Faculty of Cognitive Sciences and Human Development

THE IMPACT OF ONLINE GAMING ON ANXIETY AND

STRESS AMONG UNIMAS STUDENTS

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Bachelor of Psychology (Honours)

2022

UNIVERSITI MALAYSIA SARAWAK

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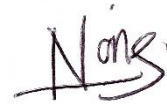
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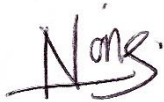I declare this Project/Thesis is classified as (Please tick (√)):

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THE IMPACT OF ONLINE GAMING ON ANXIETY AND STRESS AMONG UNIMAS STUDENTS

NORISMADIANA BINTI MAHARI

This project is submitted
in partial fulfilment of the requirements for a
Bachelor of Psychology with Honours

Faculty of Cognitive Sciences and Human Development
UNIVERSITI MALAYSIA SARAWAK
(2022)

The project entitled **'The Impact of Online Gaming on Anxiety and Stress among UNIMAS Students'** was prepared by **Norismadiana Binti Mahari, 72480,** and submitted to the Faculty of Cognitive Sciences and Human Development in partial fulfillment of the requirements for a Bachelor of Psychology with Honours

Received for examination by:

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Grade
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Table of Contents

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

This study aimed to determine the impact of online gaming on the anxiety and stress of Universiti Malaysia Sarawak (UNIMAS) students. The quantitative survey method was used, and the survey questionnaires were distributed to a sample of university students in UNIMAS, Kota Samarahan, Sarawak. There were a total of 40 answered questionnaires collected. The data was analyzed using version 26.0 of the Statistical Package for Social Sciences (SPSS). Based on the reliability analysis, the instruments used in this study have been proven to be reliable. By using the Independent t-test, it indicates that there is no significant difference in the anxiety level in terms of the gender of online game users, and there is no significant difference in the stress level in terms of the gender of online game users. Besides, by using the Spearman Correlation, it indicates that there is no significant relationship between the online game usage and their anxiety level, and there is also no significant relationship between the online game usage and their stress level. Apart from that, the findings implied that the anxiety and stress levels are similar for both genders, and the online game usage does not affect UNIMAS students' anxiety and stress levels. Future researchers should conduct similar research with a larger number of samples, include respondents from other universities, and use both quantitative and qualitative methods to improve this study.

Keywords: Online game usage, anxiety, stress

ABSTRAK

Kajian ini bertujuan untuk menentukan kesan permainan atas talian terhadap kegelisahan dan stres pelajar Universiti Malaysia Sarawak (UNIMAS). Kaedah kaji selidik secara kuantitatif telah digunakan, dan borang soal selidik telah diedarkan kepada sampel pelajar universiti di UNIMAS, Kota Samarahan, Sarawak. Terdapat sejumlah 40 responden yang menjawab. Data tersebut dianalisis menggunakan versi 26.0 Pakej Statistik untuk Sains Sosial (SPSS). Berdasarkan analisis kebolehpercayaan, instrumen yang digunakan dalam kajian ini telah terbukti boleh dipercayai. Dengan menggunakan ujian-t sampel tidak bersandar, ini menunjukkan bahawa tidak ada perbezaan yang signifikan bagi tahap kegelisahan dari segi jantina pengguna permainan atas talian, dan tidak ada perbezaan yang signifikan bagi tahap stres dari segi jantina pengguna permainan atas talian. Selain itu, dengan menggunakan Korelasi Spearman, ini menunjukkan bahawa tidak ada hubungan yang signifikan antara penggunaan permainan atas talian dan tahap kegelisahan mereka, dan juga tidak ada hubungan yang signifikan antara penggunaan permainan atas talian dan tahap stres mereka. Selain itu, terdapat penemuan yang menunjukkan bahawa tahap kegelisahan dan stres adalah sama bagi kedua-dua jantina, dan penggunaan permainan atas talian tidak menjejaskan tahap kegelisahan dan stres pelajar UNIMAS. Penyelidik pada masa depan harus menjalankan penyelidikan yang sama dengan bilangan sampel yang lebih banyak, memasukkan responden dari universiti lain, dan menggunakan kaedah kuantitatif dan kualitatif untuk memperbaiki kajian ini.

