

Game Design for Eysenck Method Personality Test Using Unity

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Abstract— In this day and age, there continues to be a growth in technology that makes things easier and more effective. In addition, the distance that was originally a major problem for connecting, talking, exchanging thoughts or data with others disappeared because of the globalization that occurred. The growth of science and technology is basically a growth that aims to achieve and fulfill human aspirations and needs in using resources. Therefore, the idea arose to design a simple personality test game.

The purpose of this research is to design a windows10 operating system-based game into the "Personality Test" game. Questions from the Eysenck test will be made into the game. This game will be implemented into the game using unity. The method used in research is to collect data by interviewing users to get data quickly.

Keywords— eysenck, test, personality, game.

I. INTRODUCTION

The rapid growth of technology has made many things easier and more effective. One of them is in carrying out ties with other people. In this globalization era, the distance that was originally the main problem for connecting, talking, and exchanging data with others is now no longer intertwined. This is because there are computer networks and the internet that have been all over the world so that humans can talk or exchange data quickly and with a very easy process. Communication or data

exchange can be tried through smartphones, PCs, or other gadgets [1].

The growth of science and technology basically aims to achieve and fulfil human aspirations and needs in using available human resources effectively, for example, the industrial world and this old technology. Today's technological growth has successfully combined data and communication processes[2]. Personality is the overall pattern of actual and potential behaviour of individuals determined by heredity and environment. Introverted and extroverted personalities elicit different responses in dealing with situations or environments [3].

An extrovert is known as someone who is influenced by the objective world, lively, enthusiastic, talkative, free from worries, not easily embarrassed, not awkward, many friends, friendly, quickly familiar, easily accustomed to various situations, frank, impulsive or arbitrary, active, and optimistic [4].

The introverted personality category is a person who always focuses his thoughts on himself, his behaviour is determined by what goes on in his person, according to him the outside world is meaningless for determining his behaviour, so it is not uncommon for people with this category to have no ties to the environment around them [5].

Character psychology is a branch of psychology that studies the differences between people in their attitudes, thoughts, and emotions. Character tests are one of the tools used in character psychology to measure a person's character traits. One character test that is quite popular and often

used in research is the Eysenck character test. The Eysenck character test was developed by Hans Eysenck, a British psychologist popular for his contributions to the field of character psychology. The test was first introduced in the 1950s and is still used until today [6].

Honesty is something that means a lot to everyone and we must get used to instilling and practicing it in our daily lives. Honesty is necessary in many aspects of life. Honesty is a fundamental life value that must be taught to children from a young age. Directing children to say, act and behave honestly will be a useful learning for later life. There is a saying that honesty is the currency of any country. This kind of saying should be introduced to children from an early age. Because the cultivation of knowledge from an early age will usually tend to be more easily absorbed by children and instilled until they are old so that it becomes a good craft [7].

Nowadays many people like to play games. Games are structured or semi-structured activities that generally aim for entertainment and can sometimes be used as a learning facility. The characteristics of games that are fun, motivating, addictive and collaborative make this activity favoured by many people [16]. Creating games can be done in many ways, such as games that are already known by many people in the world. That way, combining games with personality tests or personality tests through the Eysenck method is not a difficult thing.

II. LITERATURE REVIEW

2.1 Personality

Personality comes from the Greek “per” and “sonare” which means mask but also comes from the word personae which means a showman, a player who uses the mask. In conclusion, the word persona proves the interpretation of the quality of the nature or character played in the play [12].

2.2 Game

A game is something used for play that is played within the confines of rules. According to a scientist named Henry, the format of a game can be purely one type or can be a mixture of several other types [8].

2.3 Unity

Unity is an application used to develop multiplatform games that is designed to be easy to use. Unity is a nice and full blend of professional applications. The editor in Unity is made with a simple user interface. According to Horachek, unity is an application used to develop multiplatform games that are designed to be easy to use. Unity is full of integration with professional applications. The editor in Unity is made with a simple user interface [8].

