myLahi: A Digital Game on Filipino Traditions and Mythical Creatures

A THESIS

Presented to the

The Faculty of the College of Computer Studies

Don Honorio Ventura State University

Bachelor of Science in Information Technology

In Partial Fulfillment

Of the Requirements for the Degree

Bachelor of Science in Computer Science

By:

Basilio, Crisanto S.

Malveda, Limwell Jake P.

Pineda, Raymund Paolo I.

Ramirez, John Russel B.

Sanchez, Seinthe R.

Santos, Francis Ford L.

# ACKNOWLEDGEMENT

The researchers owe their profound gratitude to their thesis adviser – Mr. Eden Garcia and thesis writing teacher – Ms. Aileen P. De Leon. They took keen interest on their project work and guided the researchers all along, until the completion of the project by providing all the necessary guidance to accomplish it.

Again, the researchers are thankful to all the respondents who have helped them by participating in the study and given the information during their field work.

Finally, the researchers would like to express their gratitude to the Almighty Father, their parents, family, and friends for their continuous encouragement, love, and support, which made this assignment possible.

Contents

[Abstract 1](#_Toc88412839)

[Introduction 2](#_Toc88412840)

[Objectives of the Study 9](#_Toc88412841)

[Scope and Delimitations 9](#_Toc88412842)

[Significance of the Study 10](#_Toc88412843)

[Conceptual Framework 11](#_Toc88412844)

[Methodology 13](#_Toc88412845)

[Research Design 13](#_Toc88412846)

[Systems Development Methodology 14](#_Toc88412847)

[Plan 15](#_Toc88412848)

[Design 15](#_Toc88412849)

[Develop 15](#_Toc88412850)

[Test 16](#_Toc88412851)

[Deploy 16](#_Toc88412852)

[Review 16](#_Toc88412853)

[Required Specification and Analysis 16](#_Toc88412854)

[Game Flowchart 19](#_Toc88412855)

[Implementation Plan 20](#_Toc88412856)

[Statistical Analysis 22](#_Toc88412857)

[RESULTS AND DISCUSSION 26](#_Toc88412858)

[CONCLUSION AND RECCOMENDATIONS 41](#_Toc88412859)

[References 42](#_Toc88412860)

[APPENDICES 47](#_Toc88412861)

# Abstract

As the digital games became more apparent over the years, generations became more interested and hooked to these games. As a result, traditional games that have been a vital part of every Filipino childhood and mythological creatures and their folklores that symbolize our forefathers' traditions and culture are gradually being disregarded. These customs play a significant factor in having our own cultural identity. It is critical for current and future generations that research is performed to determine the best approaches for maintaining this heritage in an era when modern digital games have grown in popularity. This study, entitled "myLahi: A Digital Game on Filipino Traditions and Mythical Creatures," was created to remind Filipinos of their cultural roots and educate them about various Filipino Traditional Games and Mythical Creatures. The proponents used a lot of components in terms of hardware and software development tools. Furthermore, the development tools used were Godot Engine for coding, Blender for creating and animating the character, Audacity for sound design, and Sketchbook for the design. This study used quantitative approaches to collect data, which included a pretest and posttest design.

Keywords: Filipino traditions, traditional games, mythical creatures, digital game

# Introduction

The Philippines has a long and enduring history of establishing its deeply rooted culture. The blend of western and Asian cultural ideals makes the Philippines culturally rich and unique to this day (Masanga, 2021). Many aspects of a country can contribute to its culture, one of which is the traditional games and mythical creatures. After all traditional games are viewed as the finest platform for promoting peace, harmony, goodwill, and camaraderie. Traditional Filipino games, also known as indigenous games in the Philippines, are frequently played with native materials or instruments. Piko, patintero, taguan, tumbang preso, siato, sipa, and luksong tinik are some of the country's most popular and well-known traditional games. Though there are limited materials, Filipinos keep the joy of youth because of the games invented by their ancestors. Youth assemble in the streets or on the neighborhood playground to participate in these Filipino games. They are popular and beloved pastimes among many Filipinos, particularly older generations. Philippine myths continue to play a significant part in the lives of rural Filipinos to this day. Numerous myths circulating throughout the rural areas of the Philippines feature a diverse array of mythological beings. The Filipinos have a variety of mythological creatures they believe in, including Aswang, Manananggal, Kapre, Dwende, Sirena, Syokoy, Engaknto, Sigbin, and Tikbalang. The entities are believed to act as divine providers, and some are viewed as villainous that cause misfortune and troubles to townspeople. The Filipinos' various beliefs in the supernatural are attributed to the old folktales that were told in their childhood or to Filipinos' creative minds and storytelling abilities Diamante2019). The Philippines was once a divided collection of nations, islands, and tribes; each has its monarchs, chieftains, lakans, rajahs, datus, and sultans. This era, however, did not last long, as the invaders' incursion was successful. The oppressor saw the "natives" as inferiors during over 350 years of colonialism, and this attitude of inferiority persists long after these states have become dependent on them. Since then, the Philippines has been on a search to discover its own identity.

In Philippine society, playing games is an integral part of growing up. Some are challenging, some are delicate, some are physical, and some are mentally stimulating. Without a doubt, the accessibility of technology has dramatically impacted the quality of life of many. However, with the advent of technology, the opportunity for the younger generation to genuinely appreciate their rich culture has dwindled. Nowadays, most kids are playing through their mobile gadgets; they are starting to forget the existence of our traditional games. Mobile applications are more valuable and convenient to use than old things used by the old generations(Autriz et al., 2016). This issue could lead to the loss of identity of one's country, as culture plays a vital role in developing a specific community and society. Moreover, one of the essential elements in understanding one's culture is the presence of indigenous and traditional games (Hortelano et al., 2015). The modernization caused the existence of traditional games began to shift due to the existence of technology which developed the game to be modern in the current global era. The advancement of technology makes it easy for children to access the internet and easily enjoy modern games such as online games, video games, etc. The development of the modern era also led to the erosion of traditional art, including traditional games (Wiyono et al., 2020). The reasons why traditional games needed to be preserved are regarding the various noble meanings that are contained in traditional games, such as religious values, educative values, norms, and ethics, which those are. According to Santos et al. (2019), to conserve traditional culture, current, and future researchers must seek a way to discover strategies to preserve cultural heritage in an era where new digital games are becoming increasingly popular.

