*. Routledge.
- Brown, A., & Thomas, M. (2015). Simulation games and experiential learning. *Journal of Game Design*, 12(3), 45–61.
- Counihan, C., & Van Esterik, P. (2013). *Food and culture: A reader*. Routledge.
- Deuze, M. (2007). Media work and the cultural economy. *Media, Culture & Society*, 29(6), 946–962.
- Gee, J. P. (2007). *What video games have to teach us about learning and literacy*. Palgrave Macmillan.
- Hassan, F. (2019). Cultural identity and digital media in Malaysia. *Journal of Southeast Asian Media Studies*, 11(2), 45–58.
- Ismail, A., & Rahim, N. (2020). Local content representation in Malaysian digital games. *Malaysian Journal of Creative Media*, 5(1), 22–34.
- Koh, L., & Tan, S. (2020). Malaysian game development: Challenges and opportunities. *International Journal of Game Studies*, 8(2), 77–95.
- Liu, Y. (2018). Digital games for cultural learning. *Computers & Education*, 125, 122–134.
- Long, J. (2017). Games as tools for cultural education. *International Journal of Educational Technology*, 14(1), 23–35.
- Rahman, M. A., & Yusoff, S. (2021). Challenges in culturally driven game development. *International Journal of Game Studies*, 6(3), 60–72.
- Rollings, A., & Adams, E. (2003). *Andrew Rollings and Ernest Adams on game design*. New Riders.
- Shamsul, A. B. (2014). Malaysian cultural heritage and identity. *Asian Journal of Social Sciences*, 42(1), 23–42.

Shaw, A. (2014). *Gaming at the edge: Sexuality and gender at the margins of gamer culture*. University of Minnesota Press.

Smith, J. (2012). Simulation games and user engagement. *Game Studies*, 12(1), 1–18.

Taylor, T. L. (2006). *Play between worlds: Exploring online game culture*. MIT Press.

Wolf, M. J. P. (2015). *The video game explosion: A history from PONG to PlayStation*. ABC-CLIO.

Appendices

Appendix A - Logbook

Appendix A

Project Paper Consultation Logbook	
Project Title	Mamak Dreams
Student Name	Irish Lee Xin Yan
Student ID	2103889
Year/Semester	Y3S2
Supervisor	Dr Simon

WEEK 01	
Comments: Tasks Completed: I attended brainstorming sessions to select the game idea and its genre for the project. I pitched the idea of a cooking game and collaborated with the team to assess various ideas concerning creativity, gameplay, and feasibility. Once we identified the most appropriate idea, I helped define the game's mechanics and narrative, along with a proposed art direction. I also helped to record the finalized idea in Microsoft Word and prepared the PowerPoint presentation for the game proposal. Final Decisions (Outcome): • Game Genre: Cooking game	Supervisor signature: 

• **Core Gameplay:** Players have to prepare food and serve it based on customer orders within a given timeframe.

• **Art Direction:** Cute and soft 3D cartoon style.

• **Target Platforms:** PC (Unity)

Challenges Faced:

The first challenge was trying to unify different creative views within a team. There was a disconnect on how the game should be played and how it should look, which made it a little hard to develop an integrated idea.

Solutions:

I proposed the idea of open discussions and along the lines of the suggested middle ground which used the balance of individual input and cohesive teamwork. Idea cross-examinations and project scope considerations enabled us to sharpen and align with a common concept that meets our goals.

Learning Outcomes / Reflections:

This week was the first time I noticed the impact of communication and cooperation, and especially during creative phases. I appreciated the convergence of different parts to form a single idea,

and I'm inspired by the cooperative spirit, especially during the process of collaborative decision-making.	
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good	Date: 2026/05/19
WEEK 02	
Comments: Tasks Completed: I provided input towards pinpointing the environment and assets needed for the Level 1 of our game. I, along with my teammates, organized the layout and assigned the modelling tasks according to the levels of urgency and significance. I hand-drew a basic illustration of Level 1 with some sample textures for the placeholder level to help us get a feel of the environment. Additionally, I designed the primary interactive 3D levels assets—stall, pot, knife, ladle, and water dispenser. I circulated the assets to the team after constructing the models to gather feedback on the need for additional refinements or changes. Challenges Faced: The major challenge was accommodating and adjusting to the cartoon art style that was required for the project. Post my internship, my modelling style transitioned to more towards the realistic formal type which was contrary to the cartoon style that we had all agreed on. At first, I had a challenge	Supervisor signature: 

adjusting my modelling style and approach towards implementing textures and colours.

