

**SPREADING AWARENESS ON ANXIETY DISORDER THROUGH NARRATIVE  
GAMEPLAY**



UNIVERSITI TEKNIKAL MALAYSIA MELAKA



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SPREADING AWARENESS ON ANXIETY DISORDER THROUGH NARRATIVE  
GAMEPLAY

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This report is submitted in partial fulfillment of the requirements for the  
Bachelor of Technology Information (Game Technology) With Honors



FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2023

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I hereby declare that this project report entitled  
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I hereby declare that I have read this project report and found  
this project report is sufficient in term of the scope and quality for the award of  
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## DEDICATION

This final project is dedicated to my supporting parents and my lovely friends. Throughout the journey of creating this project, I had received much support from them which had motivated me to complete this work . To my parents, I thank you for always be there for me during my ups and downs. I would like to express my gratitude towards my seniors who have shared their experiences and ideas with me to improve and sharpen my work. Their efforts and words of encouragements will always be appreciated regardless. Without all of these support from my friends and family, I wouldn't be able to finish this project by myself which I am grateful about.



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## ABSTRACT

This project is a first-person 3D narrative game that shows the experience of a student that has anxiety disorder. The problem that provided inspiration to develop such game is the lack of existing games that is on the market that perfectly depicts the feel and experience of anxiety disorder. Other than that, mental issues such as anxiety disorders in university students are not being acknowledged or payed attention to by people that surrounds them in their daily life. The aim of this project is to allow the mass-popular understand the roots of causing anxiety disorder and through the game they can identify the symptoms of anxiety disorder in an early stage and provide help to their friends or loved ones. There are three objectives that this project is trying to achieve, the first is to study the implementation of anxiety disorder into games through narration. The second objective is to develop a game about anxiety disorder in university students to increase the awareness of students. The last objective is to analyze the usability of a game in terms of spreading awareness and convey messages about anxiety to public. The expert review shows that the game gives out an experience of anxious and immersive which has achieved the initial goal of this project. The system usability survey also shows that 52% of the respondents agree that the game is easy to understand and 68% for various functions were well integrated into the game. Based on these result, a game about anxiety disorder is successfully developed to raise awareness on anxiety disorder.

## ABSTRAK

Projek ini adalah permainan naratif 3D first-person yang menunjukkan pengalaman seorang pelajar universiti yang menghidap Gangguan Kebimbangan. Masalah-masalah yang memberi inspirasi untuk mengembangkan permainan video ini adalah kekurangannya permainan video yang sedia ada di pasaran yang menggambarkan dengan sempurna perasaan dan pengalaman mengenai Gangguan Kebimbangan. Selain itu, isu mental seperti Gangguan Kebimbangan dalam kalangan pelajar universiti tidak diberi pengiktirafan atau diprehatikan oleh orang sekeliling mereka. Matlamat projek ini adalah untuk memberi masyarakat umum memahami punca Gnagguan Kebimbangan dan melalui permainan ini, mereka dapat mengenal pasti gejala-gejala Gangguan Kebimbangan pada peringkat awal dan memberikan bantuan kepada rakan-rakan atau keluarga mereka. Terdapat tiga objektif yang kena dicapai oleh projek ini, yang pertama adalah mengkaji pelaksanaan anxiety disorder dalam permainan video naratif. Objektif kedua adalah mengembangkan permainan video mengenai anxiety disorder dalam kalangan pelajar universiti untuk meningkatkan kesedaran dalam kalangan pelajar. Objektif terakhir adalah menganalisis keberkesanan permainan video dalam menyebarkan kesedaran dan menyampaikan mesej mengenai Gangguan Kebimbangan kepada orang awam. Kajian pakar menunjukkan bahawa permainan ini memberikan pengalaman yang penuh dengan kegelisahan dan penglibatan, dengan kajian tersebut matlamat awal projek ini telah dicapai. Survei kebolehgunaan sistem juga menunjukkan bahawa 52% responden bersetuju bahawa permainan ini mudah difahami dan 68% untuk pelbagai fungsi telah terintegrasi dengan baik dalam permainan. Berdasarkan hasil ini, permainan mengenai Gangguan Kebimbangan berjaya dibangunkan untuk meningkatkan kesedaran tentang Gangguan Kebimbangan.



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## CHAPTER 1 : INTRODUCTION

### 1.1. Project Background

Anxiety Disorder is a mental health issue that existed in our society for a very long time. In a report shown by Relate Malaysia , there is a estimated number of 7 million Malaysians that is suffering from Anxiety Disorder (Relate Malaysia, 2015) and the number continues to grow. The reason that this disorder is increasing among Malaysians and none is properly treated because anxiety disorder is not a very well known mental disorder to the mass popular. Making a game that shows how an anxiety disorder patient behave would help the player understand more about them.

