FACTORS THAT LEAD TO TOXIC BEHAVIOUR TENDENCIES AMONG

UTAR SUNGAI LONG ONLINE GAMERS

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YONG KOK SHENG

Approval Form

This research paper attached hereto, entitled the factors that lead to toxic behaviour tendencies among UTAR Sungai Long online gamers prepared and submitted by Yong Kok Sheng in partial fulfillment of the requirements for the Bachelor of Corporate Communication (Hons) is hereby accepted.

Edwin Soo
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Date: __27 November__ 2022

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Mr. Edwin Soo Kim Seng

DECLARATION

I declare that the material contained in this paper is the end result of my own work and that due acknowledgement has been given in the bibliography and references to ALL sources be they printed, electronic or personal.

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ABSTRACT

In a world full of technologies, multiplayer online games have become very popular among youngsters and adults. This is because it will be lonely to play games alone. After all, friends/family members are not nearby; hence, multiplayer online games are invented to satisfy gamers' demands of playing with others. As such, the invention of multiplayer online games has brought communication issues to gamers. They need to communicate with other teammates who are strangers in real life to win a game. As such, toxic behaviours such as flaming, harassing, insulting, and so on often happen when playing games, especially Team-Based Competitive Games such as League of Legends, Counter Strike Global Offensive, Dota and so on. Thus, this study aims to explore three main factors: time spent on gaming, skills level, and gaming community cultures that lead to UTAR Sungai Long online gamers behaving toxically. This study used quantitative methods through a survey questionnaire to 102 online gamers around the UTAR Sungai Long campus. Prior research found that internal and external factors affect toxic behaviour tendencies. This study found that time spent on gaming and gaming community cultures will specifically affect toxic behaviour tendencies. However, skills level remains unknown as the data collected shows that the amount of participants agreeing and disagreeing with skills level will affect toxic behaviour tendencies is the same.

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1.1 Chapter Overview

This chapter provides insights into the background of the study, research gap, problem statement, research objectives, research questions, operational definition, and chapter transition.

1.2 Background of study

What is toxic behaviour? According to Erin Eatough (2022), toxic behaviour can be categorized into three major components: selfishness, hostility, and manipulation. According to Cambridge Dictionary (2022), selfishness refers to a state where one only cares about their advantage or interest. Hostility refers to a state where one is unfriendly towards someone. Finally, manipulation is a state where one tries to control something unfairly to achieve their advantage.

Some gamers might have toxic traits during gaming, affecting others' gaming experiences. These toxic traits can be categorized into several categories: flaming, griefing, threatening, and sexual harassment (Opinion, 2020). Flaming refers to hostility towards other gamers in a game by using offensive language against them (Kidas, 2021). According to Paez (2020), griefing refers to the gamer giving up on winning the game and instead focusing on annoying other gamers, such as sabotaging their teammates or purposely losing the game. These traits have led to a bad gaming experience for other gamers and formed a toxic culture in the gaming community because other gamers may do the same things to the other gamers so that other gamers could feel the same as they do.

Not only will the casual gaming community suffer from toxic behaviour, but also the esports professional gaming community. Recently, Valve, a video game company well-known for their games such as Dota 2, Team Fortress 2, and Counter-Strike: Global Offensive, banned one of the professional gamers, Jimmy Ho, also known as DeMoN, from participating in the gaming competitions held by the company due to Jimmy sexual harassing other gamers. Besides Jimmy, there are lots of professional gamers also banned from participating in tournaments because of their toxic behaviours (Rondina, 2021). This incident proves that every game's gaming community suffers from toxic behaviours, which should be solved immediately before it is too late.

With the rise of technological advancement and the COVID-19 pandemic, there has been a substantially increasing number of gamers throughout last few years due to the public not being allowed to step outside their house. There were 2.96 billion video game gamers worldwide in 2021 (*Online Gaming Statistics: 17 Facts That Will Blow You Away*, n.d.). Besides, 65% of them are playing multiplayer games. Therefore, it can be said that communication occurs while playing the games. This is because multiplayer games, especially Multiplayer Online Battle Arena (MOBA) games such as Leagues of Legends, Mobile Legends, and Counter-Strike Global Offensive, need continuous communication and strategies to maintain the teamwork to win a game. Continuous communication may lead to arguments between gamers, increasing toxic behaviour tendencies. This is because the gamers will act more aggressively due to the online disinhibition effect. As the gamers' identities are anonymous in the game, they tend to behave toxically because they know the other gamers cannot do things to them except for arguing back. As a result, the toxic behaviour tendencies among gamers will increase as communication occurs in every round of gaming.

1.3 Research Gap

Many previous researchers have done several studies on the toxic gaming community from different perspectives, such as the effects of toxic behaviour, the factors that lead to toxic behaviour, and the type of toxic behaviour in various types of multiplayer online games.

The past research has identified several aspects that caused gamers' toxic behaviour, such as the match meta-information, gamers' performance, and in-game chat information. Match meta-information refers to contextual information about the match, including the duration and outcome of the game for each gamer, such as win, lose or quit. In-game chat information refers to the chat history between teammates and enemies during the game. For example, "Relating conversational topics and toxic behaviour effects in a MOBA game" by Neta and Becker on 2018 researched how the match-meta information and gamers' performance lead to toxic communication among gamers. However, other areas need to be studied, such as the gamers' skill levels, the time gamers spend in the game and the gaming cultures in different types of games. The gamers' skill levels can also be one of the factors that lead to high tendencies of toxic behaviours due to the ego of experienced gamers. According to Statt (2021), it is proven that gamers with much higher skill levels tend to be more aggressive during gaming. As a result, we will conduct in-depth research on why seasonal gamers are frequently toxic in games.

The past research also tested how external factors such as competition against opponents and the communication among teammates affect gamers' behaviour. For example, the research paper by McLean, Waddell, and Ivory on 2020 with the title "Influences of Cooperation and Competition on Hostility between Teammates and Opponents in an Online Game" researched the external factor, which is the cooperation among teammates and competition with the opponents that affect the toxic behaviour of gamers. These factors might be why gamers are toxic in the game, but researchers can also research other aspects. This is

because some of the gaming community's cultures can also affect some of the toxic gamers in games. For example, gamers might feel it is okay to misbehave in a game because the whole gaming community is acting like that. As such, we will conduct in-depth research on the relationship between gamers' toxic behaviour and the gaming community's cultures.

1.4 Problem Statement

Due to the emerging technological advancement, people, especially young adults and children, started playing online games during their free time. As they play team-based competitive games such as League of Legends, Mobile Legends, Counter-Strike Global Offensive, and Dota 2, they will communicate with their teammates who are strangers in real life. As such, they will harass or even flame the other gamers during the game because they know that the gamer they harass, or flame does not know their real identity. As more and more people played these games, this phenomenon spread and became a severe problem for society as it may affect the growth of the future generation.

According to Ratan (2021), Anti-Defamation League (ADL) came out with a study proving that over 80% of multiplayer gamers suffer from toxicity during gaming. Most toxicity is related to gender, race, sexual orientation, religion, or ability. Besides that, Riot games recently announced that one of the popular online multiplayer games, League of Legends, will remove the all-chat system from the game (Leston,2021). Even though the company did not mention the reason for removing the all-chat system, the public still knows it is because of the toxic gaming community inside the game. This is because League of Legends has always been the most toxic gaming community in the world, and the ranking system of Esportsbets can prove this statement. So, through this statement, we can say that the gaming community is suffering from gamers' toxic behaviour but is this the gamers' fault or the gaming environmental problems?

As a result, in this research paper, I want to focus on three main factors that lead to UTAR Sungai Long online gamers behaving toxically. These factors are their skills level(whether they are experienced in-game or newcomers in-game), the time they spend on gaming (the hours they play games per week), and also the cultures of the gaming community (such as in-game chatting community, social media post or groups that related to the game they played). To identify the first two factors, we will use Social Cognitive Theory (SCT) to find out how gamers will be affected by other gamers and how gamers' behaviour changes during gaming. The reason for choosing SCT is because the theory describes how individual health behaviours can be affected by the influence of personal experiences, which is the gamers' experiences in the game, such as skills level, and the actions of others, which is how the gamers affected by the other gamers during gaming. As such, SCT can prove that gamers' behaviour can be affected by their experiences and other gamers during gaming.

1.5 Research Objectives

The research objectives for this study are as follows:

1. To discover the relationship between the time UTAR Sungai Long online gamers spend on gaming and their toxicity tendencies in games.

2. To explore the frequency of toxic behaviour between experienced and newbie UTAR Sungai Long online gamers.

3. To evaluate how the cultures of the gaming community affect UTAR Sungai Long online gamers ' toxicity tendencies in games.

1.6 Research Questions

The research questions for this study are as follows:

1. Does an experienced UTAR Sungai Long online gamer tend to be more toxic during gaming?

2. Do UTAR Sungai Long online gamers behave toxically when they spend a lot of time playing the games?

3. How does gaming community culture encourage gamers to misbehave in games?

1.7 Operational Definitions

1.7.1 Toxic Behaviour

As mentioned above, toxic behaviour can be characterized by three main components: selfishness, hostility, and manipulation that lead to unhealthy traits of gamers during gaming.