Kata kunci: Penggunaan permainan atas talian, kegelisahan, stres

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter explained the background of study, problem statement, objectives, research questions, hypothesis of the study, and conceptual framework. It also explained the significance of the study, the limitations of the study and clarified the terms used in definition of terms.

1.1 Background of Study

In this 21st century era, Internet has become a necessity to humans. It has been growing exponentially throughout each year. Internet is important to everyone as it ease and improve the quality life of their users. As a result of the Internet's development, abundant of online activities can be done by the users and it includes online gaming. Online games or also known as Internet games are different from offline games as online games needs to be connected to the Internet before playing (IGI Global, n. d.). Online game users usually play games because they want to have fun during their free time and relax. For online or video games, there are various type of genre that online games users can play such as action, adventure, role-playing, simulation, sports, strategy, and puzzle. According to Gulati (2021, April 13), Minecraft, PlayerUnknown's Battlegrounds (PUBG), Genshin Impact, and Mobile Legends are some of the popular games that most online games users play in 2021.

Anxiety is a state of mind marked by tense feelings, concerned thoughts, and physical changes such as elevated blood pressure (American Psychological Association, n. d.). Any change that creates physical, emotional, or psychological discomfort is referred to as stress (Scott, 2020, August 3). Anxiety and stress are both emotional responses, but stress is triggered

by external stressor, whereas anxiety can occur without any stressor (American Psychological Association, 2020, September 21). If a person constantly gets stress, it may affect them physically such as getting an upset stomach, high blood pressure, and chest pain. Apart from that, stress can also lead to anxiety, depression, panic attacks, and emotional problems (WebMD, n. d.). According to Cherney (2020, August 25), anxiety can increase respiration and heart rate, concentrating blood flow to the brain. However, if the situation becomes too stressful, the person may feel lightheaded and queasy.

1.2 Problem Statement

Many researchers have been drawn to discuss this topic due to the growing number of people who play online games. Online gaming is very common for adolescents and young adults especially university students as they tend to play it during their leisure time. However, it was reported that most people who are playing online games too frequently can cause them to have anxiety and stress.

There were quite several studies conducted regarding the relationship between online gaming, anxiety, and stress (Malakar, Chakravorty, & Sanyal, 2019; Ooms, 2018; Loton, Borkoles, Lubman, & Polman, 2016; Kamal & Wok, 2020). In terms of theoretical and methodological parts, most of the prior research shows that there were certain similarities and differences that can be broadened and improved in future studies. There were also a lot of past studies that discuss about the relationship between online game addiction, stress, and anxiety (Varma, & Cheasakul, 2016; Loton, Borkoles, Lubman, & Polman, 2016).

The methodological gap also existed between the past studies and this research topic of interest as there were differences in targeted respondents for the relationship between the impact of online game on anxiety and stress. Studies done by Sitorus, Arfines, & Suryaputri

(2020) focused on the respondents among adolescents in Indonesia rather than on university students. A study by Kamal & Wok (2020) showed some similarity to this study as it was focusing on students from a Malaysian university which is International Islamic University Malaysia (IIUM). There was slightly difference in terms of the variables as the study done by Kamal & Wok (2020) focused on the impact of online gaming addiction on the mental health of IIUM students. For the study of the impact of online gaming on anxiety and stress, research done by Malakar, Chakravorty, & Sanyal (2019) was the closest to this study as it focused on the college students in Kolkata city. Almost all of these studies were conducted using quantitative research method by giving the questionnaires to the respondents to obtain the information needed.