Solutions:

To tackle this issue, I focused on researching a variety of styles. I collected references to help learn the shapes, textures, and colours typically used for cartoonish 3D assets. I practiced for a while and then used some games and artworks for observation to fine tune my modelling. This way, I was able to learn converting my models into assets with a more cartoonish style which then complemented the rest of my team's efforts.

Learning Outcomes / Reflections:

From this experience, I learned the importance of finding a singular style to follow for cohesion in the art of a game. I also learned how incredibly small details, like the colour tone and texture style, can impact the overall view and experience of a player. This process was a good way for me to learn flexibility with my art style, and to adapt to the direction the game needed. I also learned that it was more productive to the overall game design to adapt my style to how it was needed in the rest of the team's assets.

Progress (please circle the feedback)

1	2	3	4	5
Poor		Satisfactory		Good

Date:

2026/05/19

WEEK 03

Comments: Tasks Completed:

I added improvements to the PPT, such as inserting reference videos to give the audience a clearer visual understanding of our game concept. I also included sketches and revised certain slides of sections to make the presentation look more complete. In addition, I discussed with my teammates about which slides each of us would be presenting on the presentation day.

To support the development process, I created simple 3D assets, applied textures, and exported the FBX files to our teammate who is in charge of coding, so he could begin studying how to implement them in the game.

Challenges Faced:

After the consultation session, we realised that the audience still lacked a clear visual picture of our game. Even though our explanation was detailed, it was still difficult for them to imagine how the ideas would actually appear in the game.

Another challenge was that our coding teammate needed more time to study how to make the game function and required appropriate assets to begin experimenting.

Solutions:

To help the audience understand our concept better, my team and I decided to look for reference videos that closely matched our game style. I also created

Supervisor signature:

several simple 3D assets needed by my teammate so he could start testing the coding aspects earlier.

Learning Outcomes / Reflections:

I learned that no matter how detailed our descriptions are, the audience may still struggle to visualise the game. More images and video references are necessary to communicate ideas clearly.

This week also taught me the importance of cooperation and planning. By coordinating with my teammates, we improved our efficiency and prepared ourselves better for the upcoming game production stages.

Progress (please circle the feedback)

1	2	3	4	5
Poor	Satisfactory		Good	

Date:

2026/05/19

WEEK 04

Comments: Tasks Completed:

During Week 4, I completed the Game Proposal presentation as scheduled. After the presentation, I revised the presentation slides to include the newly decided feature of Multiple Endings. My teammates and I then conducted a post-presentation discussion to refine three essential gameplay components: the Penalty System, the Starting Point, and Music in Game. Before the submission deadline given by Dr Simon, I uploaded the final version of the

Supervisor signature:



presentation slides to WBLE. I also communicated with the lecturers to confirm our chosen game title, Mamak Dreams.

Challenges Faced:

The most significant challenge I encountered this week was the need to change our plan after the presentation. At first, I genuinely believed that the two game concepts we had developed were strong in all aspects. However, after presenting, it became clear that we had overlooked several important details, especially the penalty mechanics, the starting point of the game, and the background music direction. The lack of depth in these areas forced us to return to discussion, which slowed down our workflow and increased the risk of delaying later project milestones.

Solutions:

To overcome this issue, I took my team discussion where everyone shared their viewpoints and suggestions. We selected only the most suitable ideas to incorporate into our game concept. We also utilised feedback from the lecturers. For example, using *Overcooked* as a reference for background music. Once decisions were finalised, I recorded them immediately to ensure nothing would be forgotten later.

Learning Outcomes / Reflections:

This week taught me several important lessons. First, I learned that relying only on memory and personal thinking is unreliable, as it is easy to miss details no matter how hard I try to consider every angle. Second, I discovered the value of listening to others. For example, input from teammates and lecturers provided solutions that I would not have identified on my own.	
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good	Date: 2026/05/19
WEEK 05	
Comments: Tasks Completed: This week, I completed all the required 3D assets for Level 1 of Mamak Dreams. Using 3ds Max, I created additional models such as the ice box and frying ladle. I also finished texturing the previously incomplete assets such as the frying plate, cutting knife, and hot water container by using Substance Painter. After completing the models and textures, I reviewed the assets to ensure they matched the visual feel of a real Malaysian Mamak stall. By the end of the week, all assets needed for Level 1 gameplay were fully prepared. Challenges Faced: The biggest challenge I encountered was deciding the correct texture style. Even with the same 3D	Supervisor signature: 

model, using a different texture style such as cartoon, realistic, or 2.5D created a completely different visual feeling. Another difficulty was maintaining the authentic Mamak atmosphere, because the environment relies heavily on small cultural details. I also experienced visual and aesthetic fatigue, which made it difficult to judge whether the textures still looked right after staring at them for too long.