Over the last decade, Philippine games have become widespread recreational activities in the country. Studies have shown that Philippine games have a tremendous positive impact on players' cultural and overall development. According to Thompson(2016). As a result, Philippine games are becoming less popular, while computer games and other fewer demanding activities are becoming increasingly popular among Filipino youngsters. (Balite & Robles, 2020) extrapolate that Philippine games are vital for cultural preservation and education, yet they appear to be unfamiliar to today's youth. They also recommend that entities should pay closer attention and take action in support of Philippine games in order to preserve the conservation of indigenous Filipino culture. At the end of this, traditional game is not widely played or even unknown to children. This is due to the increasing usage of electronics and online gaming from a young age.

As technology became more and more accessible to the population of all ages came the tremendous rise of video games. Video games are becoming an increasingly central part of everyone's cultural lives, impacting various aspects of everyday life such as our consumption, communities, and identity formation (Muriel & Crawford, 2018). Filipinos nowadays prefer playing inside and playing mobile games and PC games (Elliot, 2020) stated that 74% of the Philippines’ online population play games on mobile, 65% play PC games. According to (Angeline, 2016) playing digital games also offer experience and satisfaction based on interactive communication technologies and immersive gameplay. Immersion was greater with video and written text than with the digital game, although games led to much stronger experiences of embodied presence (Riet et. al, 2018). The motive of this could be attributed to the technological advancement over the recent years. (Deloso, 2020) stated that play has always been part of human learning. The idea of play has been utilized in different mobile and computer applications to provide learning and health promotions. Technologies like gamification and augmented reality increase interactivity as well as attention span among the learners (Marcial, 2021). It’s the reason why people of all ages tend to prefer this medium over that of others. Furthermore, digital gamification in the classroom is a teaching strategy that translates content and delivery into a game using digital technology. According to (Angeles 2020), the top 10 games (Valorant, Genshin Impact, Ragnarok M, Roblox, Wild Rift, Dota 2, LoL, MLBB, PUBG, COD) in the Philippines are all online games. The majority of them fall under the category of aggressive games. With these types of games (Quwaider et al. 2019) stated that it assessed internalizing behavior problems such as anxiety, depression, and over controlled behaviors, and externalizing problem behavior such as aggressive, hyperactivity, noncompliant, and uncontrolled behaviors. Exposure to this violent kind of video game increases their risk of engaging in real-world violence and imitating aggressive or violent behaviors from the video games. Video games are influential and are not troubling, but it is worth exploring the ways in which video games are changing players’ actions, attitudes, and ideals through covert persuasion. Video games have the capacity and potency to transmit and instill prejudicial attitudes in players through covert persuasion, and these attitudes can lead to destructive actions (Zwier, 2019).

Henceforth, most Filipinos develop a colonial mentality, in which their desire for the “western country” takes precedence over the Philippines' own. Consequently, Filipinos began to lose contact with their deeply rooted culture. People neglect the rich heritage of its numerous ethnic groups and, in the process, disregards traditional Filipino games and mythological creatures. As the digital era progressed, certain established traditions, such as traditional games and folklore, began to fade away slowly (Mohamed & Tajuddin, 2019). Playing local games as recreation can lead to enhancement of each contribution towards sustainability of local culture and awareness of ecological goods and services. However, with the current technologies that surround everybody, there is a probability local practices will be left out (Bejerano & Buot, 2018). In accordance to Hidayati (2020) traditional games are inherited from ancestors which are not only used for entertainment, but contain values and messages contained in them.

Given that video games have historically been seen negatively, it is critical to focus attention on the beneficial effects on a person's habit of learning. As has been noted, the proponents see this as a chance to build an educational game that promotes the region's traditional games and mythological creatures. Since video games offer a more pleasurable and immersive experience than other forms of entertainment, the general population prefers the benefit it brings. In their study, Castillo et al. (2019) determined that when mobile applications were utilized to play games, it improved a student's learning. Video games, through their widespread popularity and appeal, transmit meaningful ideas, beliefs, and attitudes via the use of digital worlds, narratives, characters, and play. Not only can video games serve as a form of escapism, but they also provide a variety of ways for users to connect with the social reality – close or far – that pervades individuals. With the help of the digital entertainment industry, people can share their fictional stories about Filipino mythical creatures with more creativity (Quina, 2021). As stated by Ali & Jeu (2018) folklore in the digital form of video games could be used as a digital entertainment instrument to integrate cultural awareness, people's beliefs, and information Undoubtedly, video games can consume the attention of children and adolescents. However, it is vital to assess the extent that video game technology had an impact on childhood education. Since video games can engage children in learning experiences, this has led to the rise of “edutainment” media (Grifith, 2002). Just by watching children, it becomes apparent that they prefer this type of approach to learning. Besides, the younger generation tendency to overlooked traditional games became more apparent over the years as the advancement of digital games progresses. In his study, Ascunscion et. al (2019) they suggest that despite 56.66 % of their participants still playing traditional Filipino games, there is now a thin margin that, if left unchecked, would be worrisome in the coming years. Provided that, to some extent, video games could impact the culture or brand of a nation itself. In her study, Lasausse (2018), identifies the distinctive role of video games in the context of brand image and country representation. As the study explores a link between the current approach of country branding and the ancient idea of mythology and folklore, and its relevance in the image of her Nordic countries, both inside and outside the area, through video games. Therefore, the study focuses on digital games as their function has dramatically improved, other than playing the game as entertainment. However, now the game has become one of the practical tools to convey the message to the public.

# Objectives of the Study

The objective of this game is to achieve the following:

1. To develop a fun, casual, and educational game.
2. To encourage the gamers to play laid-back and educational games instead of aggressive and violent games.
3. To familiarize and inform the players the rich traditional games and mythical creatures of the Philippines.

