Faculty of Cognitive Sciences and Human Development

ACTION ROLE-PLAY GAMES AND DECISION MAKING

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Bachelor of Psychology (Honours)

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Final Year Project Report ☑

Masters ☐

PhD ☐

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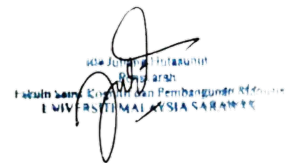
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ACTION ROLE-PLAY GAMES AND DECISION MAKING

HARMIZA BINTI IZMIR

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 **'Action Role-play Games and Decision Making'** was prepared by **Harmiza Binti Izmir (69825)** and submitted to the Faculty of Cognitive Sciences and Human Development in partial fulfillment of the requirements for a Bachelor of Psychology with Honours

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Lastly, although this project may have some flaws or room for improvements, I am immensely hopeful that this project may serve as a benefit to all students and the society. May Allah blessed all of the people aiding this project and those reading it success in this world and the hereafter.

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ABSTRACT

This study aimed to observe the potential of ARPG in the development player's decision-making. Due to the lack of the present research on ARPG as it is a sub-genre, this paper serves to provide some literature on ARPG or specifically in this paper, Genshin Impact, due to its current growth and popularity. This paper has two research objectives which are (a) to examine the factor players chosen to engage in ARPG (Genshin Impact), and (b) to explore the decision-making development of the players over time from lower level to their current level in-game. The data is gathered from six (6) Malaysian World Level 8 Genshin Impact players with previous data of Spiral Abyss (2021/5). The research design is of qualitative; hence a semi-structured interview is done with the participants to gather data. The data is then analyzed through thematic analysis for the first objective and content analysis for the second research objective. The findings from the analysis shows that there are four factors for players to choose Genshin Impact which are marketing and recommendations, time of release, real money investment and interest and attachment to game content. It also shows that the player's decision making has a generally positive development after 12 months. To conclude, there are multiple factors for players to choose Genshin Impact and ARPG (Genshin Impact) has the potential in development of player's decision-making.

Keywords: *decision-making, action role-play games, Genshin Impact, Spiral Abyss*

ABSTRAK

Kajian ini bertujuan untuk meneliti potensi ARPG dalam perkembangan pemain untuk membuat keputusan. Oleh kerana kekurangan litertur mengenai ARPG yang merupakan sekadar sub-genre, kajian ini menyumbang dalam genre ARPG, di mana ARPG dalam kajian ini dikhususkan kepada Genshin Impact yang sedang popular. Objektif kajian ini adalah untuk (a) mengetahui faktor pemain memilih ARPG, dan (b) meneroka perkembangan pemain dalam membuat keputusan dalam tempoh masa pemain berada di tahap yang rendah sehingga tahap mereka kini. Data dikumpul daripada enam pemain Genshin Impact di Malaysia yang berada di *World Level 8* dan mempunyai data pada 2021/5 *Spiral Abyss*. Kajian ini berbentuk kajian kualitatif. Oleh itu, data dikumpul melalui temu bual separa berstuktur. Data kemudiannya dianalasis menggunakan analisis tematik untuk memenuhi objektif utama dan analisis konten untuk objektif seterusnya. Dapatan daripada kajian ini menemukan bahawa terdapat empat faktor pemain memilih ARPG iaitu teknik pemasaran dan rekomendasi, masa pelancaran, pembelian dalam permainan dan minat terhadap konten permainan. Selain itu, dapatan turut menunjukkan bahawa pemainan mempunyai perkembangan positif dalam membuat keputusan setelah 12 bulan. Kesimpulannya, terdapat pelbagai faktor pemain memilih Genshin Impact dan ARPG mempunyai potensi dalam perkembangan pemain dalam membuat keputusan.

Kata kunci: *membuat keputusan, 'action role-play games', 'Genshin Impact', 'Spiral Abyss'*

CHAPTER ONE

INTRODUCTION

1.0 Introduction

In this paper, the development of the player's decision making was observed and analyzed through the content available currently in Genshin Impact called Spiral Abyss. This chapter includes the background of study, problem statement, research objective and questions, research framework, definition of terms and the significance and limitation of study.

1.1 Background of Study

The COVID-19 had affected our lives in various ways, restricting our movements and daily activities. This pandemic had urged everyone to pick up a new hobby or find ways to communicate without having to be in public spaces. Online gaming had been one of the activities that received a lot of attention due to the lockdown. Even before the pandemic, the physical sales of video games have decreased while in 2020, digital gaming spending (in- game content and paid downloads) increased by 12 percent and 21 percent respectively (Clement, 2021). One of the games that had caught the public attention during the time was Genshin Impact. The game was released on 28 September 2020 on multiple platforms and has gained interaction since. Which led to why I would like to carry out this research. The game centered a lot around decision making, which was why I am interested in how it affected the players in their decision making over time.