Solutions:

To solve these issues, I constantly referred to real Mamak stall photos to guide my texturing decisions. When visual fatigue appeared, I applied a method I found online: taking a 30-minute break before reviewing the asset again. This helped me see problems more clearly. I also discussed my work with teammates to get fresh opinions and ensure the assets matched our game's intended style.

Learning Outcomes / Reflections:

This week taught me the importance of having a clear art direction when texturing. I learned that real-world reference is essential for achieving an authentic Mamak-style environment. I also realised that taking breaks can effectively reduce visual fatigue and improve decision-making. Finally, I understood that aesthetics can be very subjective, so gathering feedback from others is valuable in producing consistent and culturally accurate assets.

Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good					Date: 2026/05/19
WEEK 06					
Comments: Tasks Completed I completed the tutorial scene for our game <i>Mamak Dreams</i> by modelling key environmental assets, including the cabinet, window, gas stove, and wok. I textured these 3D assets using Substance Painter. Adding detailed surface elements such as oil stains from cooking, accumulated dust, and greasy fingerprints to reflect the realistic of a Malaysian Mamak stall. In addition, I designed the Main Menu interface using Adobe Photoshop, which included the Play, Settings, Tutorial, and Credits buttons. Challenges Faced The main challenge I faced was managing time effectively. Besides developing the game assets, our team also needed to prepare presentation slides for the Week 8 presentation. It created pressure to complete all tasks within a limited timeframe. I was also concerned about whether we could present our game project clearly and confidently. Another challenge was ensuring that the 3D assets successfully conveyed the distinct Mamak atmosphere through texture details.					Supervisor signature: 

Solutions To overcome these challenges, I carefully scheduled my tasks and consistently planned ahead. After finishing each task, I researched references for the next asset to gather inspiration and decide on the appropriate layout, materials, and textures. I also studied real Mamak stall details to understand everyday objects which helped me enhance the authenticity of my assets. Learning Outcomes This experience taught me that small texture details play a crucial role in building a believable game environment. I also learned the importance of planning ahead and time management when working under tight deadlines. Most importantly, I gained a clearer understanding of how to visually communicate cultural identity through 3D assets while maintaining efficiency in a team-based project.	
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good	Date: 2026/05/19

WEEK 07**Comments: Tasks Completed**

I worked on several in-game UI and 3D assets for *Mamak Dreams*. I designed the customer food order UI and coin bar to support clear gameplay feedback. I also created visual effects such as cooking smoke and boiling bubbles using Unity's particle effect to enhance realism. In addition, I modeled and textured tables, chairs, and ingredient storage assets (plastic jars and metal trays) using 3ds Max and Substance Painter. I imported ingredient models created by my teammate into 3ds Max, completed the required assets, and exported everything into Unity for Level 1's inventory system.

Challenges Faced

A major challenge was texture colour inconsistency after importing assets into Unity. This issue occurred because my teammate used Blender while I used 3ds Max, which caused unexpected colour differences during the export and import process.

Solutions

To solve this, I researched online resources, consulted teammates and friends, and repeatedly tested different export, texture, and material settings across the software. Through experimentation, I gradually identified possible causes and reduced the colour mismatch.

Learning Outcomes**Supervisor signature:**

This experience taught me that 3D artists need more than modelling skills, including knowledge of multiple software workflows and game engine integration.	
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good	Date: 2026/05/19
WEEK 08	
Comments: Tasks Completed I completed several 2D art designs, including the Level Menu, Result Page, Weekly Menu, Upgrade Menu, and Groceries Menu. I designed these UX/UI elements using Adobe Illustrator. The main colour theme is light brown, with white as the base, and yellow, blue, and red used as accent colours to prevent the design from looking dull. Challenges Faced During the design process, choosing accent colours often takes a long time. This is because finding well-matched colour combinations requires careful testing to see which colours work well together and which do not. Solutions When I discover colour combinations that work well, I record them for future use. This helps me	Supervisor signature: 

