



UNIVERSITI  
TEKNOLOGI  
MARA



2023

JII CaS

**JOHOR  
INNOVATION  
INVENTION  
COMPETITION  
AND  
SYMPOSIUM  
2023**



"Innovation Inspires a Society  
to be Critical and Creative"



# JOHOR INNOVATION INVENTION COMPETITION AND SYMPOSIUM 2023

"Innovation Inspires a Society to be  
Critical and Creative"

**Editors-in-Chief**

**AHMAD KHUDZAIRI KHALID  
NUR INTAN SYAFINAZ AHMAD**



الجامعة  
UNIVERSITI  
TEKNOLOGI  
MARA

**Cawangan Johor  
Kampus Pasir Gudang**

2023



**First Edition 2023**

**Copyright © 2023 Universiti Teknologi MARA Cawangan Johor, Kampus Pasir Gudang.**

**All extended abstracts published in this e-book have not been subject to JIICaS2023 peer review or check. The authors are responsible for the contents of their extended abstracts and warrant that their extended abstract is original, has not been previously published, and has not been simultaneously submitted elsewhere. The views expressed in the abstracts in this publication are those of the individual authors and are not necessarily shared by the editor.**

**All rights reserved. No part of this publication may be reproduced in any form or by electronic or mechanical means, including information storage and retrieval systems, or transmitted in any form or by any means, without the prior permission in writing from the Course Coordinator of College of Computing, Informatics and Mathematics, Universiti Teknologi MARA Cawangan Johor, Kampus Pasir Gudang.**

**e ISBN: 978-967-0033-17-4**

**Editors-in-Chief: AHMAD KHUDZAIRI KHALID &  
NUR INTAN SYAFINAZ AHMAD**

**Art & Cover Designer: DR. WAN MUNIRAH WAN MOHAMAD  
& DR. NUR IDAYU ALIMON**

**Published in Malaysia by  
Universiti Teknologi MARA Cawangan Johor  
Kampus Pasir Gudang  
81750 Masai**





## **Preface**

**In the name of Allah, the Almighty who gives us the enlightenment, the truth, the knowledge and with regards to Prophet Muhammad (peace be upon him) for guiding us to the straight path. We thank to Allah for giving us guidance and strength to write this e-book.**

**This e-book compiles the extended abstracts that submitted to Johor Innovation Invention Competition and Symposium 2023 (JIICaS2023), where JIICaS2023 is a virtual platform for all creative minds to share and present their invention and innovation. The extended abstracts are divided into two categories, which are Category A (Higher Educational Student/ Any Recognized Institutional Students in Malaysia) and Category B (Primary/ Secondary School Students / Special Education School Students in Johor). Each abstract gives a brief background on the innovation or project.**

**We hope that this e-book will help the readers to get to know the innovation done by the students from both categories and get some ideas to develop future innovation products.**



**A STUDY ON ASSESSING ONLINE GAMING ADDICTION AMONG STUDENTS:  
A CASE STUDY AT UiTM SEGAMAT, JOHOR**

Siti Maisarah Binti Azman<sup>1</sup>, Nurain Binti Rahim<sup>2</sup>, Ayunie Sofea Binti Mohd Sofi<sup>3</sup>,  
Nor Alia Binti Jamil<sup>4</sup>, Siti Hasma Hajar Binti Mat Zin<sup>5</sup>

<sup>1,2,3,4</sup> Faculty of Business and Management, Universiti Teknologi MARA, Johor Branch  
Segamat Campus, Malaysia

<sup>5</sup> Mathematical Sciences Studies, College of Computing, Informatics and Mathematics,  
Universiti Teknologi MARA, Johor Branch, Segamat Campus, Malaysia

Corresponding author: [maisarahsarah31304@gmail.com](mailto:maisarahsarah31304@gmail.com)

**ABSTRACT**

The obsessive mental health condition of online gaming addiction can have major life-altering effects. An online game addict typically plays for more than 10 hours a day, sometimes well into the night, many of them due to sleep deprivation. When gaming consumes a student's life, it will have an impact on them by making them unmotivated and unable to concentrate in class. Online games may distract and interfere with crucial responses to some activities in real life, such as academic performance, health, and social life. Therefore, a study was conducted at Universiti Teknologi MARA (UiTM) Segamat Campus, Johor in order to determine the main effects of playing online games among students and how frequently they spend their time playing online games. Primary data is collected by distributing questionnaires to the respondents. Convenience sampling was used, and a total of 50 students were involved in this study. Findings revealed that 32% of students agreed that playing online games has the worst effect on their eye health, and only 4% of respondents agreed that online gaming additions can make students put off studying until the last minute. Moreover, the majority of students spend 1 to 2 hours playing online games per day. This study also showed that they started to play online games when they were 11 to 15 years old. As for future work, it is suggested that a similar study be done by increasing the sample size and adding other types of dimensions related to online gaming addiction.