Selfishness

According to Cambridge Dictionary (2022), selfishness refers to how ones will only think about their advantage without concerning others. We can say that gamers who tend to care about their benefit in the game inhibit selfish behaviour. For example, as shown in Figure 1, when a League of Legends game comes around 20 minutes, gamers can vote to surrender when they think they do not stand a chance to win the game, but it requires 4 out of 5 teammates to vote yes to surrender. If 2 of the teammates voted no or did not vote for the surrender, then the surrender vote will be abolished, and the game will be continued. As a result, in the conversation in Figure 1, we can see that a gamer named "Rumz013" is arguing

with his teammates about surrendering as he does not want to surrender even though most of his teammates are voting yes. So, we can say this gamer is selfish and toxic because he does not care about his teammates' ideas as he only tells his teammate to wait until the whole game is lost.
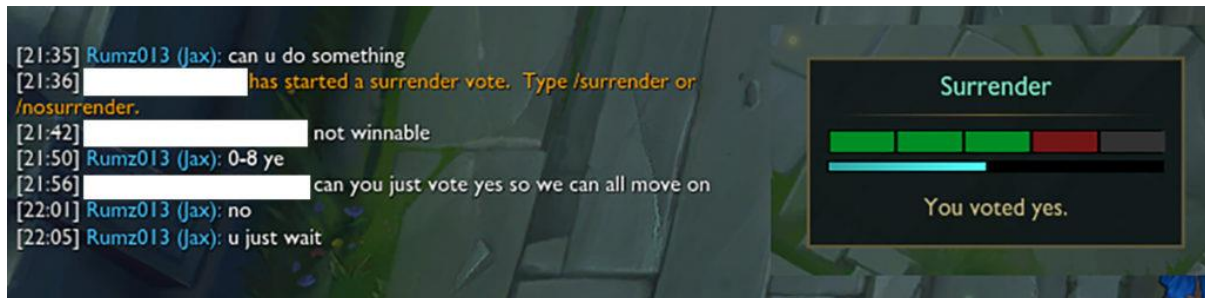
Figure 1.1: Conversation between League of Legends gamers about surrendering issues

Hostility

Hostility in games refers to gamers being unfriendly towards their teammates or enemies. Most of the time, when gamers try to be hostile toward their teammates or enemies, they abuse them by insulting, humiliating, or even using vulgar words. For example, Figure 2 and Figure 3 show a conversation between League of Legends gamers while playing a casual game. By looking into the conversation, we see that gamers tend to insult each other by saying "noob" or insulting family members by saying "rekt your mom.". These figures prove that the online gaming community is in a chaotic situation where people try to be hostile to each other, whether winning the game or losing it.

Figure 1.2: Conversation between League of Legends gamers

Figure 1.3: Conversation between League of Legends gamers

Manipulation

Manipulation refers to one tendency to control someone unfairly so that it can achieve the manipulator's advantages. For example, gamers tend to manipulate their teammates to achieve their goals, such as getting excellent scores on their records during gaming.

1.7.2 Skills Level of Online Gamers

The skills level of online gamers can be categorized into two types: experienced gamers and newbie gamers. The standard to identify both types of gamers consists of many ways. However, the easiest way to identify both types of gamers is by inspecting their game ranking. This is because Multiplayer Online Battle Arena (MOBA) games consist of ranking systems so that they can differentiate experienced gamers from newbie gamers for fair game queuing. For example, Figure 4 shows the ranking system of one of the MOBA games, League of Legends, while Figure 5 shows the ranking system of Counter-Strike: Global Offensive.
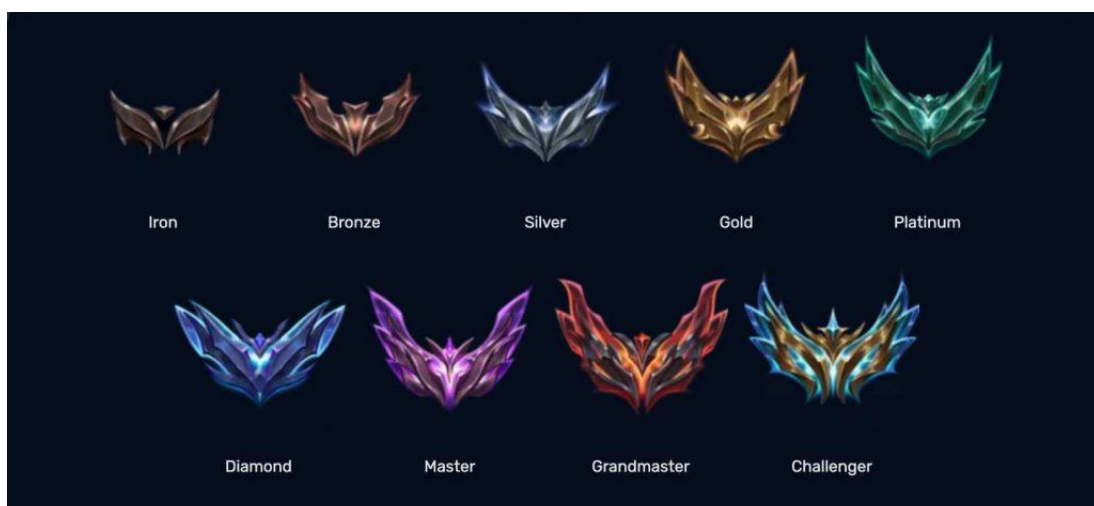
Figure 1.4: League of Legends ranking system

Figure 1.5: Counter-Strike: Global Offensive ranking system

Experienced Gamers

To be defined as experienced gamers from the ranking perspective, gamers must get to their

respective rank to be declared as experienced or professional gamers. For example, in the

case of League of Legends, gamers have to get to platinum rank or above to declare

themselves as experienced gamers. This is because the total shares of gamers ranked platinum

and above do not exceed 15% of the League of Legends player base (Ahn, 2022).

Newbie Gamers

Newbie gamers are those gamers who are newcomers to the games or have lesser gaming

experience than experienced gamers.

1.7.3 Gaming Community Culture

Before learning about gaming community culture, let's understand what culture is. According to Pappas and McKelvie (2022), culture is how a particular group lives. It can be the way they speak, their codes of manners, their rituals, the dress code considered normal, or even their customary belief. Culture can differ in different groups of people, such as religions, races, or even communities. So, there is also a gaming community for gamers to discuss with each other on gaming topics. As there is a community, there is also culture. As such, it can be said that gamers will have their codes of manners in the gaming community.

1.7.4 Social Cognitive Theory

Social Cognitive Theory, also known as Social Learning Theory, was developed by Albert Bandura in the 1960s. This theory refers to how one's behaviour can be affected by the influence of their own experiences, the actions of others, and environmental factors. According to Nickerson (2022), Bandura claimed that observational learning is a major component of social cognitive theory. He also claimed that observational learning occurs through multiple SCT stages: attention, retention, motor reproduction, and motivation. In the attention stage, an individual will focus on the behaviour of others and the consequences of their behaviour. Then, the individual will memorize the observed behaviour and try to understand it in the retention stage. After that, the individual will try imitating the learned behaviour in the motor reproduction stage. In the last stage, the motivation stage, an individual will need some motivation to perform the learned behaviour, such as the desire to fit into a group of people. For example, the gamers that newly play the game will notice how other gamers talk with each other and the consequences of their behaviour. Then, they will

start to memorize those other gamers' behaviours and learn from them. In the end, they will begin to imitate the behaviours so that they can fit into the gaming community.

1.7.5 UTAR Sungai Long Online Gamers

According to Statista (2022), over 73% of Malaysians aged between 16 to 24 are gamers in 2020. Therefore, in this research paper, we will target UTAR students as our respondents as they are young adults who play games during their free time. As such, it will be easier for data collection.

1.8 Chapter Transition

Next, this dissertation will proceed to Chapter 2, Literature Review. In the next chapter, we will look into the chapter overview, past studies related to the topic researched, key findings related to the research topic and the theoretical framework.

Chapter 2: Literature Review

2.1 Chapter Overview

This chapter provides insights into the key findings related to the research topic, past studies, and theoretical framework.

2.2 Key Findings Related to the Research Topic

2.2.1 Toxic Behaviour

2.2.1.1 What is it?

According to Drake (2021), "toxic" refers to many issues that can be caused in health, social, and environmental areas. For example, toxic waste refers to chemical waste material that will lead to harm to the environment, while toxic relationship refers to a relationship between people that makes each other feel worse rather than better. In human behaviour, toxic behaviour refers to someone acting negatively and has caused disturbance to others through negative words and actions. Toxic behaviour sometimes can be subtle as human behaviour constantly changes according to its environment. Those people with toxic behaviour are called toxic people. As such, here are some common traits of toxic behaviour.

2.2.1.2 Traits of Toxic Behaviour

According to Champion (2020), a person with toxic behavior tends to be manipulative. For example, people with toxic behaviour will try their best to get people to do what they want and don't care about what others think. Besides, Toxic behaviour also affects someone to be judgemental. This is because they don't want others to judge them for their mistakes. As such, they often criticize and enlarge a mistake that others make so they can get

away when they make mistakes. Lastly, people with toxic behaviour think they are superior and better than everyone. As such, this mindset has led them not to speak respectfully to others because they think it is unnecessary to talk respectfully to someone under them. As a result, these are some common traits of toxic behaviour.