# Scope and Delimitations

myLahi is a cross-platform (Android/Microsoft Windows) offline casual and educational game. The game's environment is three-dimensional, while the gameplay is two-dimensional. It contains challenges and level stages. In their study, Balite and Robles (2020) infer that Luksong Baka, Langit Lupa, Sipa, Piko, and Patintero were relatively familiar the most amongst their respondents. As a result, the game incorporates three (3) traditional Filipino games: Langit Lupa, Luksong Baka, and Sipa. Additionally, the game included mythical creatures such as shokoy, aswang, tikbalang, manananggal, kapre, and engkanto. The in-game shop will give information on the mythological creatures, allowing gamers to become familiar with them. Traditional Filipino games such as Patintero, Luksong Tinik, Piko, Tagu-taguan, Sungka, Syato, Tumbang Preso, Palo Sebo, Ten-Twenty were excluded in the game. Moreover, other mythical creatures such as tiyanak, batibat, nuno sa punso, and so on would not be part of the game.

# Significance of the Study

As the prevalence of the digital entertainment industry became more apparent and relevant, younger generations began to overlook their own culture and traditions. To older generations, this game allows them to relive their childhood experiences. It will enable more youthful generations to delve into the nuances of the Philippines' rich culture, which can aid the country's development toward establishing its own identity. This study is significant to the following:

**Gamers:** The game helps players by allowing them to engage in an enjoyable and educational game rather than an aggressive game.

**Academic Researchers:** The study improves the researcher's ability to think critically about game development. This work may serve as one of the foundations around which future academics develop a new game that establishes cultural beliefs and traditions. **Generation Alpha:** The study benefits them because this generation grew up in electronic games. It will help them to learn and get familiarize about the rich Traditional Games and Mythical Creatures of the Philippines.

# Conceptual Framework

Diagram

Description automatically generated with low confidence

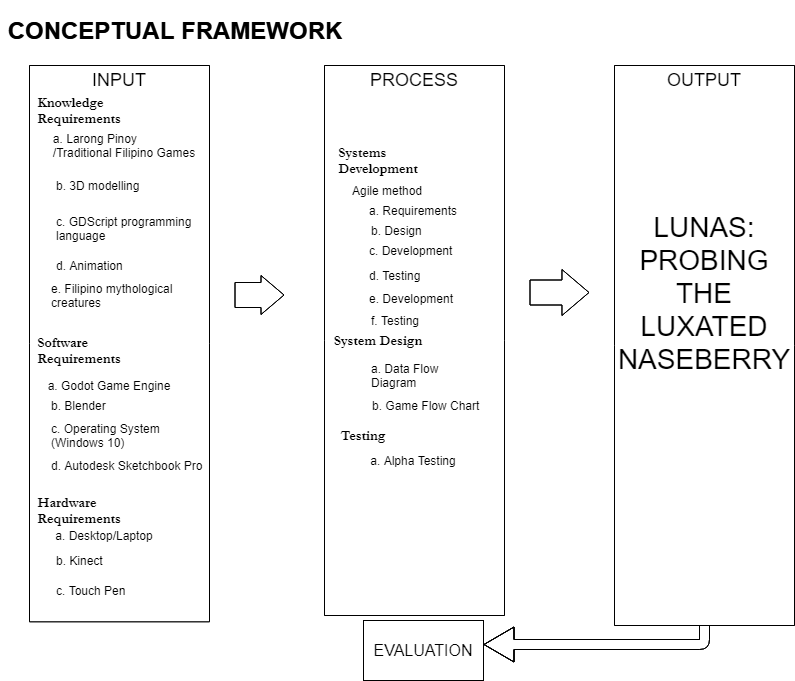


Figure 1. Game Conceptual Framework

Figure 1 shows the conceptual framework. The proponents used the IPO model(Input, Process, Output), a function graph that required processing to transform inputs into outputs. All the provided materials in the input will process through Systems Development, System Design, and Testing. After the processing, a game will be developed.

Definition of Terms

**Agimat:** Filipino term for “Amulet” or “Charm.”

**Gamification:** To boost involvement, incorporate game concepts into non-game contexts such as a website, online community, learning management system, or a company’s intranet.

**Patintero:** A Filipino traditional game that requires agility. In multiple rows and a single column of taggers, the runner’s group needs to cross to the other side and back to the base to gain a score in the game. Patintero is one of the most popular outdoor games played by children in the Philippines.

**Sipa:** A traditional Filipino game that involves knocking a small object (usually pebbles and coins) in mid-air using the player’s lower limbs, arms or elbows.

**Generation Z:** Generation Z, often known as zoomers, is the demographic group that follows the Millennials and comes before Generation Alpha.

**Larong Pinoy:** the Filipino term for the indigenous games played mainly by the youth to promote a healthy lifestyle, friendship among the community and enjoyment of the Filipinos through outdoor activities.

**Casual Game**: a video game intended towards the public, as compared to a hardcore game aimed at hobbyist gamers. They usually have fewer rules, shorter sessions, and need less skill to learn.

## Methodology

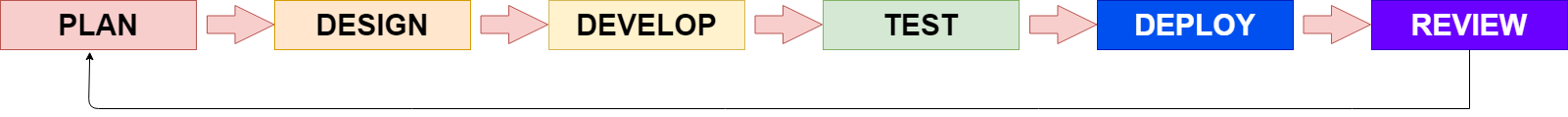
This chapter consists of the methodology used in the proponent's study. The section presents the selected research design, research method, and the research instrument to collect data. Furthermore, this will provide the study's specifications, analysis, statistical treatment of data, and implementation plan.