match colours more efficiently in my next 2D art projects and ensures the overall design remains harmonious and visually consistent.		
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good		Date: 2026/05/19
WEEK 09		
Comments: Tasks Completed I completed the Rat and Level 2 map. I first modelled the environment in 3ds Max, including streetlights, roads, buildings, and fences. I then used Substance Painter to create textures for the 3D assets, ensuring the overall environment looks natural and visually harmonious. I added details such as uneven roads, tire marks on the street, and shop signs in Malay, English, and Chinese. The buildings were referenced from shops near my hometown. I also added a walking animation to the Rat. Challenges Faced I faced difficulties while creating the animation because I was not familiar with animation techniques. When I tried using several 3ds Max functions, such as HI Solver, HD Solver, and Spline IK Solver, the animation did not achieve the result I wanted. Solutions		Supervisor signature: 

To solve this problem, I asked friends who are familiar with 3ds Max and searched for tutorials on YouTube. Eventually, I successfully created a smooth tail-swing animation for the Rat, making its movement look more natural and less stiff.	
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good	Date: 2026/05/19
WEEK 10	
Comments: Tasks Completed I completed several in-game UI elements such as the timer and warning sign. At the same time, I started designing the Level 3 map. I first created sketches to plan the layout. The map is designed as a stall located among many other stalls. After completing the sketch, I discussed it with my teammates and made adjustments based on their feedback until the map design was clear and workable. Challenges Faced When I placed the Level 2 map into Unity, I discovered that players could see some empty spaces in certain areas of the environment. This could affect the gameplay experience or potentially cause bugs if players reach unintended areas. Solutions To solve this issue, I carefully planned which objects should be placed in certain areas to cover	Supervisor signature: 

the empty spaces and prevent the environment from looking too empty. I also created detailed sketches so that I could reduce major changes later when building the map.	
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good	Date: 2026/05/19
WEEK 11	
Comments: Tasks Completed I started creating the Level 3 map based on my sketches by building the 3D assets. I modeled the canopy and other stall assets such as manicure items, tables, desserts, books, perfume bottles, shelves, and light bulbs. Besides the main mamak stall of the player, I also designed other stalls to make the environment feel more lively and crowded. Challenges Faced Designing different types of stalls required a lot of research and planning. Each stall should have its own style and atmosphere. Sometimes after finishing the assets, I realized that some of them did not match well together, so I had to search for new references and redesign them. Solutions During this period, I also went outside to observe real stalls for inspiration. I visited places with many stalls such as the markets in Cheras and Pasar Seni,	Supervisor signature: 

and I took photos to record references for my designs.	
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good	Date: 2026/05/19
WEEK 12	
Comments: Tasks Completed After completing the Level 3 3D assets, I exported them for texturing. I used Substance Painter to create the textures. I used brushes to add shadows to make the objects look more three-dimensional, and I also added slight dirt effects so the assets appear more realistic. Challenges Faced Because there were many assets, it took a long time to check whether each texture matched well with the others in the game environment. If I found that some colors or styles did not fit with the rest, I needed to adjust and rework them. Solutions While texturing, I constantly referred to references and experimented in Substance Painter to find the right style. This process helped me better understand the visual style I wanted and improve my ability to create consistent textures for the assets.	Supervisor signature: 

Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good	Date: 2026/05/19
WEEK 13	
Comments: Tasks Completed I completed the Level 3 environment, which is the mamak restaurant. The restaurant includes a waiting area, dining area, kitchen, restroom, and payment counter. I created the 3D assets using 3ds Max, including the counter, cashier table, dining tables, chairs, rubbish bins, and fridge. After that, I used Substance Painter to create textures for each asset. I added slight dirt and shadows to make the environment look more realistic, immersive, and three-dimensional. Finally, I imported all the assets into Unity, converted the textures into materials, and applied the materials to the corresponding assets. Challenges Faced During the process, I had to carefully consider the scale and size of each 3D asset. Incorrect sizes could make the environment look unnatural from the player's perspective. This issue also slowed down my FYP progress because I needed to spend additional time adjusting the asset sizes. Solutions To solve this problem, I searched online for similar items, especially on platforms like Lazada and Shopee, where product listings often include real	Supervisor signature: 

measurements. I used these measurements as references to better estimate the size of objects in the virtual environment.	
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good	Date: 2026/05/19
WEEK 14	
Comments: Tasks Completed I completed the Pause Menu design using Adobe Illustrator. The main color used is grey with yellow accents to give the menu a slight Indian-inspired style that matches the mamak theme. I carefully organized the layers so that the file would be neat and easier to export as PNG files for Unity. I also created several 3D assets using 3ds Max, including a toilet brush, brush bucket, counter, and cashier area. After modeling, I used Substance Painter to create the textures, then imported the 3D assets and textures into Unity and converted the textures into materials. I also converted all the 2D assets into Sprite (2D and UI) format for use in Unity. Challenges Faced Designing the 2D assets took a long time and was one of the more challenging parts for me. I needed to ensure that the design matched the game style and reflected the feeling of a mamak restaurant. I spent a lot of time studying colour combinations and the overall visual style.	Supervisor signature: 