2.2.1.3 Effects of Toxic Behaviour

When there are negative things, there will be negative impacts brought. According to Ashley (2019), the negative effect brought by toxic people on innocent victims is that those victims feel exhausted and drained. This will lead to the victims giving up communication or trying to escape the situation. Besides, the victims will also suffer from the fear of communicating with toxic people. This is because they fear the toxic person will scold them even though they have done nothing wrong. If this issue were not resolved in time, the situation would worsen, and the victims would start to fear communicating with others because they think everyone will act the same as the toxic people. In the worst situation, the victims will start to feel depressed, leading to mental health issues. From another opposite perspective, when the victims suffer from toxic people, some of them will tend to become toxic people. This is because they will have a mindset that it is common to behave in such a way. As such, ways to deal with toxic people must be learned.

2.2.1.4 Ways to Deal with Toxic Behaviour

According to MMA Medical Experts (2021), when we suffer from toxic people, we set boundaries to prevent those toxic people crosses those boundaries. When we can't control how others behave, we should let them know what to expect from us when they cross the boundaries. Besides, we need to be compassionate to those toxic people. This is because most of them require attention or care from others. So, they tend to attract attention but behave negatively. As such, giving them some attention and care might change their toxic behaviour.

However, we shouldn't do it at the expense of our emotional resources because it is not worth it, as it may not change toxic people's behaviour.

2.2.2 Team-Based Competitive Games

2.2.2.1 What is it?

According to Kou (2020), team-based competitive games refer to games where gamers with team up with other gamers to compete against enemies who are also gamers. To win the game, gamers have to cooperate with their teammates throughout the game. There are many genres of team-based competitive games. As the technologies advance, team-based competitive games are not only limited to computer games but also mobile phone games.

2.2.2.2 Team-Based Competitive Games Genres

One of the popular genres is First-Person Shooter games (FPS). According to Byers (2022), FPS games refer to the gamers who will play as a character from a first-person perspective and shoot the enemies. Famous FPS games include Counter-Strike: Global Offensive (CSGO), Call of Duty series (COD), and Halo. Besides FPS games, Multiplayer Online Battle Arena games (MOBA) are also one of the popular genres that have lots of gamers playing. According to Wirtz (2022), MOBA games are games that will have two teams of gamers and come out with different characters. After that, gamers will fight with each other for resources and objectives. Famous MOBA games include Defence of the Ancients 2 (DOTA 2), League of Legends (LoL), and Honor of Kings.

2.2.3 Gaming Communities Culture

A gaming community is a group of gamers with the same interest in a game band together and form a community (Slack, 2021). As a community arises, it comes along with a culture. In gaming communities, there are some positive cultures as well as some negative cultures. Positive cultures include the rise of cosplayers. Cosplay refers to the practice of dressing up as a character, whether the character is from anime, cartoons, and games (McKay,2021). Cosplay is considered a positive culture because cosplay events are one of the channels that help bring gamers from the virtual world back to the real world and make new friends with the same interest (Duarte & Barrera, 2018). Besides, cosplay also helps those cosplayers express themselves and boost their confidence. Besides cosplay, one of the positive gaming cultures is that gamers tend to make friends with strangers from different countries, but of course, this excludes toxic gamers that want to ruin others' gaming experience. Even though these gamers are from different countries with different religions and cultures, they can become friends in games and real life. These gamers chit-chat with others or even have a meet-up in real life, making the gaming communities' culture harmonious and comfortable to stay within.

The most common negative gaming community culture would be the toxic gaming community. This gaming community culture exists today because there are too many toxic gamers (Wirtz, 2022). Online disinhibition inevitably affects most toxic gamers to misbehave during the games as the real identity of gamers is anonymous (Suler,2004).

2.3 Past Studies

2.3.1 Relating conversational topics and toxic behaviour effects in a Multiplayer Online Battle Arena (MOBA) game

This research paper was done by Neto and Becker in 2018. In this paper, the researchers investigate the main conversation topics used in one of the MOBA games, League of Legends (LoL), and the relationship between these topics and toxic contamination. Besides, the researchers also attempt to determine the effects of the conversational patterns used by League of Legends players and how these different conversational patterns will affect the gamer's performance and contamination. Finally, as mentioned by the researchers, the purpose of conducting this research is to determine whether the vocabulary analysis and toxic behaviour prediction developed by other researchers for Defense of the Ancients (DOTA), another MOBA game, will have the same result in League of Legends. As a result, the researchers found that players' performance would be better and lower contamination levels when the teams focus on positive topics. Besides, toxic behaviour will most likely occur when players, especially teammates, perform poorly during the game.

In my opinion, there is some relation between this research paper with Neto and Becker's research paper. From their research paper, I found out that they are also researching external factors such as how the frequency of getting toxic by teammates or enemies will affect the victim's behaviour. It is similar to one of the variables I am researching, which is how the culture of the gaming community affects the player's behaviour. This is because if the frequency of getting toxic by teammates or enemies is high, the victim will think that being toxic in the game is completely fine. After all, it is the gaming community's culture.

However, there is some limitation to this research paper. One of the limitations is that the researchers only focus on one game, League of Legends. Therefore, we can't assume that

other gamers from other games will also have the same outcome. Besides, there might also have other external factors that affect gamers being toxic in games, such as stress from work or school, anger from other places, and the intention of trolling their teammate because they think it is fun to do that. As such, we cannot say that gamers' toxic behaviour is only because of players' performance and match outcome but also other factors such as time spent playing the game, gamer's skill level on the game, and gaming community culture.

2.3.2 Toxic Behaviour in Online Games

This research paper was done by Saarinen in 2017. In this research paper, the researcher strives to determine how toxic behaviour affects online gaming. With this main research question, the researcher came up with two supporting questions: does the toxic behaviour affect the flow experience in the online game and the purchase made by online game players? Besides, the researcher also tends to find out what method gamers use to deal with toxic behaviour when encountering one.

As a result of the interview, the researcher discovered that toxic behaviour would affect online gaming negatively. Besides, the researcher also found that different types of toxic behaviour like flaming, griefing, and cheating will negatively affect the flow of online gaming differently. Last but not least, the researcher discovered that toxic behaviour would not affect the purchase made by the gamers. Throughout this research paper, the researcher tends to contribute by providing up-to-date information on the current status of toxic behaviour in multiplayer online games.

In my opinion, the limitation of this research paper is that all the interviewees in the interview are experienced gamers with over 10 years of gaming experience. As such, it is not fair to those new gamers as their opinion is also essential in identifying the toxic behaviour

among gamers. Hence, the limitation of this research paper will be covered in my research paper. Besides, the amount of interviewees is also small as it only consists of 6. Therefore, we can say that the data might not be accurate as 6 of them might not represent the whole gamers community. According to Dummies (2016), generalization is often a problem in research papers, while the researchers tend to conclude a larger population than the survey sample.

2.3.3 Towards a Unified Theory of Toxic Behaviour in Video Games

Kordyaka, Jahn, and Niehaves (2019) focus on this research paper that aims to explain toxic behaviour and propose a unified theory of toxic behaviour using three different theoretical approaches: social cognitive theory, theory of planned behaviour, and online disinhibition effect. The researchers propose a unified theory because no study has developed a theoretical explanation of toxic behaviour. As such, the researchers aim to provide a theory-driven explanation of toxic behaviour. The data used to propose the unified theory will be collected using a comprehensive survey. To propose a unified theory that can explain the toxic behaviour in multiplayer video games, the researchers came up with one research question: the influence of a wide range of potential drivers of toxic behaviour in multiplayer video games.

During the research period, the researcher also explored how toxic disinhibition, toxic behaviour victimization, attitude, and behavioral control shape toxic behaviour. As a result, the researchers have concluded that toxic disinhibition will mediate the effects of behavioural control and toxic behaviour victimization because of the feeling of being unidentifiable, which is the online disinhibition effect. Besides, the researchers also concluded that the theory of planned behaviour stated that gamers with a more favourable attitude towards toxic

behaviour tend to perceive higher levels of toxic disinhibition. In conclusion, combining three different theoretical approaches promising capture toxic behaviour.

In my opinion, overall, the research paper is comprehensive and well done. However, because the researchers aim only for LoL and Dota 2 gamers, the results might be inaccurate for other games, especially those with different genres. As such, it will be better if future research can be done on different games. Also, besides explaining gamers' problems with behaving toxically, I think it will be better if we explore more factors that lead to this issue.

2.3.4 Influences of Cooperation and Competition on Hostility between Teammates and Opponents in an Online Game

This research paper was carried out by McLean, Waddell, and Ivory in 2020. The reason for researchers conducting this research paper is to determine whether the cooperative and competitive elements inside online games will trigger gamers to behave hostilely against teammates and opponents. To answer the main research question, the researchers have come up with 3 sub-questions to explain the main research question in more detail. These 3 sub-questions consist of three common contextual features of games on player hostility: cooperation between teammates, environment competitiveness, and team affiliation. Environment competitiveness in this research paper refers to the desire of gamers to win the game. Usually, gamers tend to be more relaxed while playing casual mode compared to ranked mode, as the ranked mode will affect the ranked level of gamers and may lead to the demotion ranked. In games, ranked level refers to someone's position in the official best gamer list (Collin Dictionary, n.d.). As such, it can be said that the higher the ranked level, the better the gamer. Therefore, the researchers believed these three elements would largely contribute to player hostility.

As a result, the researchers found that over half of the 56 games involve toxic behaviour among gamers. Besides, all these toxic behaviours happened among teammates instead of the opponents, which means that cooperation between teammates is more likely to trigger toxic behaviour. The researchers explained this phenomenon because teammates have more conversations than opponents, as MOBA games need teamwork between teammates to win.