The goal of this game is to let players experience how an anxiety disorder patient goes through every day through narrative to allow the players feel and identify if they or people around them are showing symptoms of anxiety disorder. Through narrative gameplay players can understand about the patient and relate with the character.

For this project , Unreal engine 5 will be used to create this as it has the perfect tools and functions that is need to create a narrative game. Unreal Engine enables game developers and creators across industries to realize next-generation real-time 3D content and experiences with greater freedom, fidelity, and flexibility than ever before (Unreal Engine, 2023).Through this game players could understand the daily struggles of an anxiety disorder student and thus spreading awareness for anxiety disorder so that they would have more empathy and tolerance for these students.

## 1.2. Problem Statement

Mental health issues are not a very popular topic in Malaysia currently due to less exposure to these kind of issues and there is not much games in the market that depicts Anxiety disorder really well. Anxiety disorders are common mental health problems that affect many people (Department of Health & Human Services, 2023). Anxiety disorder in students are not being acknowledge or paid attention. Existing games that is in the market often fails to capture the challenges and experience faced by university students, limiting their use as educational tools and sources of support. Need for comprehensive evaluation of game usability in raising awareness: while previous studies have explored the impact of games on mental health awareness, there is a lack of games specifically focused on anxiety disorders. The lack of empirical analysis on the effectiveness of anxiety games: despite the growing number of games addressing anxiety disorders, there is an absence of empirical studies examining their effectiveness.

## 1.3. Objectives

The objectives of this research are:

- i. To study the implementation of anxiety disorder into games through narration gameplay
- ii. To develop a game about anxiety disorder in university students
- iii. To analyze the usability of a game in terms of spreading awareness and convey messages about anxiety

## 1.4. Goals and Genre

“Dread” is a 3D first person role playing narrative game that would be played on the PC platform. The genre of the game is role play and narrative focused game. The goal of this game to to interact with the objects in the game to learn about the story and find the key to exit the house. This game is made because there is a lack of

awareness of people about anxiety disorder and there is less games that is about anxiety disorder. Through this game, players would be able to play as a student that has anxiety disorder and have to achieve objectives while experiencing the symptoms of anxiety disorder. Through out the game players will explore and uncover stories on the cause of the character's anxiety disorder and this game would be able to spread awareness on how and why mental disorders like this could happen. The target audience for this game are young adults around the age from 18 to 25 years old.

### **1.5. Game Features**

This game mainly focuses on interacting with objects and triggering dialog to further understand the narrative of the game . The game has a stress bar that represents the level of stress that the character is facing and every item will either contribute or decrease the stress bar depending on the nature of the item , if it is a stimulant for triggering anxiety it will increase the stress bar whereas items that sooth the character will decrease the stress bar. As for the stress bar , different percentage on the health bar will trigger different effects such as heavy breathing sounds and blurriness , these effects are the direct implementation of an anxiety disorder patient having his panic attack. The game is planned to have a 10 min gameplay time where as the play time will be decided by how many things the player decides to interact with.

### **1.6. Conclusion**

In conclusion, this chapter summarizes the objectives, game background and game technology used to create the game. Each element is explained in detail. In the next chapter, Chapter 2, the Literature Review and Methodology that will be used in the project will be explained in detail.

## **CHAPTER 2 : LITERATURE REVIEWS AND PROJECT METHODOLOGY**

### **2.1 Introduction**

This chapter will concentrate on conducting a literature review. The game genre will be thoroughly covered, as well as the project process. Existing games will be discussed, and the game being produced for this project will be compared to them. A discussion of earlier research or outcomes will also be included in this chapter.

### **2.2 Genre**

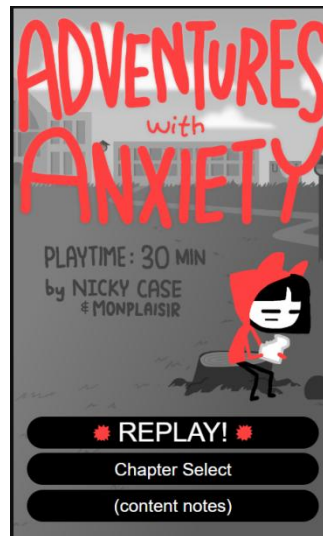
The genre of this game is a combination of narrative and first person role-playing. Narrative game focuses on the story element in the game and allows player to understand the story through gameplay. Role playing game is where the player controls the character in game and experience the game through the characters eyes.