Solutions To improve my design ideas and aesthetic sense, I searched for references on Pinterest, Google, and Rednote. While researching mamak-related elements, I also looked at other design works for inspiration and ideas.	
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good	Date: 2026/05/19
WEEK 15	
Comments: Tasks Completed I created the Bad Ending and Happy Ending cutscenes using Adobe Illustrator. The cutscenes are presented as messages on a mobile phone, where the main character's mother communicates with the player. This approach uses a messaging format to tell the story in a simple and clear way. Challenges Faced At the beginning, we planned to use 2D animation to present the ending. However, we realized that it would require a large amount of time to complete. Solutions After discussing with my teammates, we decided to use a simpler and more practical method, which is a dialogue-based cutscene. This approach allows us to deliver the story effectively while managing our time better.	Supervisor signature: 

Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good		Date: 2026/05/19
WEEK 16		
Comments: Tasks Completed I worked in Unity to set up the 2D assets as Sprites and arranged the layouts for the 2D menus, including the Pause Menu, Ending Cutscene, Result Menu, and Next Day Menu. Challenges Faced At first, I uploaded the 2D assets to Unity and changed the Sprite settings. However, because there were so many Sprites, my teammate responsible for Unity could not arrange the layouts according to the final 2D artwork. Solutions To solve this, I arranged the layouts myself in Unity and then handed them over to my teammate to continue with the next tasks.		Supervisor signature: 
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good		Date: 2026/05/19

WEEK 17

Comments: Tasks Completed

I worked with another teammate to discuss the game's sound effects, ambient sounds, and background music. We explored what types of audio would best match the theme and atmosphere of our game. After that, I converted the sound effects and music into MP3 format and renamed the files clearly before sending them to the teammate responsible for Unity (GV). This helped ensure that everyone understood which files should be used in each Unity scene.

Challenges Faced

We faced challenges when selecting background music because it needed to reflect Malaysian culture while also fitting the mamak theme. I found that many Malaysian traditional instruments are more suitable for themes like nature, weddings, or Raya, which made it difficult to match the game mode.

Solutions

After discussing with another GS teammate, we decided to focus only on ambient sound instead of background music. For example, the Tutorial and Level 1 use forest ambient sounds to reflect a rural environment, Level 2 uses city traffic sounds, and Level 3 uses restaurant ambient sounds such as customers talking.

Supervisor signature:



What I Learned Through this process, I learned the importance of adapting audio design based on the game's context and limitations. Instead of forcing unsuitable music, choosing appropriate ambient sounds can still create an immersive and realistic experience for players.	
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good	Date: 2026/05/19
WEEK 18	
Comments: Tasks Completed This week, I focused on optimization. I adjusted and expanded the Level 3 restaurant area so that more tables and chairs could be placed, allowing more customers to dine comfortably. I also updated the fonts for the Main Menu, Settings Menu, and Credits Menu to match the font style used in other menus, creating a more consistent and unified design. In addition, I created new 3D assets such as roadblocks for the Level 2 city street and posters for the Level 3 restaurant. As before, I used 3ds Max to model the assets, adjusted the UVW mapping, and then applied textures using Substance Painter. Challenges Faced and Solutions Previously, the GV teammate requested combining multiple 3D assets into a single object. However, this week, the requirement changed, and I	Supervisor signature: 

separated the combined object back into individual assets. After completing the optimization and 3D work, I uploaded everything into Unity. In Unity, I set the 2D assets as Sprites, arranged the layout of the 3D assets, and applied the correct materials to each object.

What I Learned

Through this process, I learned the importance of flexibility and adaptability in a team project. Requirements can change, and being able to quickly adjust my work helps improve overall workflow and ensures better collaboration within the team.

Progress (please circle the feedback)

1 2 3 4 5
 Poor Satisfactory Good

Date:

2026/05/19

WEEK 19/

Comments: Tasks Completed

I created a 3D model of Nasi Lemak to make the mamak restaurant look like it has a variety of food. I used 3ds Max for modeling and Unwrap UVW, then uploaded it into Unity. After arranging the position properly, I pushed the files to GitHub for my teammates.