In my opinion, I think there are some limitations to this research paper. One of the limitations will be the field experiment without prior consent from the experiment subjects. It is impolite and disrespectful when the researchers randomly collect the data from others to conduct their experiment without their consent. As such, many issues may arise if the gamers discover that they are in the experiment without getting prior consent. This statement can be proved by one of the articles done by Desposato on 2018. According to Desposato (2018), he conducted a public opinion survey to investigate whether the public accepts field experiments with prior consent. The result came out with half of the respondents reporting that they were not willing to participate in the field experiment without prior consent. As a result, this proves that the data of this research paper shouldn't be used as it may cause harm to those experiment subjects.

2.3.5 Toxic Behaviours in Team-Based Competitive Gaming

Kou (2020) identifies five types of toxic behaviours: communication aggression, cheating, hostage holding, mediocritizing, and sabotaging. According to Kou, mediocritizing in games refers to the teammates or opponents who tend to scold the gamer for poor performance or bad decisions. It often happens, especially in competitive games such as MOBA games. Besides identifying five types of toxic behaviours, the researcher also tends to

find the five contextual factors that could lead to toxic behaviour: competitiveness, In-team conflict, perceived loss, powerlessness, and toxic behaviour. The researcher includes toxic behaviour as one of the contextual factors that lead to toxic behaviour because the researcher tends to find whether toxic behaviour will become a trigger for more toxic behaviours.

Throughout the analysis, the researcher found that toxicity is highly situated, dynamic, and mediated by gamer perception and interpretation. In more straightforward terms, the researcher researched contextual factors that are not inherently toxic but can act as triggers for gamers to behave toxically. The researcher also mentioned that toxic behaviour is not a sudden thing, but it is a process where gamers will react toxically when they receive contextual factors until a point where they can't hold their emotion anymore.

In my opinion, I think that the research method that the researcher used in this research paper is not likely can be accepted. This is because the data of this research method are entirely coming from the subreddit. Even though this subreddit is one of the largest LoL online forums, the credibility of the data is still suspected. Furthermore, this is because there are no systematic reviews of the contexts nor the ethical practices on the subreddit (Proferes et al., 2021).

2.4 Theoretical Framework

2.4.1 Social Cognitive Theory (SCT)

As SCT was briefly introduced in Chapter 1, this section will be explained more in-depth information about SCT. According to Vinney (2019), The origin of SCT was back to the series of well-known studies named "The Bobo Doll Experiments" Bandura and his colleagues conducted in the 1960s. In these experiments, some preschool children were exposed to an aggressive or nonaggressive adult model to see if they would imitate the

model's behaviour. After the experiments, the researchers found that children behave more aggressively when exposed to aggressive adult models. Besides revealing the children to a real-life aggressive model, the researchers also conducted a subsequent experiment using the same protocol, but the real-life model was changed to a film of an aggressive cartoon character. Through these studies to serve as the basis of ideas about observational learning and modeling, Bandura introduced Social Learning Theory in 1977.

According to Nickerson (2022), behavioral learning has five constructs: Reciprocal Determinism, Behavioural Capability, Reinforcements, Expectations, and Self-Efficacy. Reciprocal determinism refers to the seeking of one to develop a sense of agency and exert control over critical events. Reciprocal determinism is highly affected by self-efficacy, outcome expectations, goals, and self-evaluation factors. For example, when a gamer knows they will lose the game due to the skill level difference between their teammates and the opponent, the gamer will give up playing the match. Behavioural capability refers to a person's ability to perform a learned behavior. For example, when gamer observes other gamers' behavior, they will tend to find out whether they can imitate the observed behaviour. Moreover, reinforcements refer to the internal and external responses to a person's behaviour. These responses will either encourage or discourage the person from continuing their behavior. Positive reinforcement will encourage the person to continue behaving the behaviour, and vice versa. Furthermore, expectations refer to the anticipated consequences of a person's behaviour. If the person expects a negative outcome when they behave like that, they will tend to avoid behaving like that. Last but not least, self-efficacy refers to the level of confidence that one has in their ability to perform the learned behaviour successfully. For example, if the gamer feels confident in their ability to behave more toxically than the other gamers, they will continue to behave as such.

When there is an advantage, there will be a limitation. There are several limitations of SCT. For example, the SCT claimed that the changes in the environment would automatically lead to changes in the person. This statement may not always be workable because people sometimes will not be able to detect the changes in the environment; hence, they are not able to observe these changes. Besides, SCT focuses on the observational learning process too much. It claimed that a person's behaviours are more likely to be affected by environmental changes as they may observe and learn from them. However, a person's behaviour might be affected by their own factors, such as biological and hormonal predispositions. In addition, the person's emotion when they display their behaviour will also affect their behaviour. As a result, SCT can be modified accordingly so that the theory can be used in every aspect.

2.5 Chapter Transition

Next, this dissertation will proceed to Chapter 3, Methodology. The next chapter will discuss the research design, target sample, survey instrument design, research variables, procedure, alternative sample ways, and measurement methods.

Chapter 3: Methodology

3.1 Chapter Overview

This chapter provides insights into how the study is conducted. Details such as research design, target sample, survey instrument design, research variables, research procedure, alternative sample ways, and measurement methods will be discussed.

3.2 Research Design

The quantitative research method will be used in this research paper. According to Apuke (2017), quantitative research identifies statistical, mathematical, or numerical data from several techniques, such as online surveys, polls, and questionnaires. The result of the data is usually represented in the form of numerical. Non-quantitative data such as behaviour, patterns, and belief can also be converted into quantitative data by transforming it into a frequency (Sauro, 2012). For example, 5-point Likert Scales can identify a frequency, and numerical data can be collected. As such, this research paper that will study the toxic behaviour tendencies and gaming behaviour patterns will use the 5-point Likert Scale as the main instrument to quantitatively collect the behaviour patterns of UTAR Sungai Long Campus online gamers.

According to Williams (2021), there were 4 main quantitative research methods: Descriptive research, Correlational Research, Experimental Class Research, and Comparative Research. This research paper explains the toxic behaviour phenomenon and factors that lead to it using scientific sampling and questionnaires to collect large data sets. As such, Descriptive Research will be used in this research paper. However, Descriptive Research requires a large number of participants, and it has the restriction of the law of large numbers.

The law of large numbers refers to the research data will get closer to the average of the whole population as the sample size grows (James, 2020). As such, a minimum of 100 respondents will be received as the sample size of this research paper.

An online survey will be conducted instead of a physical survey to get a large sample size. This is because the online survey can reach a broader population among UTAR Sungai Long Campus.

3.3 Target Sample

As Descriptive Research limits the usage of sampling methods to nonprobability sampling methods, this research paper will aim to study UTAR Sungai Long Campus students that play online games. This is because it can avoid bias and be faster to sample, as probability sampling techniques require the researchers to know the participants so that a representative sample size can be chosen (Nikolopoulu, 2022). This research paper will use snowball sampling to make the sampling process easier and faster (Simkus, 2022).

3.4 Survey Instrument Design

A survey questionnaire of 12 items relating to the internal and external factors that affect toxic behaviour tendencies was designed as the primary research instrument for this paper. There are 4 sections – Section A, which is the Demographic section; Section B, which consists of questions answering RQ 1; Section C, which consists of questions answering RQ 2; Section D, which consists of questions answering RQ 3. This survey questionnaire consists of 8 multiple-choice questions and 8 5-point Likert scales for the participants to answer. In addition, 5-point Likert Scales were inserted into this questionnaire because there are

questions the participants need to answer based on their agreement with the statements mentioned in the questionnaire.

3.5 Research Variables

3.5.1 Independent Variables

Time spent on gaming

The time gamers spend on gaming will decide the gamers' familiarity with the game, such as the rules, the winning condition, the strategies, and the types of champions used. Similar to sports games such as badminton, football, and basketball, games require the gamer to spend time mastering the game. Therefore, it is interrelated with skills level, where gamers will need time and energy to gain knowledge and mastery to win the game. As such, it can be said that the more time gamers spend on gaming, the higher the mastery they can get in-game, and it will lead to gamers' egos and toxic behaviour, especially when their teammates are causing them to lose in games.

Skill levels

Skill level is an inevitable requirement in order to win a game. This is because if gamers have enough skill levels, they can outrun the enemies ahead or trounce enemies. Skill levels were manipulated by gamers' talent and time spent on gaming. As such, it can be said that skill levels will make the gamers more ego as they might think they are better than anyone. So, they can behave toxically towards others with lower skill levels than them.

Gaming Community Culture

In order to win the games, gamers must constantly communicate with teammates to complete objectives and defeat opponents. Therefore, like workplaces that also need constant communication, culture plays an important role. This can affect the teammates' productivity, desire to win the game, and engagement (Schuneman, 2019). As such, it can be said that positive gaming community culture will positively affect gamers' behaviour and vice versa.

3.5.2 Dependent Variable

Toxic Behaviour Tendencies

Gamers' toxic behaviour can be affected by multiple factors, such as emotion and stress from work or school. However, in this study, we will focus on the time gamers spend on gaming, their skill levels, and the gaming community culture that will also affect the gamers' toxic behaviour.

3.5.3 Demographic & Control Variables

Demographics such as gender, age, education level, and games that participants often play were included in this survey as it can help in the post-hoc analysis comparing different groups. In addition, control variables such as computer proficiency, cultural traits, personality, and emotion were also included in this survey to prevent unwanted effects on the outcomes of the research survey.