### **2.3 Existing Game**

#### **Adventure with Anxiety**

Adventures with Anxiety is a 2019 short interactive story by Nicky Case based on their own personal experience with anxiety disorders (Video Game/Adventures With Anxiety, 2019). The story is about a person and their anxiety, which takes the form of a big red wolf. The player doesn't take the role of the human; they play as the anxiety, which just thinks of itself as a guard dog, trying to warn their master of possible dangers. The player can choose different dialog in the game to achieve different endings of the game going from dealing with the wolf which is the anxiety or totally ignore their anxiety and thus never solving the problem. The

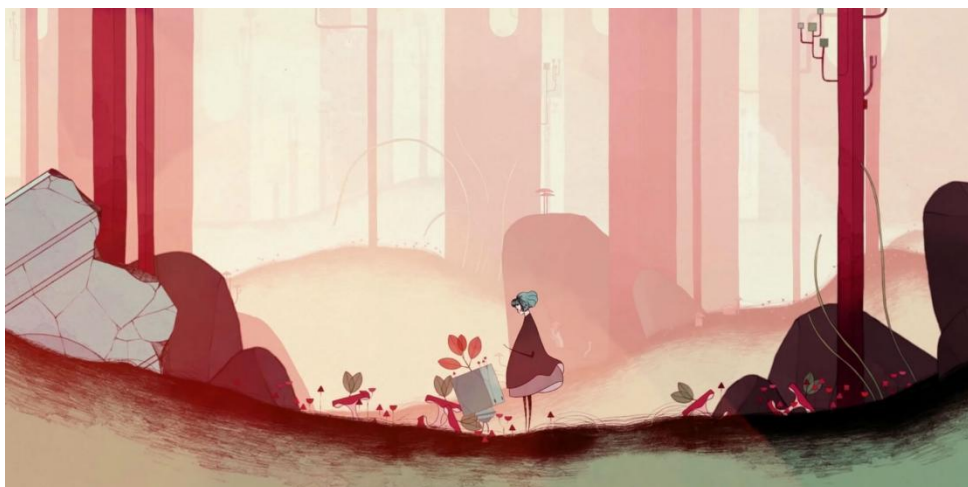
game is shown in figure 2.1.



**Figure 2.1: Adventures with Anxiety**

## Gris

Gris is a 2018 puzzle platform-adventure game that follows a young woman named Gris who has just lost an important person in her life. The game allows you to experience the grief and depression Gris experiences. Because of this loss, Gris has lost her voice to sing, so she must go on a journey to regain her ability to sing again. The game is made in a 2D style platform game and the art in game is made in watercolour style giving it a melancholic feel to the game. Players would have to move from map to map to solve puzzles and unlock story or secrets through out their way. The game is shown in figure 2.2.



**Figure 2.2: Gris**

### **Hellblade: Senua's Sacrifice**

Hellblade: Senua's Sacrifice is a 2017 action-adventure game that follows a young woman named Senua who is a Norse warrior that is trying to save the soul of her dead lover by defeating the goddess Hela. The game allows players to explore and fight enemies to proceed with the story of the game. Through out the game players will encounter hallucinations and voices that shows that Senua is affected by a mental illness which is schizophrenia and depression. These illness are caused because of abusive parents and the trauma of losing a loved one. The game is shown in figure 2.3.



**Figure 2.3: Hellbalde: Senua's Sacrifice**

### 2.3.1 Comparison of Existing Game

Adventures with Anxiety is a 2D narrative game that players can play as Wolf, the representation of anxiety to make decision for the Human through choosing different dialog and through these dialog players can understand how a anxiety disorder patient think and act and by choosing different choices there will be different consequences that happen. The game features rely heavily on dialog reading and clever decision making.

Gris is a 2D puzzle platform-adventure game that allows players to explore and figure puzzle to proceed with the game. Story is well hidden within the game and through every puzzle players will understand more about Gris's suffering and try to resolve it in the process. The game features are heavily focused on puzzle solving.

Hellblade: Senua's Sacrifice is a action-adventure game that allows players to explore and combat with enemies to progress with the game. The story of the game is linear, players just has to follow the set path to finish the game and the depictions of mental illness is shown in the form of hallucinations and phantom voices talking to the main character. The game features are heavily focused on combat and map exploration.

The game "Dread" is a 3D first person role-playing narrative game that focuses on exploring and understanding the story of the game through interacting with different objects that might or might not increase the characters stress level . While interacting with objects , players have to find the main objective that will trigger the mission to leave the house which is the winning condition of the game.

The similarities of these games are they all are games about mental disorder shown to players in various different form . They all share the same idea and core mechanic of the game which is experiencing or understanding the discomfort and struggles of mental illness patients . Representing a mental health issue in the correct way – that is, empathetic and accurate – has an enormous power to raise awareness, reduce stigma, and to encourage vulnerable people to seek help (*Mental Health Representation in Games*, 2020). Table 2.1 shows the comparison table for both games.