**Keywords:** Online games, students, addiction

**1.0 INTRODUCTION**

Online gaming addiction is a compulsive mental health issue that can have serious consequences in one's life. It is normal for an online game addict to spend more than 10 hours a day gaming, sometimes late at night, and many of them suffer from sleep deprivation. Addiction to internet gaming has a negative impact on students. When a student's life is consumed by gaming and the boundary between purposeful and compulsive use is crossed, it can have detrimental effects. Students will lack motivation and lose focus in lessons. Online games may distract us and interfere with crucial responses to our activities in real life, such as academic performance, health, and social life. This can have a huge detrimental impact on our lives, particularly those of students. Playing online games can improve one's mood and reduce depression. Since their lives are so chaotic, many people want to relax by playing online games. Students in particular have a lot of work to accomplish, including assignments and tests, so they use their free time to play online games as a break. Additionally, students can meet distant new friends by playing internet games. They can socialise and spend time with their new friends. While online gaming has numerous benefits, it is always accompanied by drawbacks. This harm happens because of something excessive. Online gaming has

developed into one of the most addictive internet pastimes to date, according to recent studies. Many people prefer to play online video games as a hobby. The majority of them think that playing video games online is a beneficial activity. Being a professional gamer today might provide the highest salary. As people learn about it, they develop an addiction to spending time in front of video games. This causes the majority of students to become more addicted to playing online games, and it may distract and interfere with crucial responses to some activities in real life, such as academic performance, health, and social life. When gaming consumes a student's life, it will have an impact on them by making them unmotivated and unable to concentrate in class. Therefore, this study is conducted to determine the main effects of playing online games among students and how frequently they spend their time playing online games.

## **2.0 OBJECTIVES**

The following are the objectives of the study:

1. To determine the main effects of playing online games among students.
2. To identify the duration of time spent playing online games among students.
3. To determine the starting age at which students start getting involved in playing online games.

## **3.0 DESCRIPTION OF INNOVATION/METHODOLOGY**

This is a quantitative study that explores online gaming addiction among students' at Universiti Teknologi MARA (UiTM) Segamat Branch, Johor. A minimum sample size of 50 respondents was appropriate for this study because Roscoe (1975) and Sekaran (2016) established the general rule that respondents in a survey should be greater than 30 and fewer than 500. The survey is conducted using convenience sampling, which is one of the non-probability sampling techniques. This technique was used since it involves selecting participants who are easily accessible and readily available.

An online questionnaire was chosen as the data collection method. This method is one of the cheapest and fastest ways to reach respondents because responses are processed automatically and the results are accessible at any time. The data was collected using Google Forms. The questionnaire has been shared via social media sites such as Instagram, Telegram, and WhatsApp. The questionnaire consists of two sections. Section A refers to the demographic profiles of respondents, such as age and gender. Meanwhile, Section B consists of four items related to general questions on online gaming addiction.

A descriptive analysis was applied in this study. Several analysis techniques, including cross-tabulations and frequency or percentage tables, are used to describe the profile and characteristics of the respondents. Meanwhile, graphs like pie charts and bar charts, as well as measures of central tendency such as mean, median, and mode, are used to analyse the question related to online gaming addiction among students.

## **4.0 ADVANTAGE/IMPACT/RESULTS/NOVELTY**

The following table examines the characteristics of the respondents, which comprise age and gender. Table 1 shows that the majority of the respondents (80%) in this study were female, while only 20% were male. The respondents consist mainly of students who are in the age group of 18 to 20 years old, which is 82%, while the lowest percentage is 4% from the age group of 24 to 26 years old.

Table 1: Demographic Profile of The Respondents

Variables	Frequency	Percentage (%)
<b>Gender</b>		
Male	10	20
Female	40	80
<b>Age (in years old)</b>		
18 – 20	41	82
21 – 23	7	14
24 – 26	2	4

From Figure 1, about 74% of the students chose their smartphone as their device for playing online games. Another 20% of students chose laptops as their gadget when they were playing online games. While only 6% of students were playing online games using a tablet.