3.6 Research Procedure

Initially, an online survey form will be created using Google Forms. After the survey form is created, a pilot test will be conducted to ensure the feasibility of the survey form (Enago Academy, 2022). At the same time, the survey form will also give to UTAR professors and lecturers for expert reviews on the validation of the survey (Patel, 2019). After the survey validation is completed, Mr. Edwin, Advisor for this research paper, will request an ethical clearance from respective personnel. The period of the actual survey to be distributed is 3 weeks, from 24 October 2022 to 13 November 2022, as soon as ethical clearance is approved. The expected number of respondents for this survey is 100 – 150 respondents.

The distribution channel will initially be set to online social media platforms such as Facebook, Instagram, and Twitter. The survey will be sent to social media groups such as Facebook, Whatsapp, and Telegram to speed up the data collection.

3.7 Alternative sample way

An alternative way was coming out to prevent inadequate responses to the survey. If the number of respondents doesn't meet the expected number, a QR code for the survey will be created for physical distribution. The researcher will physically approach UTAR students to ask for a favor in filling out the survey. Candies will incentivize the respondents to increase their willingness to complete the survey.

3.8 Measurement Methods

The data collected will be transferred to a spreadsheet for data sortation. After the sortation, a descriptive analysis will be conducted. Descriptive analysis is a type of analysis that summarizes data collected constructively, such as through tables and graphs (Rawat, 2021).

3.9 Chapter Transition

Next, this dissertation will proceed to Chapter 4, Findings and Analysis. In the next chapter, we will examine the survey analysis and summary of the collected data.

Chapter 4: Findings and Analysis

4.1 Chapter Overview

This chapter provides insights into the survey analysis and summary of the data collected. All 102 respondents that participated in the questionnaires will be analyzed through descriptive analysis.

4.2 Survey Analysis

The following sections will mainly focus on categorizing into – Demographic Profiles, Time Spent on Gaming, Skills Level, and Gaming Community Culture. The collected respondents' data from Google Forms will be represented in charts and graphs. For 5-Likert Scale questions, there are 5 options for respondents to choose from, which are 1 (Strongly disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), and 5 (Strongly Agree) with the statements stated in the questions.

4.2.1 Demographic Profiles

The following few sections will present the respondents' demographic data, such as gender, age group, current educational level, and the online game that they often played. The sections will mainly be presented with pie charts and percentages added to the charts for a clearer explanation.

4.2.1.1 Gender

1. Gender Mark only one oval
102 responses

● Male
● Female

50%

50%
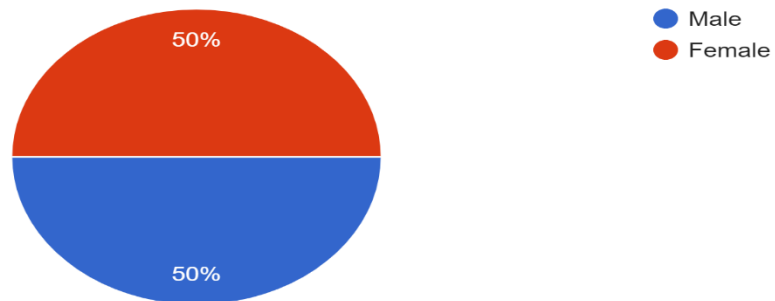
Figure 4.1: Gender Distribution of Respondents

Source: Developed for the research

There were a total of 102 responses to the survey questionnaire, and the percentage of

male and female were 50%, respectively. In simpler terms, there are 51 male respondents, and

51 female respondents participated in this questionnaire. As the questionnaire isn't limited to

single-gender, it is an excellent initiative to have female respondents' opinions on this topic.

4.2.1.2 Age group

2. Age Mark only one oval
102 responses

● 16 to 18 years old
● 19 to 21 years old
● 22 to 24 years old
● 25 years old and above

35.3%

8.8%

52%
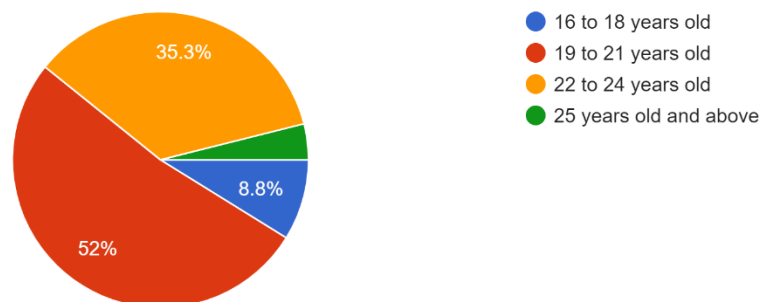
Figure 4.2: Age Distribution of Respondents

Source: Developed for the research

The pie chart above reveals the age range of the respondents who participated in this questionnaire. The highest percentage of the age group is from 19 to 21 years old, 52% among the 102 respondents. The second highest percentage of the age group is 36 respondents aged 22 to 24, 35.3% of the total respondents. These two age groups comprised 87.3% of the total respondents because the targeted audience for this questionnaire is gamers around Sungai Long Campus; hence, most of them should be aged around 19 to 24. Following that, 9 of 102 respondents are aged 16 to 18; 4 of 102 respondents are aged 25 and above.

4.2.1.3 Current Education Level

3. Current Education Level Mark only one oval
102 responses

- Foundation / other equivalent qualification
- Bachelor
- Master
- PhD

87.3%

11.8%

Figure 4.3: Current Education Level Distribution of Respondents
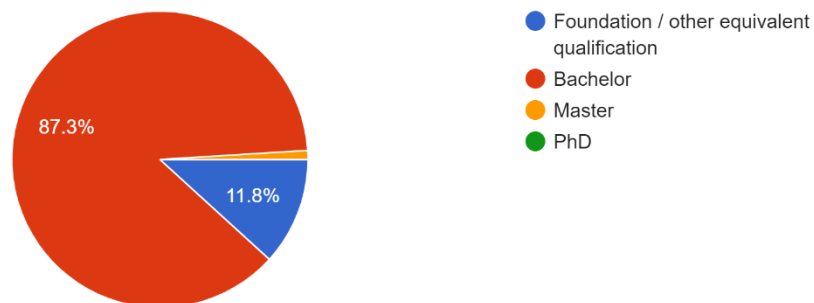
Source: Developed for the research

The figure above shows that most of the respondents are currently pursuing bachelor's degrees; of 89 respondents (87.3) while only one is pursuing a master's degree—followed by

the second highest, 12 respondents (11.8%) who are presently pursuing foundation. None of the respondents is pursuing Doctoral Degree (Ph.D.).

4.2.1.4 Online games that often played by gamers around UTAR Sungai Long Campus

4. What online game did you often play? Mark only one oval
102 responses

- ● League of Legend (LoL)
- ● Defence of the Ancients (DOTA 2)
- ● Counter-Strike Global Offensive (CSGO)
- ● Valorant
- ● Honor of Kings (王者荣耀)
- ● PUBG
- ● None
- ● Deep rock galactic, overwatch 2

▲ 1/4 ▼
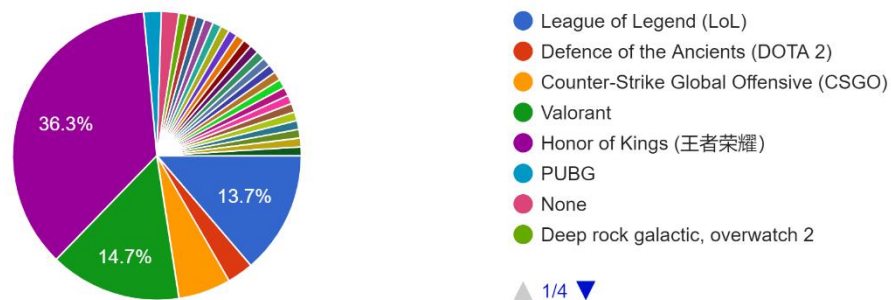
Figure 4.4: Respondents' favourite online game

Source: Developed for the research

The pie chart above illustrates the different online games often played by the respondents. The Honor of Kings (王者荣耀) has the greatest percentage among the other online games, with 37 respondents (36.3%) choosing it as their most often played online game. The second highest will be Valorant, with 15 respondents (14.7%) – followed by League of Legends (LoL), with 14 respondents (13.7%). In the meantime, 6 respondents often played Counter-Strike Global Offensive (CSGO), and 3 respondents often played Defence of the Ancients (DOTA 2). Other than that, there were many online games in the market for gamers; hence, respondents answered other options, such as Overwatch 2 (2 respondents), Player Unknown Battle Grounds (PUBG) (3 respondents), Apex Legends (1 respondent), Day By Daylight (1 respondent), and many other games.

4.2.2 Time Spent on Gaming

The following few sections will analyze the time respondents spend on gaming per week, how often the respondents are subject to toxic behaviour, how they behave toxically more frequently as they spend more time on gaming, and how respondents think about time spent on gaming will affect someone's behaviour negatively.