## Research Design

The proponents utilized the applied research design because it aims to solve actual issues in the real world rather than collecting data for the sake of collecting data. Applied research is a type of study that addresses a specific problem or offers innovative approaches to challenges that influence an individual, a group, or a society. The proponents’ goal of developing a game based on market demands complements the ultimate aim of applied research. This research design focuses on obtaining information about market demands. Identifying solutions to the problem is done by enhancing and developing new products aligned with the objectives of the proponents.

## Systems Development Methodology

The proponents used agile methodology because of its adaptability, flexibility, and versatility to the demands of the game. This method will be iterative rather than document-based (Figure 2). The production process is broken down into small iterations and concentrates on the most vital aspects of the product. Furthermore, this method takes into account the unstable nature and unpredictability of video games and depends on “empirical control process”. More specifically, feedback loops are important when applying this methodology as they provide information to the developers and guide them over what attributes need to be changed or fixed (Archontakis, 2018). It also employs an incremental development strategy to lower the complexity of the game. Continuous planning, testing, integration, and other kinds of progressions are all part of this method. Each task divides into numerous iterations spanning a given amount of time. This method makes it easier for teams to adapt to changes and make necessary adjustments. The proponents use kanban — a popular workflow management method used to implement agile and lean software development methodology that focuses on just-in-time delivery of functionality and managing the amount of work in progress. Kanban helps the proponents keep an eye on the game’s progress and improves the team’s productivity. On a kanban board, required tasks are visually displayed, allowing team members to view the status of each task at any moment.



**Figure 2:** Agile Methodology

### Plan

The proponents gather themselves for a brainstorming session in the title proposal. After brainstorming, they came up with a game featuring Filipino traditional games and Filipino mythical creatures.

### Design

The proponents used Blender and Sketchbook for the characters and items’ visuals. The Godot game engine will be the software used to create the game. The most powerful desktop computer that the proponents own renders the 3D models used in the game. Blender, Godot, and Sketchbook are used to construct the game, which requires computers.

### Develop

The proponents started coding in parallel with the production of the visuals with the help of a kanban board and a Git repository hosted by Github; to keep the development consistent among the proponents. Throughout the development cycle, there is constant brainstorming and discussion of the mechanics.

### Test

The proponents tested the game on a Windows and Android device to check for bugs or errors encountered while playing the game. Furthermore, the proponents ensure that the game is stable and compatible with the previously mentioned device platforms before release.

### Deploy

The proponents will release an alpha version of the game to the respondents that sent their email via pre-survey questionnaire.

### Review

After the respondents have gained access to the game's alpha version, the proponents will send them an invitation to provide feedback.

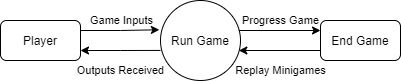
## Required Specification and Analysis

The game is a casual and educational one in which the user can select from a variety of traditional games. After completing a task or objectives, the player will receive a pearl, which functions as a currency. The player would encounter a set of goals and challenges. As they may then learn more about the mythical creatures by purchasing them in-game, players could be familiar with traditional Filipino games and mythological creatures

**Table 1**: Hardware Specifications and Software Specification

|  |  |
| --- | --- |
| Hardware Specification | Software Specification |
| Condenser Microphone | Godot |
| Windows Computers | Blender |
| Graphic Tablet | GitHub |
| Android Phones | Sketchbook |
|  | Audacity |

The proponents used Godot as the game engine, Blender for modeling, and Sketchbook to draw concept arts. The hardware needed to develop the game in Windows computers capable of running the required applications.

Game Data Flow Diagram (Level 0)

**Figure 3.** Game DFD

oIn Figure 2, game inputs are collected from the player to interact with the game, which then the game responds to the player. This cycle continues until the player unlocks all the game's contents and can still replay the traditional games introduced prior.

### Diagram Description automatically generatedGame Flowchart

**Figure 4.** Game Flowchart

As the end-user opens the game, they’ll choose from a play button that directly goes to the traditional games. The other is a shop button; if the player selects the shop button, the game will show the in-game shop, containing various items that entail information about the Filipino mythical creatures. The player must firstly have enough pearls that can be earned playing the traditional games. The traditional games have specific goals and tasks, and if the player completed the game, the player would receive a pearl that serves as a currency to buy items in the in-game shop. See Figure 4 for more details.

### Implementation Plan

Diagram

Description automatically generated

**Figure 5.** Lunas Implementation Plan

Figure 5 above shows how the respondents can access the game. When the game is ready for release, then the game is uploaded to itch.io for download.

Data Gathering Procedure

The respondents selected were from people that play games and use Android smartphones or Windows computers, to which they can access the internet to download the game. In accordance with [DiGirolamo](https://www.researchgate.net/profile/Joel-Digirolamo) (2018), a general rule of thumb is to have 10 times the number of respondents as items a researcher want to factor analyze. Devices that run in Android and Windows are qualified to partake. Regardless of the respondent’s knowledge of Filipino culture, they will still be considered a potential player of the game. Thus, the proponents disseminated the questionnaires via Facebook groups, Messenger group chats, and Discord—a gamer-oriented messaging application—servers that include the proponent’s respondents.

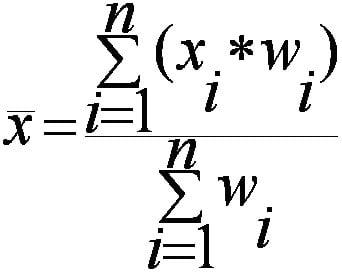
The respondents completed two surveys as part of the study: a pre- and post-survey. A research instrument is a tool used to collect, measure, and evaluate data from research respondents. This study utilized the quantitative method of research through questionnaires. Due to the current pandemic, the questionnaire was distributed online to the proponent's target respondents through Google Forms.