2.4 The C# Programming Language

C# read C Sharp is a programming language developed by Microsoft as part of the .NET Framework initiative. The programming language was created based on the C++ language which has been complemented by aspects and other programming languages [11].

2.5 Waterfall Method

The Waterfall method is a procedure that carries out a systematic and sequential approach starting from the level of system requirements then leading to analysis, design, coding, testing or verification, and maintenance sessions. Waterfall or waterfall is a model developed for software development, making software. This model grows systematically from one session to another in a waterfall-like fashion [15].

III. RESEARCH METHODOLOGY

3.1 Source of Data

1. Primary Data Source

Primary data sources were taken from interviews with 15 friends and relatives who tried playing the Eysenck test game.

2. Secondary Data Source

Secondary data sources are obtained and taken from journals and other references related to the development of this game.

3.2 Data Collection Technique

1. User Interviews

This technique was carried out by inviting a total of 15 (fifteen) people to try out the game and answer questions from researchers.

2. Literature Study

Data collection techniques through written sources of information such as scientific journals, online journals, and written works.

3.3 Testing

1. Game Tests

In testing this game, to get valid data, the method used is to invite people to try the game that has been made and questions through interviews.

2. Summary

To get accurate and valid data, you must follow the stages of testing. So that the data generated can be used as well as possible and also the results of the development can be in accordance with the objectives to be achieved.

3.4 Methods Used

The method used in this research is the waterfall method. This method must go through several stages and has a systematic nature, in each stage must be completed sequentially in order to proceed to the next stage.

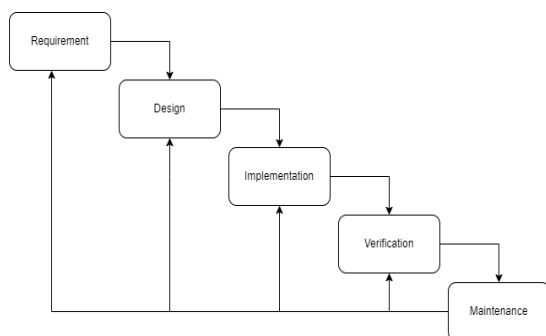


Figure 3.1 The Waterfall Method

IV. HASIL PENELITIAN DAN PEMBAHASAN

4.1 Game Designing

The creation of this game uses a board game model to make the game, and uses a 2D perspective, and uses a quiz system. In this game, the player will answer the quiz after the Player in the game stops.

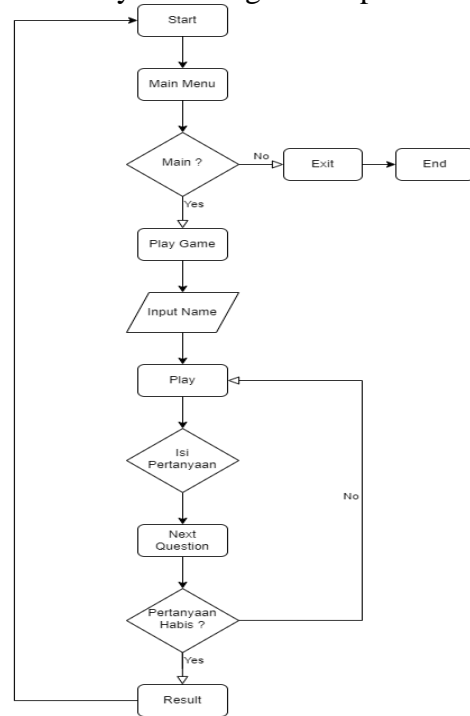


Figure 4.1 Game Flowchart

4.2 Implementation

The main purpose of making the game is to find out the honesty and personality of the player through the test. To achieve the desired goal, it is necessary to carry out a design process that must include the concept of Hans Eysenck's theory. In the development of the game in question, the developer will take the basic concept system as well as the implementation of the test given according to the Eysenck method.