4.2.2.1 Games usage

1. How often do you play online games in a week? Mark only one oval
102 responses

- 1 - 3 hours
- 4 - 6 hours
- 7 - 9 hours
- 10 hours and above
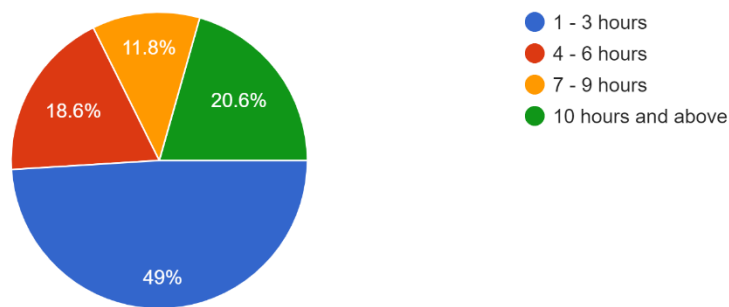
Figure 4.5: Time spent on gaming per week

Source: Developed for the research

Figure 4.5 shows that 50 respondents (49%) played at least 1 – 3 hours per week and 19 respondents (18.6%) played at least 4 – 6 hours per week. Besides, there were 12 respondents (11.8%) played at least 7 – 9 hours per week. Lastly, there were over 21 respondents (20.6%) claimed that they played at least 10 hours per week which is the second-highest response group.

4.2.2.2 Frequency of subjecting to toxic behaviours in games

2. How often are you subject to toxic behaviours while playing the game? (For example: Blaming your teammates, Giving up the games, Cursing your teammates) Mark only one oval

102 responses
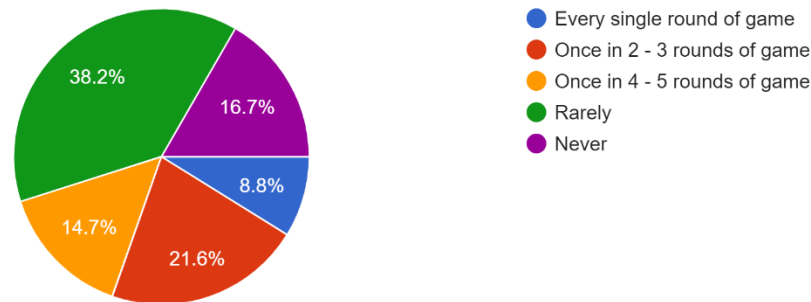
Figure 4.6: How frequently are respondents subject to toxic behaviours while playing the game

Source: Developed for the research

Figure 4.6 shows the frequency of respondents subject to toxic behaviours while playing the game. 39 respondents (38.2%) claimed that they were rarely subject to toxic behaviours, while 17 respondents (16.7%) claimed that they were never subject to toxic behaviours before. As for the rest respondents, 22 respondents (21.6%) were subject to toxic behaviours once in 2 – 3 rounds of the game, and 15 respondents (14.7%) were subject to toxic behaviour once in 4 – 5 rounds. As for the worse scenario in which the respondents were subject to toxic behaviours every round of the game, over 9 respondents suffered from this scenario.

4.2.2.3 Influence of time spent on gaming towards respondents' toxic behaviour tendency

3. I think that I am behaving toxically more frequently in games because the time I spent on gaming. Mark only one oval

102 responses
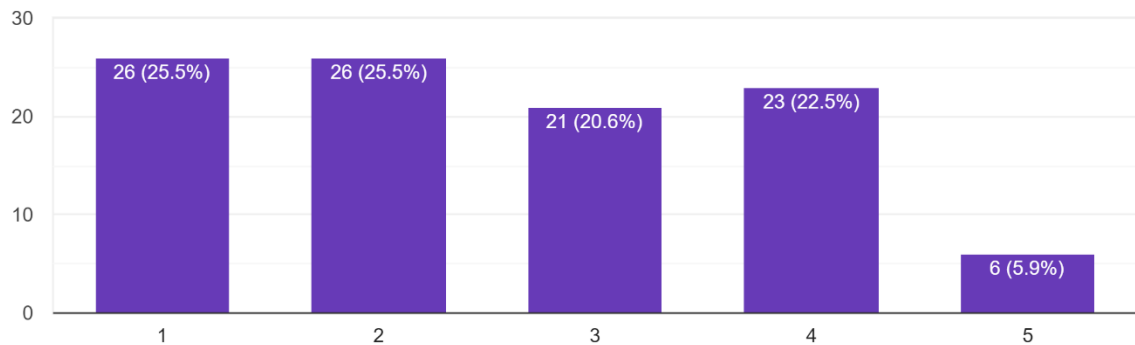
Figure 4.7: Respondents' toxic behaviour tendency due to time spent on gaming

Source: Developed for the research

This question measures the degree to how frequently respondents behave toxically in games due to the time they spend on gaming. 26 respondents (25.5%) strongly disagreed with the statement that they will behave toxically more frequently due to time spent on gaming. Also, 26 respondents (25.5%) disagreed with the statement stated in the question. Almost one-fifth of respondents are neutral towards their toxic behaviour tendency due to time spent on gaming, consisting of 21 respondents (20.6%). A total of 29 respondents claimed that they would behave toxically more frequently in the game because of the time they spent on gaming, consisting of 23 respondents (22.5%) who agreed with the statement and 6 respondents (5.9%) who strongly agreed with the statement.

4.2.2.4 Respondents' opinion on time spent playing games will affect someone's behaviour negatively

4. I think that time spent playing games will affect someone's behaviour in a bad way. (For example: Become more aggressive in game, Frustrated by small matters easily) Mark only one oval
102 responses
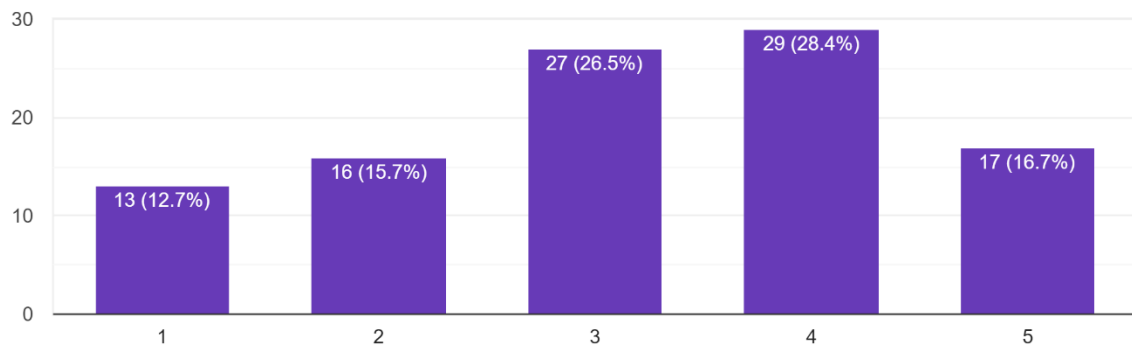
Figure 4.8: Opinion on time spent playing games will affect someone's behaviour negatively

Source: Developed for the research

This question measures how respondents think about time spent playing games will affect someone's behaviour negatively. Overall, the majority of the respondents agreed that time spent playing games would affect someone's behaviour negatively, with 29 respondents (28.4%) agreed, and 17 respondents (16.7%) strongly agreed with the statement. On the other side, 13 respondents (12.7%) chose "strongly disagree," and 16 respondents (15.7%) chose "disagree" as their opinion towards the statement.

4.2.3 Skills Level

4.2.3.1 Respondents' skills level

1. Do you consider yourself as an experienced player in online games? Mark only one oval
102 responses
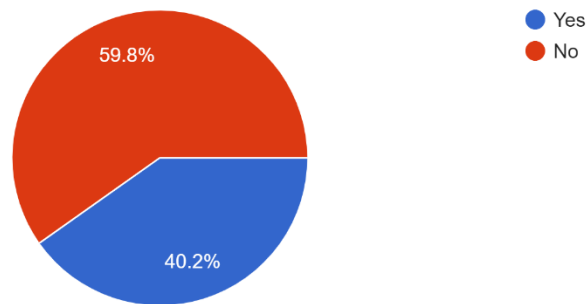
Figure 4.9: Respondents' skills level in online games

Source: Developed for the research

This question measures how skillful the respondents are in online games. 61 respondents (59.8%) claimed they are not experienced gamers in the game they played. 41 respondents (40.2%) claimed they are skillful gamers in the game they played.

4.2.3.2 How often are respondents subject to toxic behaviour by teammates or enemies because

of skills level

2. I am often subject to toxic behaviour by my teammates or enemies because they think they are more experienced than me. Mark only one oval
102 responses
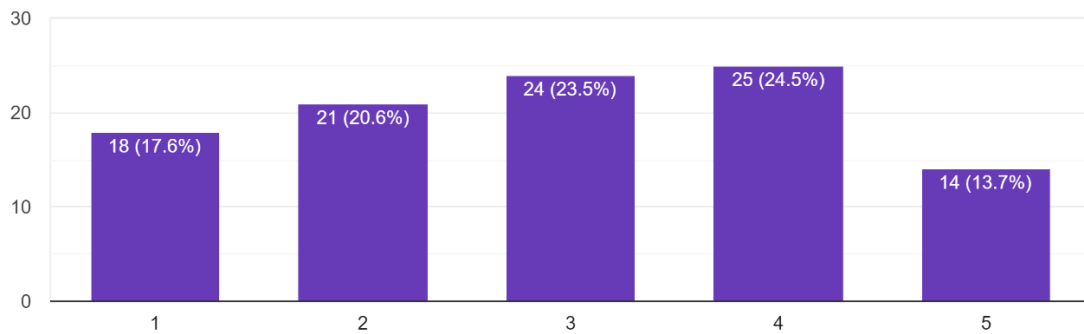
Figure 4.10: Frequency of respondents subject to toxic behaviour due to gaming skills

difference

Source: Developed for the research

This question measures how frequently respondents are subject to toxic behaviour by their teammates or enemies because they think they are more experienced than the respondents. According to the bar chart shown above, a total of 39 respondents (38.2%), consisting of 18 respondents (17.6%) chose "strongly disagree," and 21 respondents (20.6%) chose "disagree," claiming that they are not often subject to toxic behaviour by their teammates or enemies due to gaming skills difference. On the other side, the number of respondents that are often subject to toxic behaviour due to gaming skills differences is the same as those who disagreed with the statement, which is also 39 respondents (38.2%) in total, consisting of 25 respondents (24.5%) chose "agree" and 14 respondents (13.7%) chose "strongly agree." The remaining 24 respondents (23.5%) are unsure if they are often subject to toxic behaviour by teammates or enemies due to gaming skills differences.