Sampling is a method of choosing individuals or a subset of the population to make statistical inferences and estimate population characteristics. The researchers take advantage of the appropriateness of the purposive sampling technique to the study’s target locale. Purposive sampling is a non-probability sampling—which involves non-random selection—which correlates to the chosen target locale. The approach enables the researcher to extrapolate data necessary to the current state of the study to enhance it further.

## Statistical Analysis

Likert scale is an orderly scale on which respondents select the item that most strongly supports their point of view. The total number of sample size used utilized in the study was ranging from minimum of 140 respondents. As said by [DiGirolamo](https://www.researchgate.net/profile/Joel-Digirolamo) (2018), a general rule of thumb is to have 10 times the number of respondents as items a researcher want to factor analyze. There are a total of 14 questionnaires included in the study, and in order to obtain the best sample size, the proponents adopted the strategy of scaling each item by 10. This approach assesses a person's attitude by determining how they agree or disagree on the given topic or statement.

To assess the feasibility of the game, the proponents employed a four-point Likert Scale for target respondents. The choices range from "Strongly Disagree" to "Strongly Agree." The weighted mean was employed by the researchers to determine the measure of respondent perceptions.

Weighted Mean =

Where:

∑ = summative

Xi = values of attitude

Wi = weight for each value.

Furthermore, the proponents used the percentage formula to interpret results in the survey questionnaire.

P =

Where:

P = percentage

f = frequency or number of respondents

n = total number of respondents

**Table 2**: Evaluation of Likert Scale for Pre-Survey Questionnaires

|  |  |  |
| --- | --- | --- |
| Weight/  Scale | Mean Range | Verbal Interpretation |
| 4 | 3.40 - 4.0 | Always |
| 3 | 2.60 - 3.39 | Frequently |
| 2 | 1.80 - 2.59 | Sometimes |
| 1 | 1.00 - 1.79 | Rarely |

**Table 3**: Evaluation of Likert Scale for the assessment of the game

|  |  |  |
| --- | --- | --- |
| Weight/  Scale | Mean  Range | Verbal  Interpretation |
| 4 | 3.40 - 4.0 | Strongly Agree |
| 3 | 2.60 - 3.39 | Agree |
| 2 | 1.80 - 2.59 | Disagree |
| 1 | 1.00 - 1.79 | Strongly Disagree |

To get an overall assessment of the proposed game's functionality, stability, and accessibility, the following conversion table for calculated mean is used:

**Table 4**: Evaluation of Likert Scale for the assessment of the game

|  |  |  |
| --- | --- | --- |
| Weight/Scale | Mean Range | Verbal Interpretation |
| 4 | 3.40 - 4.0 | Excellent |
| 3 | 2.60 - 3.39 | Good |
| 2 | 1.80 - 2.59 | Fair |
| 1 | 1.00 - 1.79 | Needs Improvement |

# RESULTS AND DISCUSSION

This section contains proponents gathered data and presented and analyzed the data gathered from their selected respondents. The outcome indicates both how the planned approach was established, and which elements of the project need to be addressed in the present manual method. To convey the findings in a methodical and meaningful way, tables and figures are used.

The table below summarizes the results of the preliminary questionnaires completed by the respondents.

|  |  |  |  |
| --- | --- | --- | --- |
| Gender | Number of Respondents  (f) | Total Size of Respondents  (n) | Percentage  (P) |
| Male | 103 | 141 | 73 |
| Female | 38 | 141 | 27 |

**Table 5:** Gender of the Respondents

From the table 5, we can conclude that 103 out of 141 respondents are male which makes it 73% and the rest 38 respondents are female which is 27%. The purpose of this survey is to ascertain the sexual orientation and percentage of target respondents who have played games; nevertheless, the ratio of respondents is reasonable given that females generally do not play as many games as males.

The purpose of this survey is to get the sexuality and the ratio of the target respondents that have play games, as many as there are however quite fair since the females relatively don’t play many games as much as the males.

Findings of the Preliminary Questionnaire No.1

|  |  |  |  |
| --- | --- | --- | --- |
| Device/Platform | Number of Respondents  (f) | Total Size of Respondents  (n) | Percentage  (P) |
| Windows/PC | 6 | 141 | 4.3 |
| Android/  Smartphone | 92 | 141 | 65.2 |
| Both A & B | 43 | 141 | 30.5 |

**Table 6**: What platform/device do you usually use playing video games?

Out of all the 141 respondents, the table 6 shows that 92 of the respondents (65.2%) utilize Android platform and Smartphone device for play video games, Windows platform/PC device with only 4.3% (6 out of 141), and 30.5% of the respondents use both options. Through this finding, the proponents conclude that the market of both Android and Windows is big, so that is why the proponents took advantage of it and the game will be built on both platforms.

Findings of the Preliminary Questionnaire No.2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Always  4 | Frequently  3 | Sometimes  2 | Rarely  1 | Mean Value | Verbal Interpretation |
| 61 | 58 | 21 | 1 | 3.26 | Frequently |

**Table 7:** How often do you play games?

Table 7 As shown in Table 15 and Figure 10, most of the respondents’ *often* delay their tasks. A number of 45 out of 100 respondents answered *often*, 10 respondents answered *always*, 33 respondents answered *sometimes*, 2 respondents answered *rarely*, and 1 respondent answered *never*. Based on the table 9 above, out of the 141 respondents just five respondents replied *always*, two responded *frequently*, 44 answered *sometimes,* and 90 respondents responded *rarely.* With the mean of value of 3, the verbal interpretation for how commonly respondents engage in traditional games is *sometimes*. This statistic solidifies the argument that traditional games are being overlooked. Hence, the proponents decided to develop a video game that features traditional games.

Findings of the Preliminary Questionnaire No.3

|  |  |  |  |
| --- | --- | --- | --- |
| Answer | Number of Respondents  (f) | Total Size of Respondents  (n) | Percentage  (P) |
| Yes | 47 | 141 | 33.3 |
| Somewhat | 94 | 141 | 66.7 |
| No | 0 | 141 | 0.0 |

**Table 8**: Are you aware of the Filipino mythical creatures?

Based on table 8 above, most respondents have a moderate knowledge of the Filipino mythical creatures, with 109 amongst 141 students answering somewhat (70.85 percent), along with 28.6 percent of respondents, yes, and no one respondent responded no. The question was conducted to understand further the familiarity of the respondents with Filipino mythical creatures. Additionally, the finding demonstrates that a significant portion of culture, such as Filipino mythical creatures, is mostly neglected; hence, the proponents chose to incorporate Filipino mythical creatures into the game.