Challenges Faced

The main challenge I faced was creating the wrapping design of the Nasi Lemak. I needed to

Supervisor signature:



make the wrapping lines visible and clearly show that it was wrapped with two layers of packaging. However, the wrapping pattern was quite complex, so it took a long time to create a design that looked both accurate and visually appealing. Solutions To solve this, I observed reference photos online and carefully traced each wrapping line in 3ds Max. Then, I created the second wrapping layer, which is the outer layer made of leaves.	
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good	Date: 2026/05/19
WEEK 20	
Comments: Tasks Completed I added more 3D assets such as boards and tissue boxes to the Level 3 restaurant scene to make the environment feel less empty. In addition, I designed our group logo and discussed the game icon design with another GS teammate. Challenges Faced Creating the right atmosphere required a lot of time and consideration when deciding which assets to include. At first, even though the restaurant already had interactive props, the environment still felt empty and lacked the desired atmosphere.	Supervisor signature: 

Solutions To improve this, I visited several mamak restaurants to observe what additional props could be included. After gathering references, I used 3ds Max and Substance Painter to create the assets based on what I observed. What I Learned Through this process, I learned that building a convincing environment requires careful observation and thoughtful asset placement. Adding small but relevant details can significantly enhance the overall atmosphere and make the scene feel more complete and realistic.	
Progress (please circle the feedback) 1 2 3 4 5 Poor Satisfactory Good	Date: 2026/05/19
WEEK 21	
Comments: Tasks Completed I used Adobe Illustrator to design the posters for <i>Mamak Dreams</i> and the name cards for my teammates. I also designed the team logo. I mainly used warm color tones to ensure that all the promotional materials looked visually consistent. Challenges Faced When designing the name cards, I initially used black as the main color. However, I realized that it did not match well with the poster design.	Supervisor signature: 

Solutions

To solve this, I copied the color codes from the posters and redesigned the name cards. This ensured that all promotional materials shared the same visual theme and looked more organized and cohesive.

What I Learned

Through this process, I learned the importance of consistency in visual branding. Using the same color palette across different promotional materials helps create a stronger identity and makes the overall presentation look more professional and unified.