1. Pre-production

In the Pre-production process, the game developer collects data and ideas, and models the product. At this point of the problem, the developer must decide how to make the final form of the product to be created. This pre-production process is divided into two things that need to be

considered. The first is the prototype or initial design and the second is the final design.

2. Prototype

During the initial design or prototype period, the game will undergo many changes, from the initial board game type where each number is a quiz question, to a quiz board game where each stop is given five questions in stages. The creation of this prototype was inspired by the snakes and ladders game system.

3. Prototype



Figure 4.2 Game Prototype

This game prototype image is a game based on snakes and ladders without any obstacles and shortcuts to the finish. In Figure 4.2 to randomize the dice is also only a number that will appear when the player starts the game by pressing the space button.

4. Final Design

In the final design or final of the game is when the player runs the game. Players pressing the space button will get a randomize number or random numbers according to what is available on the dice. After the random dice number appears, a question will appear in accordance with the sequence of questions from Hans Eysenck's theory.



Figure 4.3 Finish Scene

In Figure 4.3 is the result of player data that has filled in all the questions available during the game and completed the game to the finish line. The data is taken from the player filling in the name when starting the game.

5. Artificial Implementation

The implementation of making the game will be adjusted to the previous explanation. There are also several points that need to be considered such as tutorials, gameplay, and conditions for completing the game or game.

4.3 Collecting data through interviews

To prove that the Test Personality game through the Eysenck method is an interesting game, testing and data collection will be carried out on players. The following are questions and answers from testing and data collection.

1. Does playing the "Test Personality" game provide a new experience in taking psychological tests? Give a reason! (Performance Expectancy)

The conclusion for question 1 is that users feel a new experience in taking psychological tests after trying the "Test Personality" game.

2. Does playing the "Test Personality" game provide variety in taking a regular psychological test? Give a reason! (Performance Expectancy)

The conclusion for question 2 is that users feel a new variety in taking psychological tests after trying "Test Personality".

3. Is the game “Test Personality” easy to play? (Effort Expectancy)

The conclusion for question 3 is that users find it easy to play “Test Personality”.

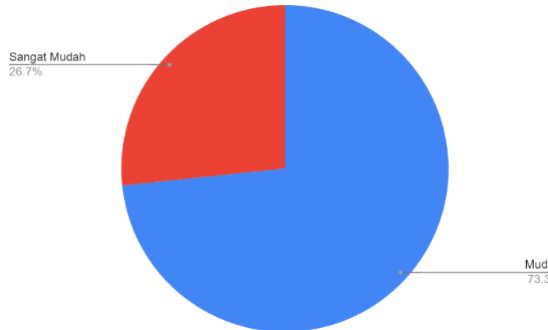


Figure 4.4 Is the “Test Personality” game easy to play?

4. Was the “Test Personality” game easy to complete? (Effort Expectancy)

The conclusion for question 4 is that it is easy for players to complete the "Test Personality" game.

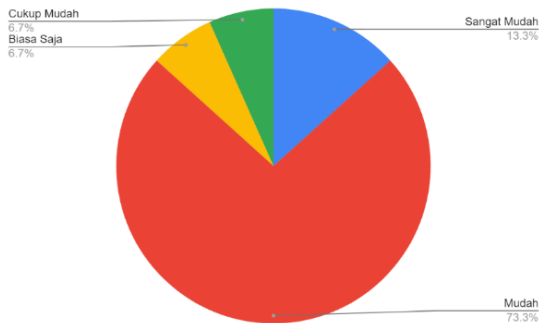


Figure 4.5 Is the “Test Personality” game easy to complete?

5. If you had access to the “Test Personality” game, would you try it again? Give a reason! (Behavioural Intention)

The conclusion for question 5 is that the average player will play again when they get access to the game “Test Personality”.