Findings of the Preliminary Questionnaire No.5

Chart, bar chart

Description automatically generated

**Figure 10**: Which of the following mythical creatures are you familiar with?

According to figure 10, approximately more than half of respondents are familiar of mythical creatures such as shokoy (69.5 percent), tikbalang (66.7 percent), kapre (69.5 percent), manananggal (64.5 percent), tik-tik (69.5 percent), duwende (66.5 percent), engkanto (71.6 percent), aswang (59.6 percent), and sirena (58.2 percent), while only 0.7 percent of total respondents responded none. The numbers provide insight into which mythological creatures would be featured in the game.

Findings of the Preliminary Questionnaire No.6:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Always  4 | Frequently  3 | Sometimes  2 | Rarely  1 | Mean/  Value | Verbal Interpretation |
| 5 | 2 | 44 | 90 | 3 | Sometimes |

**Table 9**: How often do you play traditional games?

Based on the table 9 above, out of the 141 respondents just five replied *always*, two responded *frequently*, 44 answered *sometimes,* and 90 respondents responded *rarely* of playing traditional games*.* With the mean of value of 3, the verbal interpretation for how commonly respondents engage in traditional games is *sometimes*. This statistic solidifies the argument that traditional games are being overlooked. Hence, the proponents decided to develop a video game that features traditional games.

Findings of the Preliminary Questionnaire No.7

Chart, bar chart

Description automatically generated

**Figure 12**: Which of the following traditional games have you played?

Based on figure 12, about two traditional games are over the 70th percentile of the survey, namely: langit lupa and tagu-taguan. Meanwhile, the other traditional games like patintero, piko, sipa, luksong baka, and tumbang preso have been played by over the 55th percentile of the respondents. The figure shows the Filipino traditional games are that is prevalent amongst the respondents. By doing so, the proponents acquire insight into popular traditional games and select langit lupa, luksong baka, and sipa to incorporate into the game.

Findings of the Preliminary Questionnaire No.6

|  |  |  |  |
| --- | --- | --- | --- |
| Category | Number of Respondents  (f) | Total Size of Respondents  (n) | Percentage  (P) |
| Casual/  Educational | 54 | 141 | 38.3 |
| Role Playing Games (RPG) | 25 | 141 | 17.7 |
| Multiplayer Online Battle Arena (MOBA) | 43 | 141 | 30.5 |
| First Person Shooting (FPS) | 18 | 141 | 12.8 |
| Real Time Strategy (RTS) | 1 | 141 | 0.7 |

**Table 10:** What kind of games do you usually play?

Based on table 10 above, 38.3 % of the 141 respondents preferred Casual/Education games, 30.5 % played Multiplayer Online Battle Arena, Role Playing Games were picked by 17.7% of the respondents, and just 0.7% for Real-Time Strategy Games. The purpose of this questionnaire is to determine which type of game is the most popular among respondents. With this finding, the proponents extrapolate that a casual/educational game would benefit the proposed game.

Findings of the Preliminary Questionnaire No.7

Chart

Description automatically generated

**Figure 14.** Which of the following games have you already played?

As shown in the figure 14, Mobile Legends and Call of Duty have tremendous lead compared to the other games in the list out of 141 respondents, 78% and 72.2% respectively have already played it, placing the two at the top as the most popular games in the questionnaires. Whereas game such as Dota 2 was played 27.7%, League of Legends only 22%, Genshin Impact with 24.8%, and 21.3% of the respondents played Counter Strike. The questionnaire's purpose is to ascertain the kind of the games that the majority of target respondents prefer. The findings indicate that most respondents enjoy aggressive games, suggesting that the current trend in digital games is impacting traditional Filipino games.

Findings of the Preliminary Questionnaire No.7

|  |  |  |  |
| --- | --- | --- | --- |
| Answer | Number of Respondents  (f) | Total Size of Respondents  (n) | Percentage  (P) |
| Yes | 4 | 141 | 2.8 |
| Somewhat | 83 | 141 | 58.9 |
| No | 54 | 141 | 38.3 |

Table 13: According to the last question, do you think playing those video games allows you to gain valuable knowledge?

From table 13 above, just only 2.8% of the respondents have learned something valuable from the aggressive games mentioned in the previous findings. However, 58.9% have said that they somewhat gain some knowledge while playing these games. At the same time, 38.3% of the total respondents responded that they had not learned valuable playing the games mentioned earlier. This result proves that playing aggressive games could not be reliable when developing a game whose primary goal is to impart the slowly fading traditions of a country.

Game Evaluation

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Questionnaires | Strong  Agree  (4) | Agree  (3) | Disagree  (2) | Strongly Disagree  (1) | x | Verbal Interpretation |
| Functionality | | | | | | |
| The game accurately explains the user's task and goal |  |  |  |  |  |  |
| All games, regardless of their difficulty level, bring satisfaction |  |  |  |  |  |  |
| The game is enjoyable and good. |  |  |  |  |  |  |
| The game helps to familiarize with different Filipino traditional games and mythical creatures. |  |  |  |  |  |  |
| The game provides detailed representation Filipino traditional games and mythical creatures. |  |  |  |  |  |  |
| The game keeps my curiosity and drives me to play more. |  |  |  |  |  |  |
| Grand Mean | | | | |  |  |