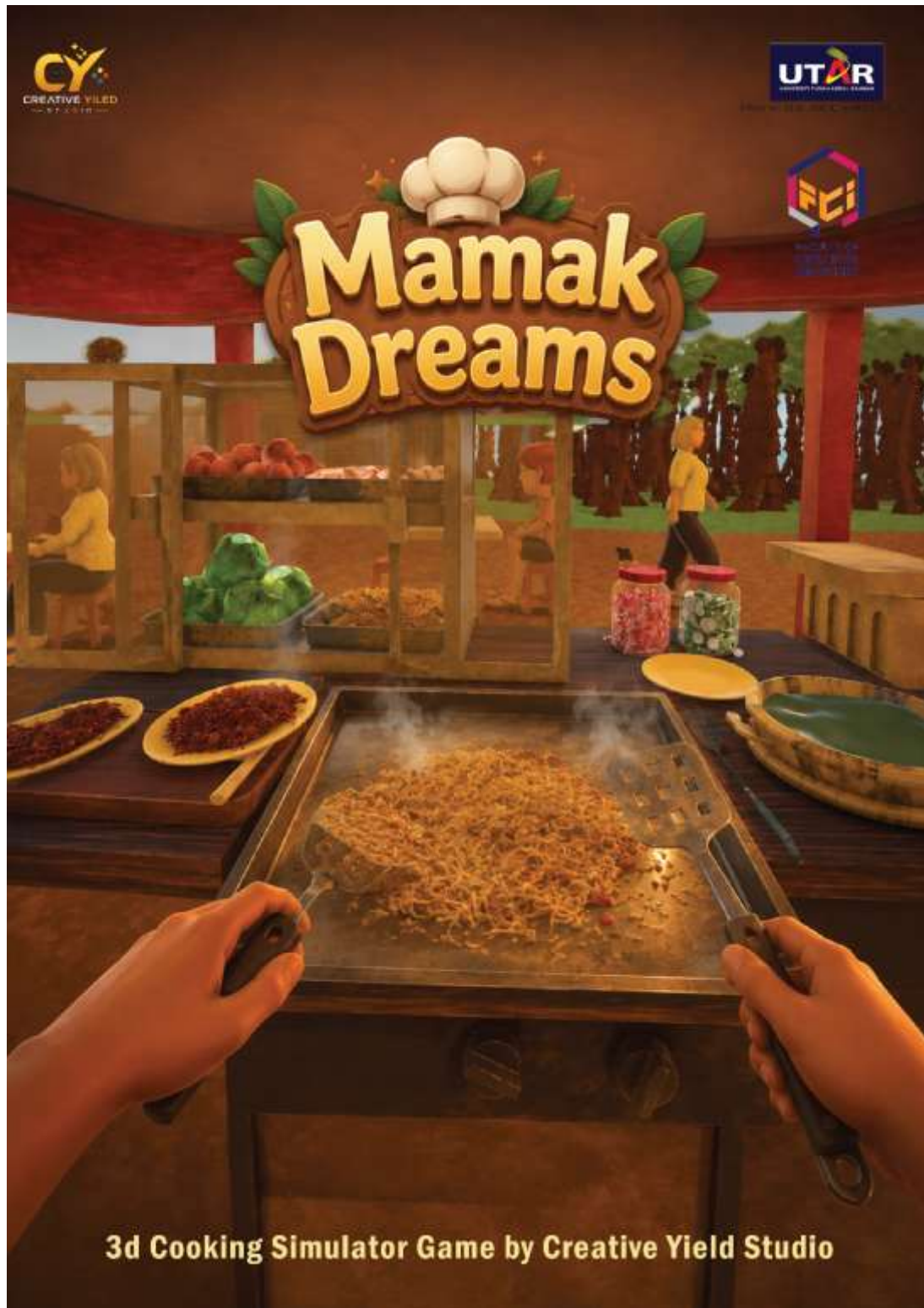
Reflection

In the Level 3 scene, the restaurant has a toilet-cleaning challenge. If the toilet is dirty, customers will leave. The required 3D assets are toilets and toilet brushes. I finished them a few weeks ago, but it ended up being decorations instead of game mechanic. GV gave me the reason that he didn't have time to finish it when it was nearing its end.

I finished the 2d Level Selected Menu when the semester started, but GV didn't mention any problems with it. He only told us what issues arose and what changes I needed to make when we asked him why. But it's too late, because he has already coded this menu. Therefore, this is completely different from my initial design. The

Appendix D

Poster



Concept Board



Name Card



Appendix H

Final Project Title Form

Fill in the information below as detailed as you can after confirming project title.

Project Type:

☒ Product Based Project

☐ Research Based Project (tick the appropriate box)

Student ID	Student Name	Email & Contact no
2301484	Chloe Hew Kha Yee	chloe7979@lutar.my 017-7659692
2103889	Irish Lee Xin Yan	xiaobeifen123@lutar.my 011-37171080
2301896	Sim Wee Puo	simweepuo@lutar.my 018-3746772

Supervisor: Dr. Simon Ang Kok Yew

Project Title: Mamak Dreams

Project description:-

The Mamak Dreams game, created by a development team consisting of a game programmer and two game designers, is a first-person cooking simulation game using Unity as its main software engine. This game is based on Malaysian mamak restaurant culture, allowing players to manage their food preparations, customer service, restaurant operations, and day-to-day progress within the environment.

The gameplay mechanics of Mamak Dreams center around offering an enjoyable experience to the player, through cooking systems, customer artificial intelligence behavior, environment stories, and cultural-themed artistry. Gameplay elements for the project involve cooking mechanisms, customer service mechanisms, economics management mechanisms, day-night cycle mechanisms, customer interaction mechanisms, tutorial mechanisms, and immersive environment design.

Student Name	Individual Project Scope
Chloe Hew Kha Yee	Development of character 3D models, character animations, food and beverage assets, game props modeling, storyboard development, ending cutscenes, and 2D recipe and icon designs
Irish Lee Xin Yan	Development of level design, environmental design, decorative props modeling, gameplay mechanic assets, UI assets, menu layouts, cutscene animations, audio editing, and promotional materials including posters, business cards, and logo design.
Sim Wee Puo	Development and implementation of gameplay systems including player controls, interaction systems, cooking mechanics,

	serving systems, customer AI systems, economic systems, database management systems, tutorial systems, and gameplay progression systems.
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Appendix – Survey (Google Form)

5/22/26, 5:03 AM

Title: Mamak Dreams - Cultural Representation in 3D Games

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Section A – Demographic Information

This section collects basic background information about the participants, such as age, gender, nationality, ethnicity, and gaming habits. These details help us understand the diversity of respondents and allow us to analyze how different demographic groups perceive the game and cultural representation.