This study was conducted because online gaming behaviour does not always give significant outcomes, but in many cases, such activity can give negative effects (Malakar, Chakravorty, & Sanyal, 2019, as cited in Rouse, 2013). People are usually unable to reduce their internet usage either for gaming or other purposes (Malakar, Chakravorty, & Sanyal, 2019, as cited in Griffiths, 2015). Young people's addiction to video games or online games can lead to a variety of social, mental, and physical health issues (Kamal & Wok, 2020, as cited in Hazar & Hazar, 2018). Video game addiction is also thought to be linked to a variety of undesirable outcomes, including mental, physiological, and social deterioration (Seok & DaCosta, 2014). According to Mentzoni et al. (2011), video game addiction is associated with the rise number of people getting anxiety, depression, and stress. This may create a distraction and interfere the online game users' life such as their health condition, social life, and academic achievement. Based on the findings of a study conducted by Sharer (2012, as cited in Malakar, Chakravorty & Sanyal, 2019), heavy gamers with depression also found to have a lower quality of life. This shows that playing online games too frequently may give a negative impact to the

online game users' anxiety and stress. This study helped to find out whether UNIMAS students does have anxiety and stress due to online gaming or not since online gaming is known as a space for people to escape from the harsh reality.

1.3 Research Objectives

1.3.1 General Objective

To determine the impact of online gaming on the anxiety and stress of Universiti Malaysia Sarawak (UNIMAS) students.

1.3.2 Specific Objectives

In the specific objective, the study aimed to address these research objectives:

1. To investigate the relationship between the gender of online game users and their anxiety level.

2. To investigate the relationship between the gender of online game users and their stress level.

3. To investigate the relationship between the online game usage and their anxiety level.

4. To investigate the relationship between the online game usage and their stress level.

1.4 Research Questions

1. Is there any significant difference between the gender of online game users and anxiety level?

2. Is there any significant difference between the gender of online game users and stress level?

3. Does the online game usage correlate with their anxiety level?

4. Does the online game usage correlate with their stress level?

1.5 Research Hypotheses

H_{a1}: There is a significant difference in the anxiety level in terms of the gender of online game users.

H_{a2}: There is a significant difference in the stress level in terms of the gender of online game users.

H_{a3}: There is a significant relationship between the online game usage and their anxiety level.

H_{a4}: There is a significant relationship between the online game usage and their stress level.

1.6 Conceptual Framework

This study aimed to investigate the impact of online games on the anxiety and stress among Universiti Malaysia Sarawak (UNIMAS) students. Figure 1.0 showed the conceptual framework for this study. For this study, the independent variable was online game usage, and the dependent variables were the level of anxiety and stress.
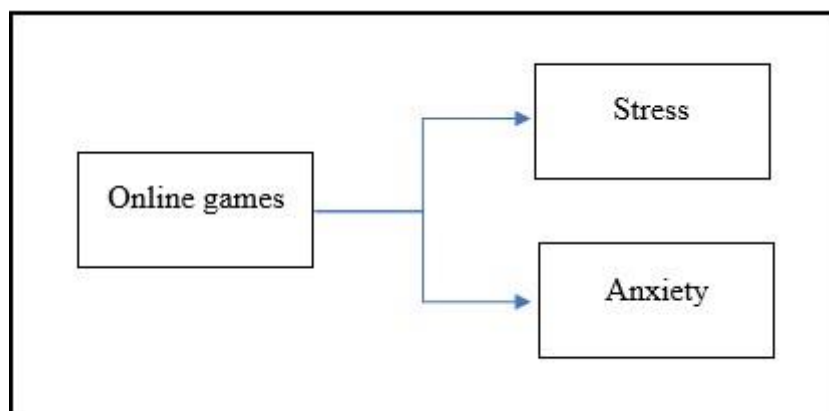

Figure 1.6. Conceptual framework of the study

1.7 Significance of Study

This study would provide future researchers with the study framework that studies the correlations between online gaming, anxiety, and stress on university students. The research findings could provide students at university with knowledge about the impact of online gaming on their anxiety and stress. With such information, university students would acknowledge either online gaming would give an impact to the students' anxiety and stress.