Analyze and the table says

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Questionnaires | Strong  Agree  (4) | Agree  (3) | Disagree  (2) | Strongly Disagree  (1) | x | Verbal Interpretation |
| Accessibility/Visual Design | | | | | | |
| The game provides a clear and precise instructions |  |  |  |  |  |  |
| The game is simple to play and has a basic objective. |  |  |  |  |  |  |
| The game is sufficiently visible and quick to navigate. |  |  |  |  |  |  |
| The game is intuitive and user friendly. |  |  |  |  |  |  |
| The game is interactive and entertaining |  |  |  |  |  |  |
| Grand Mean | | | | |  |  |

Analyze and the table says

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Questionnaires | Strongly  Agree  (4) | Agree  (3) | Disagree  (2) | Strongly Disagree  (1) | x | Verbal Interpretation |
| Stability and Performance | | | | | | |
| The game operates great on my smartphone. |  |  |  |  |  |  |
| The game responds quickly and does not lag. |  |  |  |  |  |  |
| The game runs smoothly on my device |  |  |  |  |  |  |
| Grand Mean | | | | |  |  |

# CONCLUSION AND RECCOMENDATIONS

## References

Ali, Mohd Fairu b., and Ng Perng Jeu. 2018. “A Malaysian Folklore Game Design As A Tool Of Culture Preservation And Entertainment: Toyol.” *Advances in Social Science, Education and Humanities Research* 207 (November). https://doi.org/10.2991/reka-18.2018.45.

Angeles, Enzo. 2020. “10 Most Popular Online Games in the Philippines.” Yugatech. https://www.yugatech.com/feature/10-most-popular-online-games-in-the-philippines/#sthash.Dj3alCws.dpbs.

Angeline, Mia. 2016. “GAME AND DIGITAL CULTURE: A STUDY ON HAY DAY GAME.” *HUMANIORA* 7 (January): 22-28.

Asuncion, Joel E., Rahmat P. Booc, Kimberson B. Rafaela, Mae J. Torres, Rina P. Bulawan, Louis C. Jabonero II, and Ian Jay M. Cortuna. n.d. “HE TRADITIONAL FILIPINO GAMES: STATUS CHECK AMONG GENERATION Z.” *ISJ Theoretical & Applied Science* 78 (10): 2019. 10.15863/TAS.

Autriz, Rhon Jherick A., Merwin P. Casitas, Gerome T. Enriquez, and Kristien Noel A. Nocon. 2016. “Larong Pinoy: An Android Game Application.” *International Journal of Computer Science and Information Technology Research* 4, no. 2 (April - June): 127-141. https://www.academia.edu/27356107/Larong\_Pinoy\_An\_Android\_Game\_Application.

Balite, Percival Henry M., and Selwyn C. Robles. 2020. “Philippine Games: On the Contemporary Awareness and Involvement of University Students.” *TALA* 3, no. 1 (June): 47-57. http://talakasaysayan.org/Tala\_Archives/Third\_Volume/1/vol3-no1-art3-Philippine-Games.pdf.

Bejerano, Perla Y., and Merites M. Buot. 2018. “LOCALGAMESINMAONON,LIGAOCITY,BICOLPENINSULA:SYMBOLISMOFCOMMUNITYIDENTITY.” *Journal of Nature Studie* 17 (1): 41-55. https://www.journalofnaturestudies.org/files/JNS17-1/41-55\_Bejerano\_Local%20Games%20Maonon.pdf.

Busico, Eugene C., Larmie S. Feliscuzo, and Elmer A. Maravillas. 2019. *Development of Patintero Game Rules and Strategies for MBots*. https://www.researchgate.net/profile/Larmie-Feliscuzo/publication/336552975\_Development\_of\_Patintero\_Game\_Rules\_and\_Strategies\_for\_MBots\_-\_Final\_Paper\_V3/links/5da58480299bf116fea8df3a/Development-of-Patintero-Game-Rules-and-Strategies-for-MBots-Final-Pape.

Castillo, Reynaldo E., Carl Jayson Cheng, Jasper S. Agustin, and Ma. Christina R. Aragon. 2019. “Development of an Educational Mobile Game Applications for Grade 5 for Knowledge Channel Inc.” *ICISS 2019: Proceedings of the 2019 2nd International Conference on Information Science and System*, (March), 99-104. https://doi.org/10.1145/3322645.3322695.

Deloso, Ryann. 2020. *User Experience of Filipino Older Adults on Serious Games*. N.p.: DEGREE PROGRAMME IN WELFARE TECHNOLOGY.

Elliot, Rhys. 2020. *The Philippines’ Games Market: Data and Insights*. https://newzoo.com/insights/articles/data-and-insights-on-the-philippines-games-market/.

Hidayati, Niswatin Nurul. 2020. “Indonesian Traditional Games: a Way to Implant Character Education on Children and Preserve Indonesian Local Wisdom.” *Istawa: Jurnal Pendidikan Islam* 5 (1): 62-80. 10.24269/ijpi.v5i1.2475.

Hortelano, Ruth A., Johannes Paulus M. Juan, and Darin Jan C. Tindowen. 2015. “INDIGENEOUS GAMES OF THE AGTAS OF PEÑABLANCA, CAGAYAN.” *ACADEMIA: Accelerating the world's research* 2.

Lasausse, Lysiane. 2018. *Norse mythology in video games: part of immanent Nordic regional branding.* N.p.: University of Helsinki. https://core.ac.uk/display/158607525?recSetID=.

Marcial, Dave E., Lawrence dela Peña, Jade Montemayor, and Joy Dy. 2021. “The Design of a Gamified Responsible Use of Social Media.” (March). https://doi.org/10.3389/feduc.2021.635278.

Mohamed, Mawarni, and Puteri Aquila Tajuddin. 2019. “ASPECTS OF WELLNESS IN A TRADITIONAL LEISURE TIME GAME: AN INTEGRATED APPROACH FOR TEACHING INNOVATION.” *International Conference on University Learning and Teaching (InCULT) 2018*, (December). https://ir.uitm.edu.my/id/eprint/29740/.

Muriel, Daniel, and Garry Crawford. 2018. *Video Games As Culture: Considering the Role and Importance of Video Games in Contemporary Society*. 1st Edition ed. N.p.: Routledge. dx.doi.org/10.4324/9781315622743.