Decision making is also a very significant process in our daily life. Our life came down to choosing between options, to do or not to do, for every action we decide on. There are games that has butterfly effect as their game mechanics where players are asked, and their choices have consequences. Studies also found that the competence of one's decision making may be influenced by one's emotion regulation, motivation and experience (Bruine de Bruin, Parker & Fischhoff, 2020). This further reinforce how significant decision making is to an individual as it affects and was affected by all aspects of one's life.

1.2 Problem Statement

The Game of the Year Award in 2020 was rewarded to Genshin Impact, which is categorized as an open-world Action roleplay games (ARPG) that has more than 10 million players since its first release. On the recent The Game Awards 2021, Genshin Impact had also snatched the title for the Best Mobile Game Action games and also the grand award for the PlayStation Partner Awards 2021. The game is available across platforms including PC, PlayStation and mobile, and the game managed to win big awards for all the platforms. This shows the growth and popularity of the game and its relevance currently in the online game scene.

A paper by De Freitas and Griffiths (2007) discussed how online gaming can be a tool for education. They argued that massively multiplayer online role-playing games (MMORPG) has the ability to support approaches in collaborative learning. There are projects made that were able to support the approach such as the Rochester Castle and StrikeCOM. There is usage of video games in education but are very limited in choice. These RPG are usually based with task that involved conflict resolution and decision

making. With the online gaming scene being more relevant with advancement in technologies, this can allow the usage of it to promote education. Although, people took gaming as a mean to destress instead of a learning tool, there are many game genres that are able to provide in entertainment solely, while RPG games are usually more geared towards cognitive skills. MMORPG is another sub-genre of RPG along with ARPG, where I believe share more similarities than not.

 Action games had shown benefits on decision making and roleplay games (RPG) exhibit learning dimensions that can lead to personal development. Meanwhile, ARPG is inclusive of both the genre of action and roleplay. Plenty of research are available of the game genre separately, but there are barely research including the ARPG genre. With the rise in number of ARPG players, this research serves to find if ARPG has the potential in regards of the player's decision-making development.

1.3 Research Objectives

1. To examine the factor players chosen to engage in ARPG (Genshin Impact).

2. To explore the decision-making development of the players over time from lower level to their current level in-game.

1.4 Research Questions

1. What are the factors for choosing ARPG (Genshin Impact)?

2. How does ARPG players approach their decision making in the game in current (upper) adventure rank and lower adventure rank? Does APRG players' decision-making skills improve over time?
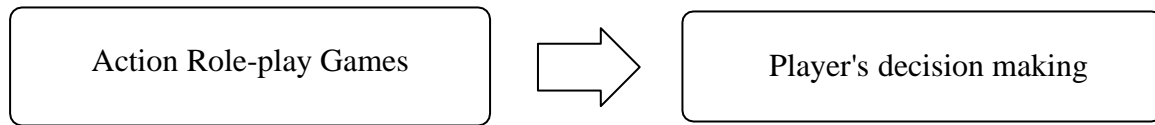
1.5 Conceptual Framework

Figure 1.5 Conceptual framework of the study

1.7 Significance of Study

This study will allow researcher and game developers to see the impact of the game genre towards their player base and develop more games that does more than just provide entertainment for the players. Knowing the impact of the game genre on its player will be able to aid players in their decision to engage with the game genre. As stated by Bruine de Bruin, Parker & Fischhoff in 2020, decision making can be affected by experience which can increase with time. This research may serve to see if the in-game decision making of the players are affected with the amount of time and experience they spent on the game. Other than that, this study may serve for any future or further research on the game genre and its potential in the development of the player's decision making. It can be a basis for any researcher that are interested to investigate more regarding this issue, for example, they can conduct research on the influence of the genre on decision making outside of the game mechanics.

1.8 Definition of Terms

1.8.1 Action role-play games

ARPG is a game in the subcategory of RPG games, which according to Xbox Wire Staff (2015) is a genre of games that requires the player to make real-time decisions that tend to stress on combat rather than other aspects of role-play. ARPG also does not have a tactical interface or menu between the characters and the players. In this study, ARPG refers to Genshin Impact due to the instrument used.