1.8 Definition of Terms

1.8.1 Online games

Conceptual Definition: Online games can be viewed as entertaining activities that are played over the internet or a computer network (Wang & Zhu, 2011).

Operational Definition: Online games can be operationally defined as a space for students to relieve their stress, compete, relax, enjoy themselves, socialize, and even mentally escaping from the reality (Dumrique & Castillo, 2018).

1.8.2 Anxiety

Conceptual Definition: Anxiety can be viewed as feeling anxious, restless, or scared about upcoming or future happenings (Mind, 2017, as cited in Milne & Munro, 2020).

Operational Definition: Anxiety can be operationally defined as a state of mind brought on by a variety of broad and non-specific stimuli that are thought to be potentially dangerous in the future. This sense is frequently accompanied by apprehension, increased arousal, and vigilance, which can last for long periods of time if taken to an extreme (Dias et. al., 2013).

1.8.3 Stress

Conceptual Definition: Stress can be viewed as the changes that leads to physical, emotional, or mental distress (Scott, 2020, August 3).

Operational Definition: Stress can be operationally defined as a state or feeling that happens when a person perceives that demands exceed one's ability to mobilize personal and social resources (Bhargava & Trivedi, 2018).

1.9 Summary

In conclusion, the variables in this study were briefly discussed in this chapter. Each component of the research introduction plays an important role in helping the researcher in conducting the investigation.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter discussed on the previous studies related to impact of online gaming, anxiety, and stress. The theories and models related were also discussed in this chapter.

2.1 Impact of Online Gaming

Online game can be defined as a multiplayer game in which players are connected over the internet (Chen, 2015). Many individuals consider online gaming to be one of their favourite activities that they would like to do during their leisure time. Some people believe that playing video games serves a variety of purposes, including stress relief, challenge and competitiveness, relaxation, enjoyment, socialisation, and even mental escape from the reality (Dumrique & Castillo, 2018). According to Thalemann (2009, as cited in Kuss & Griffiths, 2012), gaming can become a dysfunctional media-focused coping technique for adolescents who utilise online games to cope with stressors. These days, people can play online game on any devices that can access on the internet such as personal computers, smartphones, and handheld gaming consoles. Action, action-adventure, adventure, role-playing, simulation, strategy, sports, puzzle, and idle games are some of the genres of online games. The percentage of internet users in Malaysia that play online games has risen from 35.2% in 2018 to 42.8% in 2020 (Malaysian Communications and Multimedia Commission, 2020). The increase of 7.6% of internet users who play online games shows that some of the Malaysian are getting interested in playing it as a lot of interesting new games are releasing each year.

According to Smith (2019, January 21), many games were developed between the 1940s until the 1960s, and many people enjoyed them. Games were simply played on computer

devices. However, the years of 1960-1990 were a turning point in the history of video games. The internet's basis was built on the foundations of time-sharing and host-based networks. Numerous games have been developed to increase the online engagement of users. Online game availability is far less expensive and provides a greater range of games for users to enjoy according to their preferences. As a result, internet or online gaming has become more popular across the globe in recent years.

Online games do give either pros or cons to the online game users. One of the pros of online gaming is that it improves visuospatial competencies. Visuospatial competencies are the ability to picture the look of a figure when rotated in space, as well as understand the spatial relationships between objects (Milani, Grumi, & Di Blasio, 2019). Milani, Grumi, and Di Blasio (2019) found that improving visuospatial competencies had slightly positive impact for both males and females. Online games are also good for mental health as well. It gives mental stimulation, feeling accomplishment, helps in mental health recovery, have social interaction, and emotional resilience (WebMD, n. d.). Aside from the pros, online gaming also has its cons on the online game users. Internal behaviour issues like depression and conduct issues are strongly linked to video game addiction, while violent video games may maximize the likelihood of external behaviour issues like aggressive behaviour to occur (Quwaider, Alabed, & Duwairi, 2019).