Quina, Francis Paolo. 2021. “SOUTHEAST ASIAN REVIEW OF ENGLISH (2021).” *Making Space for Myth: Worldbuilding and Interconnected Narratives in Mythspace* Vol.58 (June). https://doi.org/10.22452/sare.vol58no1.4.

Quwaider, Muhannad, Abdullah labed, and Rehab Duwairi. 2019. *The Impact of Video Games on the Players Behaviors: A Survey*. N.p.: ELSEVIER B.V.

Riet, Jonathan van ’t, Annika C. Meeuwes, Laura van der Voorden, and Jeroen Jansz. 2018. “Investigating the Effects of a Persuasive DigitalGame on Immersion, Identification, andWillingness to Help.” (June). 10.1080/01973533.2018.1459301.

Santos, Joseline M., Ronilo P. Antonio, Bryan Carlo T. Capulong, Deric Raphael P. Santos, Effie Mari R. Magugat, Jed Hans M. Leabres, and Maron Jherwyn B. Ortega. 2019. “USING MOBILE GAMING TO PROMOTE STUDENTS’ CONCEPTUAL UNDERSTANDING OF TRADITIONAL FILIPINO GAMES.” *SSRN Electronic Journal*, (January), 616.

Thompson, Peter. 2016. “Video Games as Mythology.” HONEY BADGER BRIGADE. https://honeybadgerbrigade.com/2016/06/22/video-games-as-mythology/.

Wiyono, K., I. Ismet, and S. Saparini. 2020. “Development of interactive multimedia for learning physics based on traditional games.” *Development of interactive multimedia for learning physics based on traditional games*. 10.1088/1742-6596/1480/1/012074.

Zwier, Steven P. 2019. “VIDEO GAMES, INFLUENCE,ANDIDENTIFICATION: THE PERPETUATION OF CULTURE THROUGH DIGITAL WORLDS.” *Doctoral dissertation, Duquesne University*, (May). https://core.ac.uk/reader/234050867.

Agile development in the video game industry Examining the effects of iteration and methods of limiting it

## APPENDICES

**Appendix A:** Pre-Survey Questionnaire

A close-up of a coin

Description automatically generated with medium confidenceA picture containing text, sauce, clipart

Description automatically generated

DON HONORIO VENTURA STATE UNIVERSITY

Bacolor, Pampanga

College of Computing Studies

This survey intended to obtain information about the familiarity of the selected respondents to the traditional games and mythical creatures of the Philippines. The information gathered will be treated with the utmost confidentiality. The proponents would be extremely grateful if you could take a few minutes to respond to the following questions. Your assistance in this study will be much appreciated and will remain completely confidential.

Email Address:

Name (Optional):

Gender:

1. What platform/device do you usually use playing video games?

* Windows/PC
* Android/Smartphone
* Both A & B
* Others

1. How often do you play games?

* Always
* Sometimes
* Rarely
* Never

1. What platform/device do you usually use playing video games?

* Windows/PC
* Android/Smartphone
* Both A & B
* Others

1. Are you aware of the Filipino mythical creatures?

* Yes
* Somewhat
* No

1. Which of the following mythical creatures are you familiar with?

* Santelmo
* Shokoy
* Tikbalang
* Kapre
* Manananggal
* Tik-tik
* Duwende
* Engkanto
* Aswang
* Sirena
* Other
* None

1. How often do you play traditional games??

* Rarely
* Sometimes
* Always
* Never

1. Which of the following traditional games have you played?

* Patintero
* Jack en Poy
* Langit Lupa
* Shatong/Syato
* Jack en Poy
* Palo Sebo
* Piko
* Other
* None

1. What kind of game do you usually play?

* Casual
* RPG/MMORPG
* FPS
* MOBA
* First Person Shooting Games
* Other

1. Which of the mentioned games have you already played??

* MLBB
* COD
* Wild Rift
* Dota 2
* Genshin Impact
* LoL
* CS:GO
* Forrtnite
* Apex Legends
* PUBG
* Others

1. According to the last question, do you think playing those video games allows you to gain valuable knowledge?

ο Yes ο Somewhat ο No

**Appendix B:** Game Evaluation

A close-up of a coin

Description automatically generated with medium confidenceA picture containing text, sauce, clipart

Description automatically generated

DON HONORIO VENTURA STATE UNIVERSITY

Bacolor, Pampanga

College of Computing Studies

This survey is intended for the development of “myLahi: Filipino Traditions and Mythical Creatures Digital Games”.The survey's findings will aid in determining future enhancements to the proposed game. The information obtained will be kept strictly confidential. The proponents would be quite grateful if you could spend a few moments to answer to the following questions. Your assistance in this study will be much appreciated and will remain completely confidential.

Email Address:

Name (Optional):

Gender:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Functionality | Strongly Agree | Agree | Disagree | Strongly Disagree |
| The game accurately explains the user's task and goal. |  |  |  |  |
| All games, regardless of their difficulty level, bring satisfaction |  |  |  |  |
| The game is enjoyable and  good. |  |  |  |  |
| The game helps to familiarize with different Filipino traditional games and mythical creatures. |  |  |  |  |
| The game provides detailed representation Filipino traditional games and mythical creatures. |  |  |  |  |
| The game keeps my curiosity and drives me to play more. |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Accessibility and Visual Design | Strongly Agree | Agree | Disagree | Strongly Disagree |
| The game provides a clear and precise instructions |  |  |  |  |
| The game is simple to play and has a basic objective. |  |  |  |  |
| The game is sufficiently visible and quick to navigate. |  |  |  |  |
| The game is intuitive and user  friendly. |  |  |  |  |
| The game is interactive and entertaining |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Accessibility and  Visual Design | Strongly Agree  (4) | Agree  (3) | Disagree  (2) | Strongly Disagree  (1) |
| The game operates great on my smartphone. |  |  |  |  |
| The game responds quickly and does not lag. |  |  |  |  |
| The game runs smoothly on my  device. |  |  |  |  |