1.8.2 Decision making

"Good" decisions according to Yates (1990) are the ones that may bring the decision maker to their goals. However, a good decision does not have to be decided after the outcome was received, as Egan (2015) argued that a decision is good according to the rigor being put in the decision. A good decision making will be judged according to the six requirements of decision quality (DQ) by Speltzer et al. (2016), where it met all of the requirements stated in DQ.

1.8.3 Spiral Abyss

Spiral Abyss is a special domain in Genshin Impact that challenges the players to clear the level within specific period of time for different level of achievement. The Abyssal Moon Spire (floor 9 to 12) refreshes every 16 days; hence it is possible to track the participant's progress.

1.8.4 Damage per second (DPS)

The term DPS is used in online gaming to refer to either a measurement of offensive damage of a damage dealer or weapon in game, or it can refer to the character classes that have the ability to deal high damage.

1.9 Summary

In this chapter, the background of the study is explained along with the problem statements and objectives to further understand the purpose of the study. Moreover, this chapter also includes the definition of the terms that will appears in further chapters.

2.0 Introduction

This section discusses the issues related to the theories that are going to be the basis of this research. It also includes the discussion of previous studies regarding games and decision making.

2.1 Decision making theory

2.1.1 Theory Related to Decision Making Theory

Normative theories in behavioral decision research defines "good decisions" as those that has the most likelihood to achieve the desired outcomes of the decision maker. The theories listed four significant processes for a good decision, which is belief assessment, value assessment, integration and metacognition. Belief assessment refers to the judgement of probability of specific outcomes for each option, while value assessment refers to the judgement of the success of outcomes compared to the goals. On the other hand, integration refers to coherent decision made by merging beliefs and values, and metacognition is the understanding of one's abilities in terms of strength and limitation. These processes usually focus on *accuracy* (correspondence with external criteria) and *consistency* with other beliefs instead of the decision outcome. Good decision processes may yield undesired outcome as it is affected by chance, but better decision process should acquire better decision outcomes (Strough, 2015).

Other than that, another research discussed about judging the quality of decisions. The quality of decisions does not have to be made only after knowing the outcome of it and

it is possible to be able to gauge the quality beforehand. The quality of a decision that was judged beforehand is determined with the rigor in solving the problem. When a good decision is made, there are less surprises in hindsight. Decisions that are better than others depend on the quantity and quality of information and reasoning being put into the decision. It is also considered as high quality when the decision maker is aware of the risks they are taking, knowing the quality of their information and the biases they have in their reasoning. A bad decision can be described as one with poor quality and quantity information or faulty reasoning. As outcomes are affected by chance, good decisions usually do not depend on luckto achieve desired outcome as it is a well-informed risk-taking (Egan, 2015).

The theory that I applied to decide the decision making of the participants is Decision Quality (DQ) proposed by Speltzer et al. (2016). DQ outlined six (6) requirements that has to be met for it to be a high-quality decision. The requirements of DQ are as follows:

1. Appropriate frame.
2. Creative alternatives.
3. Relevant and reliable information.
4. Clear values and trade-offs.
5. Sound reasoning.
6. Commitment to action.

All of the requirements above have to be met in order to come up with the best decision as Speltzer believes that the requirements are linked to each other, hence if one of the requirements are lacking, it would not create a "strong chain" for a high-quality decision. For example, the decision with five good requirements but is solving the wrong problem (requirement 1) will lead to a decision that will not be of value to the decision maker. Hence,

I will be prompting the decision-making process with the guided questions (refer Appendix B) to observe if their decision making meets all the requirements of DQ during the latest Spiral Abyss phase and 2021/5 Spiral Abyss phase. A comparison will be made between both phase DQ to see how the player's decision making develop after some time.

2.2 Previous Findings

ARPG and RPG has a very fine line dividing it, hence there are certain games that falls under the category but would have arguments to be on either side. ARPG is difficult to define but the core of ARPG is the focus on combat and the need for real-time decisions by the players instead of menus or tactical interface for the players to control the character. RPG would require the players to be able to decide quickly and form strategies to solve a problem in the storyline (Xbox Wire Staff, 2015).

Studies on action games players have shown that they can make decisions faster with more accuracy compared to non-gamers. Action games where the player has to navigate through an unknown map while not knowing when the enemy will show up, improves the reaction to decide for the player. In a news article regarding action games such as GTA-V, states that RPG or strategy games does not output the same result. ARPG on the other hand includes the element of action, which also require the player to make quick decisions, hence the claim on RPG and strategy games should not affect APRG's result (Gree, Pouget & Bavelier, 2010).

A study made by Zhang et al. (2021) shows how the action video gaming participants having a higher rate of training compared to the controlled group. There were two tasks regarding the perceptual and cognitive aspects. Their "learning to learn"