2.1.1 Flow Theory

Mihaly Csikszentmihalyi first proposed the flow theory in the 1970s. Flow is a mental state that combines cognitive, physiological, and affective components (Biasutti, 2011). Flow is a term used to describe when an individual is fully absorbed in the activity. According to Sanjamsai & Phukao (2018), when an individual experience flow, there would be no time to

think about anything else or be concerned about any issues because of the intense concentration. The individual becomes unaware of time and surroundings. Individuals that show their potential during the state of flow can be considered as positive experience. Besides, flow also has some advantages such as giving individuals better emotional regulation, greater enjoyment and fulfilment, greater happiness, greater intrinsic motivation, increased engagement, improved performance, improved learning and skill development, and increase one's creativity (Cherry, 2021, April 9).

Aside from advantages, flow also has its disadvantages. Time warp, tiredness, poor self-awareness, insensibility, and poor attention are some of the disadvantages of flow (Engeser, 2012; Partington et. al., 2009., as cited in Sanjamsai & Phukao, 2018). It can also cause chaos, emotional distress, depression, and addictive behaviour to the individual (Partington et. al., 2009; Wanner et al., 2006, as cited in Sanjamsai & Phukao, 2018). The computer game has created competitive and tough settings that are balanced in terms of challenge and skill, so that playing the game can result in positive outcomes as a reward and leads to repetitive behaviour (Seifert & Hedderson, 2010). Repetitive behaviour can make an individual become more skilful, but it may also be seen as being obsessive. A game user may lose composure and aim for success without realising the passing of time (Thatcher, Wretschko, & Fridjhon, 2008). In addition, game addiction could be caused by intense flow experiences (Sanjamsai & Phukao, 2018). Individuals with game addiction tends to neglect their other daily activities if they could get to play it and have difficulty to quit the game. They were more likely to skip their preferred activity in order to be able to play and focus on the game, since other things seemed to be not important to them (Partington et al., 2009; Weinstein, 2010; Wood, 2008; Wu et al., 2013, as cited in Sanjamsai & Phukao, 2018).

2.2 Anxiety

Anxiety is a widespread feeling of worry and anguish brought on by an unknown, imprecise, ambiguous, and sometimes formless threat of harm (Zeidner & Matthews, 2011). According to American Psychiatric Association (n. d., as cited in Bence, 2021, February 15), anxiety is being refer as expectation of a future threat. Anxiety is associated with a sense of potential threat, thoughts of possible injury, and a physiological alert and activation process (Moss, 2002). It occurs as a response to certain events. Anxiety and fear are two different emotions. Anxiety can happen due to an unknown threat, while fear can happen due to a known threat (Ankrom, 2020, July 8). There is often an overlap between anxiety and fear as these both emotions have a lot of similar traits (Ohman, as cited in Zeidner & Matthews, 2011). It is natural to be anxious or worried about any events in life, such as getting interview, doing presentation in front of an audience, or any other life event. However, if worrying begins to severely disrupt an individual's everyday life, it could be an indication of an anxiety disorder (Milne & Munro, 2020).

According to American Psychiatric Association (n. d.), there are various types of anxiety disorders such as separation anxiety disorder, selective mutism, specific phobia, social anxiety disorder or social phobia, panic disorder, agoraphobia, generalized anxiety disorder, anxiety disorder due to another medical condition, other specified anxiety disorder, and unspecified anxiety disorder. Furthermore, the risk of developing anxiety disorders can be influenced by both genetic, environmental, psychological, and developmental factors (American Psychiatric Association, n. d.).

There are two categories of treatment that an individual with anxiety may get which are psychological, and pharmacological. Some of the psychological treatments are stepped-care approach, self-help and psychological treatments, cognitive behavioural therapy, graded