4.2.3.3 Influence of respondents' skills level towards their toxic behaviour tendency

3. I think that it is okay to behave toxically when I am more experienced than others. Mark only one oval

102 responses
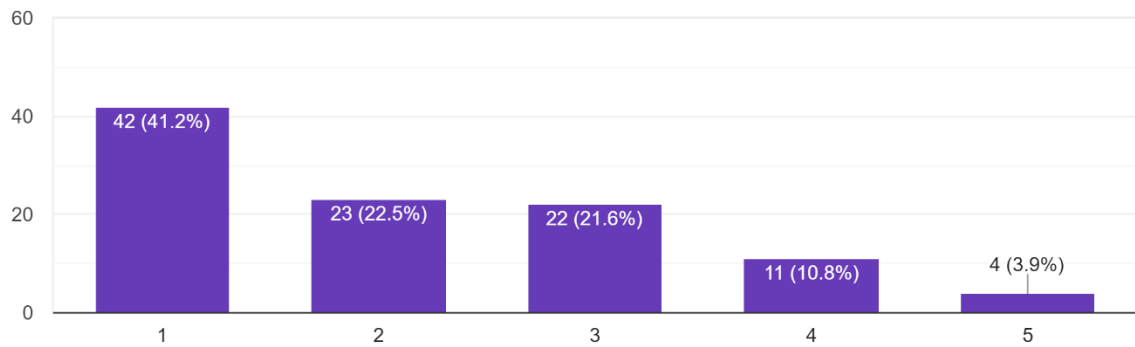
Figure 4.11: Respondents' toxic behaviour tendency due to their gaming skills level

Source: Developed for the research

This question measures the respondents' toxic behaviour tendency when they are more experienced than other gamers in the game they played. Figure 4.11 shows that 42 respondents (41.2%) claimed they would never behave toxically because of their skills level, while 23 respondents (22.5%) claimed that they would not behave toxically because of their skills level. In comparison, 11 respondents (10.8%) claimed that they would behave toxically because of their skills level, while only 4 respondents (3.9%) claimed that they would definitely behave toxically because they are more skillful than the other gamers. The remaining 22 participants (21.6%) chose "neutral" to answer this question, as they did not know whether they would behave toxically due to their skills level.

As a result, a total of 65 respondents (63.7%) claimed that they would not behave toxically even if they were more experienced than other gamers, while a total of 17 respondents (16.7%) would behave toxically if they were more experienced than other gamers in the game.

4.2.3.4 Respondents' opinion on skills level will affect someone's behaviour negatively

4. I think that skills level will affect someone to behave toxically. Mark only one oval
102 responses
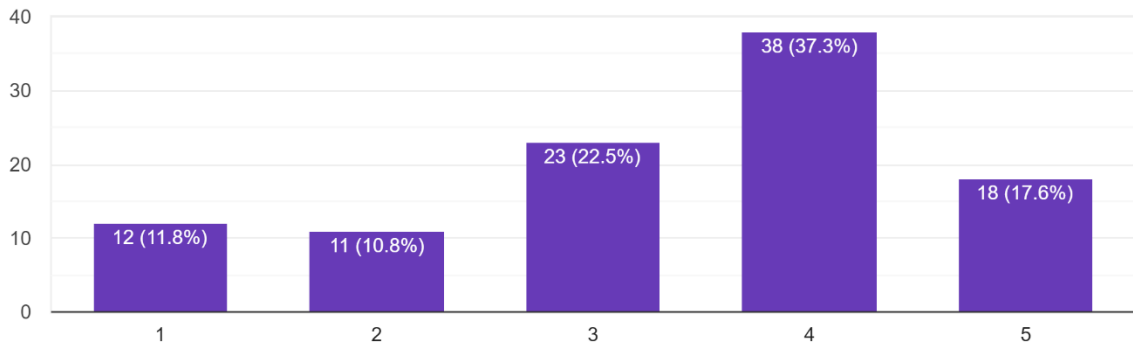
Figure 4.12: Opinion on skills level will affect someone's behaviour negatively

Source: Developed for the research

This question examines the degree respondents believe skills level will affect someone to behave toxically. According to the bar chart shown above, 12 respondents (11.8%) strongly disagreed with the statement, while 11 respondents (10.8%) disagreed. In comparison, a large portion of respondents agreed with the statement, consisting of 38 respondents (37.3%), while 18 respondents (17.6%) strongly agreed that skills level would affect someone to behave toxically in the game. The remaining 23 respondents (22.5%) are uncertain about the statement.

Overall, only a total of 23 (22.5%) respondents disagreed with the statement, while a total of 56 respondents (54.9%) believe that skills level will actually affect someone's behaviour badly, and 23 respondents (22.5%) remain "neutral" to the statement.

4.2.4 Gaming Community Culture

4.2.4.1 Toxicity of community culture of game played by respondents

1. Do you think that the culture of gaming community in the game that you are playing is considered toxic? Mark only one oval
102 responses
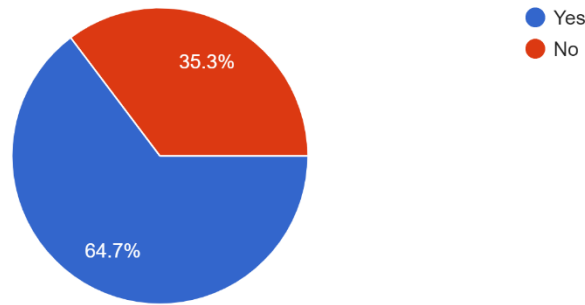
Figure 4.13: Perception of respondents toward gaming community culture

Source: Developed for the research

This question measures how the respondents think about the community culture of the game they played. According to the pie chart, the number of respondents agreed that the community culture in the game they are playing is toxic is 66 respondents (64.7%). On the other side, 36 respondents thought that the culture of the gaming community they are in is excellent and not toxic.

4.2.4.2 How often are respondents subject to toxic behaviour by teammates or enemies because of toxic gaming community culture

2. I was often subject to toxic behaviour by other teammates or enemies after one of my teammates or enemies started to behave toxically. Mark only one oval
102 responses
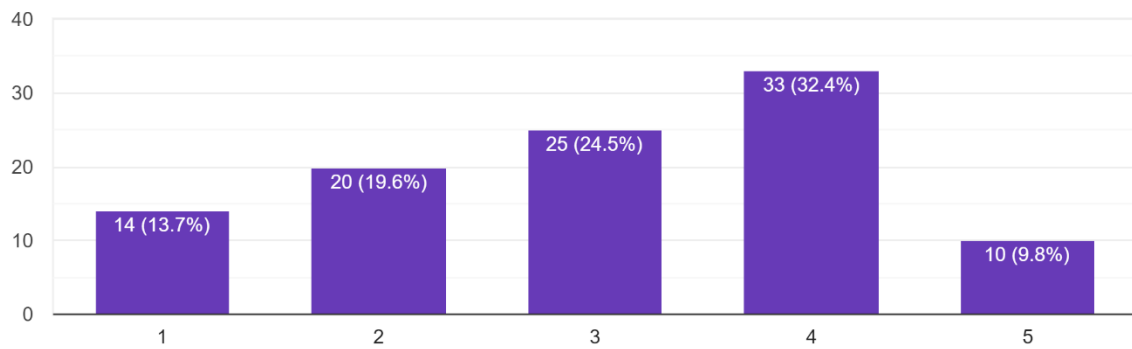
Figure 4.14: Frequency of respondents subject to toxic behaviour due to toxic gaming

community culture

Source: Developed for the research

This question measures how frequently respondents are subject to toxic behaviour by teammates or enemies because of the gaming community culture. 14 respondents (13.7%) strongly disagreed that they are often subject to toxic behaviour by other teammates or enemies because of the toxic gaming community culture, and 20 respondents (19.6%) disagreed with the statement. In comparison, over a portion of respondents agreed that they are subject to toxic behaviour after one of their teammates or enemies started to behave toxically, consisting of 33 respondents (32.4%), and only 10 respondents (9.8%) chose "strongly agree" to answer this question. The remaining 25 respondents (24.5%) are uncertain about the statement.

Overall, a total of 34 respondents (33.3%) disagreed with this question, while a total of 43 respondents (42.2%) agreed with the statement.