* Indicates required question

1. 1. What is your age? *

Mark only one oval.

- ☐ Under 15
- ☐ 16-20
- ☐ 21-25
- ☐ 26-30
- ☐ 30 and above

2. 2. What is your gender? *

Mark only one oval.

- ☐ Male
- ☐ Female
- ☐ Prefer not to say

3. **3. What is your nationality? ****Mark only one oval.*☐ Malaysian☐ Other:
_____4. **4. What is your ethnicity? ****Mark only one oval.*☐ Malay☐ Chinese☐ Indian☐ Indigenous / Orang Asli☐ Other:
_____5. **5. How often do you play video games? ****Mark only one oval.*☐ Daily☐ Several times a week☐ Once a week☐ Rarely☐ Never

Section B – 3D Malaysian Cooking Simulator Game Experience

This section focuses on participants' experiences with the 3D Malaysian cooking simulator game demo. It explores gameplay engagement, visual appeal, realism, usability, and overall enjoyment in order to evaluate the effectiveness and quality of the game design.

6. **1. How would you rate your overall experience with the 3D Malaysian cooking simulator demo?** *

Mark only one oval.

	1	2	3	4	5	
Poo	☐	☐	☐	☐	☐	Excellent

7. **2. How engaging did you find the gameplay mechanics?** *

Mark only one oval.

	1	2	3	4	5	
Not	☐	☐	☐	☐	☐	Very Engaging

8. **3. How realistic did the cooking activities feel in the game?** *

Mark only one oval.

	1	2	3	4	5	
Not	☐	☐	☐	☐	☐	Very Realistic

9. **4. Did you find the game visuals appealing? ****Mark only one oval.*

1 2 3 4 5

Not ☐ ☐ ☐ ☐ ☐ Very Appealing10. **5. Was the game easy to understand and play? ****Mark only one oval.*

1 2 3 4 5

Very ☐ ☐ ☐ ☐ ☐ Very Easy11. **6. Would you recommend this game to others? ****Mark only one oval.*

1 2 3 4 5

Definitely ☐ ☐ ☐ ☐ ☐ Definitely Yes**Section C – Representation of Malaysian Traditional Culture**

This section examines how Malaysian traditional culture is represented in the 3D game. It investigates the accuracy, clarity, diversity, and educational value of cultural elements such as food, language, environment, music, and traditions, and how these influence player understanding and interest in Malaysian culture.

12. **1. To what extent do you think the game reflects Malaysian traditional culture?** *

Mark only one oval.

1 2 3 4 5

Very ☐ ☐ ☐ ☐ ☐ Very Strong

13. **2. Which traditional Malaysian elements did you notice in the game?** *

Check all that apply.

- ☐ Cultural ingredients/spices
- ☐ Traditional attire
- ☐ Language use
- ☐ Cultural decorations
- ☐ Other: _____

14. **3. How accurately do you feel the game represents Malaysian food culture?** *

Mark only one oval.

1 2 3 4 5

Very ☐ ☐ ☐ ☐ ☐ Very Accurate

15. **4. How well does the game showcase Malaysian cultural diversity?** *

Mark only one oval.

1 2 3 4 5

Very ☐ ☐ ☐ ☐ ☐ Very Well

16. **5. Did the game increase your interest in Malaysian traditional culture? ***

Mark only one oval.

1 2 3 4 5

Not ☐ ☐ ☐ ☐ ☐ Strongly Increased

17. **6. Which aspects of culture should the game represent more clearly? ***

Check all that apply.

- ☐ Traditional food varieties
- ☐ Cooking methods / techniques
- ☐ Traditional clothing
- ☐ Language or local expressions
- ☐ Traditional music or sound atmosphere
- ☐ Cultural environment (kampung, kopitiam, pasar malam, etc.)
- ☐ Other: _____

18. **7. Do you think the game educates players about Malaysian culture? ***

Mark only one oval.

1 2 3 4 5

Not ☐ ☐ ☐ ☐ ☐ Definitely Yes

19. **8. To what degree did the traditional elements enhance your enjoyment of the game? ***

Mark only one oval.

1 2 3 4 5

Very ☐ ☐ ☐ ☐ ☐ Very High Degree

20. **9. Any additional comments about cultural representation in the game?**

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Google Forms