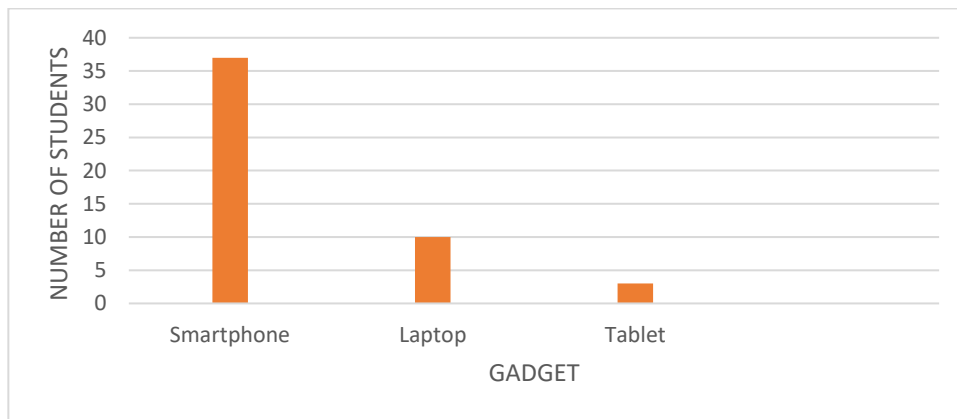


Figure 1: Type of Gadget That Respondents Use the Most

According to Figure 2, around 32% of respondents voted for negative effects on eye health as a result of playing online games. Release stress was the second highest of the respondents' votes, with 22%. Only 4% of respondents agreed that online gaming additions can make students put off studying until the last minute.

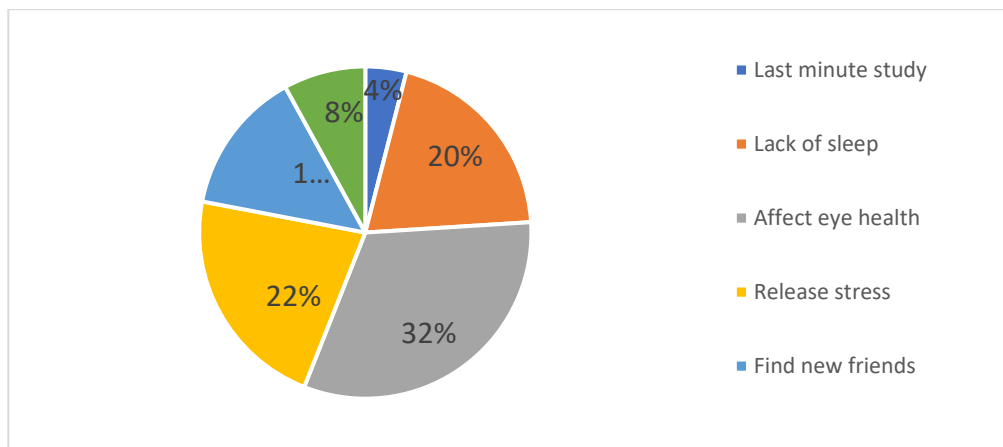


Figure 2: Effect of Playing Online Games

Table 2: The Age at Which Respondents Start Playing Online Games

Age (in years old)	Frequency	Percentage (%)
1 – 5	6	12
6 – 10	6	12
11 – 15	26	52
16 – 20	12	24

Table 2 demonstrates that the majority of students start to play online games when they are between 11 and 15 years old. Furthermore, based on Figure 3, we can see that the maximum duration of the student playing online games in a day is 1 to 2 hours.

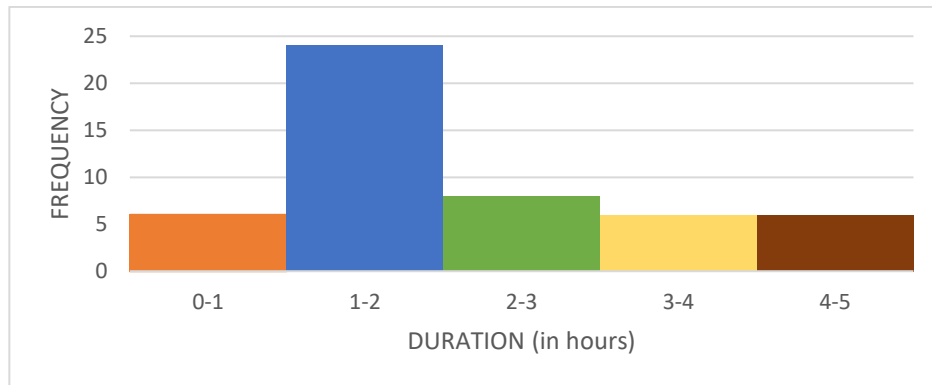


Figure 3: Duration of Students Playing Online Games in a Day

## 5.0 CONCLUSION

From the findings, we can conclude that half of students were involved in playing online games when they were in high school, while the rest got into online games when they were in primary school. The majority of them spend 1 to 2 hours playing online games. Most students claimed that online game addiction would affect eye health, as it was the most popular one. Therefore, the students need to know how to manage their time between studying and playing online games. The students must set a certain time for playing online games and can get assistance from others that can help them finish tasks faster and with less strain. As for future work, it is suggested that a similar study be done by increasing the sample size and adding other types of dimensions related to online gaming addiction.