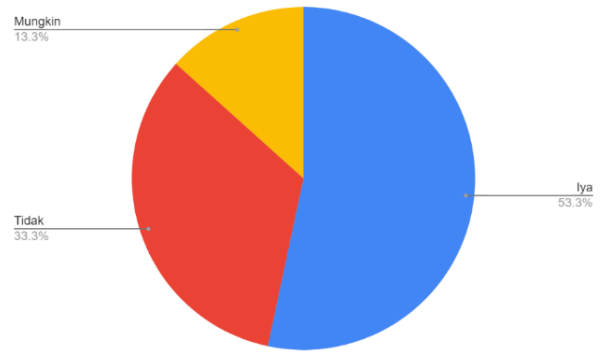


Figure 4.6 If you had access to the “Test Personality” game, would you try it again?

6. If you had access to the "Personality Test" game, would you play this game as a test tool? Give Reasons! (Behavioural Intention)

The conclusion from question 6 is that players still want to play the “Test Personality” game as a means of testing.

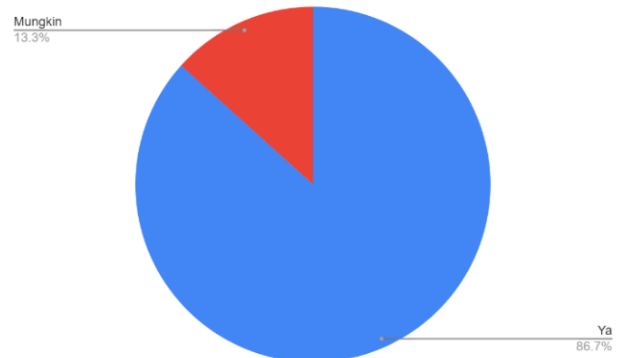


Figure 4.7 If you had access to the “Test Personality” game, would you play it as a test tool?

4.4 User's personality data results

Among the 15 (fifteen) people interviewed, players who played the “Test Personality” game have concluded that users have a normal personality.

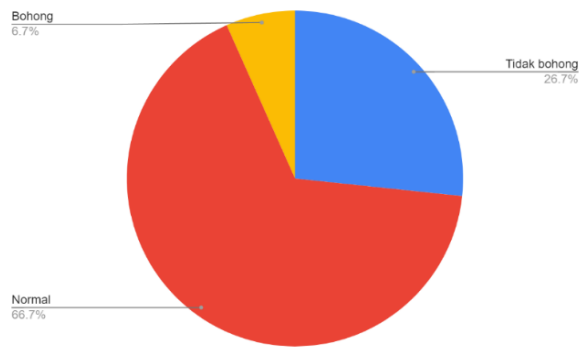


Figure 4.8 User response during the interview

4.5 User Data Summary

From the overall response of users who have tried to play “Test Personality”, it can be concluded that the “Test Personality” game provides a new experience (PE). Users also find it easy to play and complete the “Test Personality” game (EE). Because of these two things, users plan to continue playing the “Test Personality” game (BI).

V. CONCLUSIONS

Based on the results of the development and research conclusions, the following conclusions can be drawn:

1. The “Test Personality” game is a game that combines a board game with questions about personality. This game also uses a computer-based device with the Windows 10 operating system.
2. In the process of making a test game based on the Eysenck method, it requires a data source of 57 (fifty-seven) questions that lead to the personality and honesty of the player. That way players can find out how their personality and honesty are when they have tried the “Test Personality” game. This game implements the questions that have been given by Eysenck and made into a game so that the Eysenck method personality test becomes interesting.
3. The “Test Personality” game can provide a varied experience and is proven by the results of data collection to a number of users or players who have played the “Test Personality”

game. In addition, “Test Personality” plans to be played by users in the future if it has new features or when it wants to know the user's personality in the future. And will also use the “Test Personality” game to test the personality of relatives or other people as evidenced by the results of user interview data.

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