4.2.4.3 Influence of gaming community culture towards respondents' toxic behaviour tendency

3. I think that it is okay to behave toxically during online games when it is one of the gaming community culture norms. Mark only one oval

102 responses
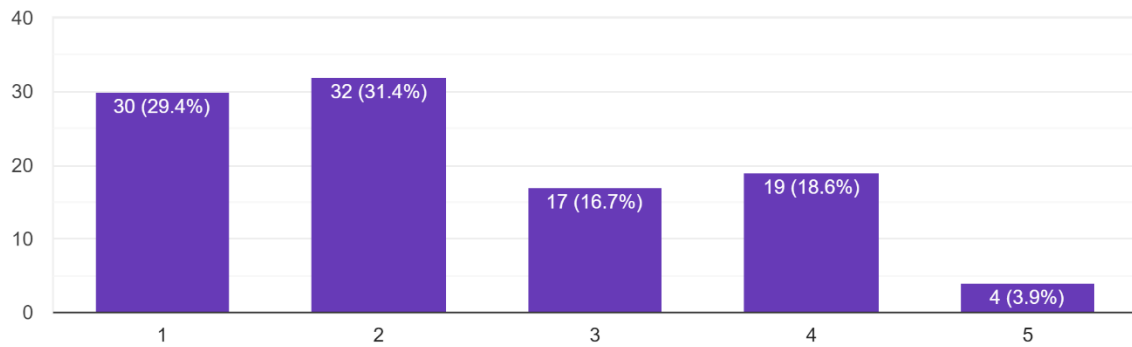
Figure 4.15: Respondents' toxic behaviour tendency due to gaming community culture

Source: Developed for the research

This question examines how respondents think about behaving toxically because it is a gaming community culture norm. The majority of the respondents claimed that it is not okay to behave toxically during online games when it is one of the gaming community culture norms, consisting of 30 respondents (29.4) chose "strongly disagree" and 32 respondents (31.4%) chose "disagree" – which sums up to a total of 62 respondents (60.8%). On the other side, only 19 respondents (18.6%) chose "agree," and 4 respondents (3.9%) chose "strongly agree" to the question – which sums up to a total of 23 respondents (22.5%). 17 respondents (16.7%) are neutral opinions.

4.2.4.4 Respondents' opinion on gaming community culture will affect someone's behaviour negatively

4. I think that the gaming community culture will affect someone to behave toxically as people will follow the culture norms set within the gaming community. Mark only one oval
102 responses
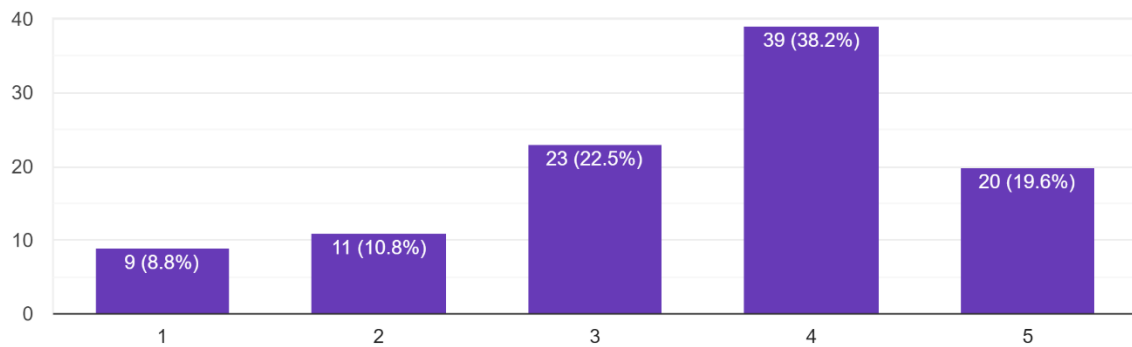
Figure 4.16: Opinion on gaming community culture will affect someone's behaviour

negatively

Source: Developed for the research

This question measures how the role of gaming community culture in affecting gamers' negative behaviour. According to Figure 4.12, 39 respondents (38.2%) chose to "agree" that the gaming community culture will affect someone to behave toxically. Among 102 responses, 23 respondents (22.5%) were neutral opinion, and 20 respondents (19.6%) strongly agreed with the statement. Meanwhile, a small number of respondents chose "disagree" and "strongly disagree" in this question – accounting for 11 respondents (10.8%) and 9 respondents (8.8%), respectively.

Overall, there are a total of 59 respondents believed that gaming community culture will affect someone to behave toxically, while a total of 20 respondents believed that the reason behind gamers' toxic behaviour is not gaming community culture.

4.3 Summary

In conclusion, a total of 102 responses were recorded to the questionnaire. All the responses are valid as the respondents are gamers around UTAR Sungai Long campus. All data collected are categorized and developed into pie charts and bar charts for greater clarity.

4.4 Chapter Transition

Next, this dissertation will proceed to Chapter 5, Discussion and Conclusion. The next chapter will discuss the questionnaire result inferences, discussion on major findings, limitations of the study, recommendations for future research and conclusion.

Chapter 5: Discussion and Conclusion

5.1 Chapter Overview

This chapter provides insight into questionnaire result inferences, discussion on major findings, limitations of the study, recommendations for future research, and conclusion. The discussion will determine whether the research objectives have been achieved and the research questions answered.

5.2 Questionnaire Results Inferences

According to the data collected in Chapter 4: Findings and Analysis, the proportions of male and female respondents were equal, with 51 male respondents and 51 female respondents. As this research paper focuses on online gamers around UTAR Sungai Long Campus, most respondents are from 19 to 24 years old, which are students pursuing bachelor's degrees. As shown in Figure 4.5, the majority of respondents spent around 1-3 hours on gaming per week. Furthermore, the data in Figure 4.8, Figure 4.12, and Figure 4.16 show that most of the respondents agreed that the three main factors: time spent on gaming, skills level, and gaming community culture, will affect someone's behaviour negatively. The obtained results are consistent with the researchers' studies mentioned in Chapter 2: Literature Review.

5.3 Discussion on Major Findings

RO1: To discover the relationship between the time UTAR Sungai Long online gamers spend on gaming and their toxicity tendencies in games.

<u>Time Spent on Gaming</u>

In the paper, 50 respondents claimed that they only played at least 1 – 3 hours per week, while over 21 respondents claimed that they played at least 10 hours per week which is the second-highest response group. This can explain the extreme difference between normal gamers and hardcore gamers, as the highest percentage of respondents are normal gamers, followed by hardcore gamers who played at least 10 hours per week. Hardcore gamers are those who play games in most of their leisure time. Additionally, most respondents were subject to toxic behaviours once during gaming, while only 17 out of 102 respondents claimed that they were never subject to toxic behaviour during gaming. As such, it can be said that most gamers suffer from a toxic gaming environment. This result is consistent with research conducted by Kou (2020), as the researchers stated that most of the gamers in League of Legends suffered from a toxic gaming environment. This paper proved that this issue also happened in other online games such as Counter-Strike: Global Offensive (CSGO), Defence of the Ancients 2 (Dota 2), Honor of Kings (王者荣耀), and Valorant. However, many respondents that suffered from toxic behaviours claimed that they would not behave toxically more frequently in games because of the time they spent on gaming. As such, other factors may affect these respondents to behave toxically more frequently in games. Even the respondents claimed that they would not behave toxically more frequently because of the time they spent in-game, they still think that time spent playing games will affect someone's behaviour negatively, as over 46 respondents agreed with the statement in Figure 4.8. In short, research objective 1 has been achieved as there is a relationship between time spent on gaming and toxic tendencies in the game, as most respondents claimed that they agreed that time spent playing games would affect someone's behaviour negatively.

RO2: To explore the frequency of toxic behaviour between experienced and newbie UTAR Sungai Long online gamers.

Skills Level

From the data, it is found that the proportions of experienced gamers and non-experienced gamers are roughly equal, with 61 respondents claiming that they are not experienced gamers. In comparison, 41 respondents claimed that they are experienced gamers. Regarding the frequency of respondents subject to toxic behaviour due to gaming skills differences, there was the same number of respondents agreeing and disagreeing with the statement stated, which is 39 respondents equally. As such, more respondents might be needed in future research to find more precise data on whether gamers will be subject to toxic behaviour by their teammates or enemies because of gaming skills differences. According to Figure 4.11, most respondents felt that it is impropriated to behave toxically when someone is more experienced than others, as over 65 respondents disagreed with the statement stated in Figure 4.11. However, most respondents also thought that skills level would affect someone to behave toxically. According to Figure 4.12, over 56 respondents agreed with the statement. As such, it can be said that the current gaming environment is toxic because of skills level differences; even the respondents felt that it is not good to behave toxically when there is a skills level difference. This can be said that the gamers are influenced by online disinhibition effect, which lead to they behave toxically even though they know that behaving toxically in game is a bad practise. As such, this result is consistent with research conducted by Kordyaka, Jahn and Niehaves in 2019 as the researchers explored that the feeling of being unidentifiable will mediate the effects of behavioural control and lead to toxic behaviour in online game. In short, research objective 2 was not completed completely as this paper could not find the frequency of respondents subject to toxic behaviour due to gaming skills difference.

RO3: To evaluate how the cultures of the gaming community affect UTAR Sungai Long online gamers ' toxicity tendencies in games.

Gaming Community Culture

Based on the results, there is a majority of the respondents, 66 respondents thought that the community culture of the game they played was toxic. Besides, 43 respondents claimed that they were subject to toxic behaviour by other teammates or enemies after one of their teammates or enemies started to behave toxically. This result is consistent with research conducted by McLean, Waddell, and Ivory in 2020, as the researchers found that cooperation between teammates and environment competitiveness will affect gamers to be more affiliated with their teammates or enemies. As such, when one of them starts to behave toxically, the other will be more likely to behave the same way. Furthermore, according to Figure 4.15, over 62 respondents thought it is not okay to behave toxically during online games when it is one of the gaming community culture norms. This proves that respondents did not want the gaming community culture in the game they played to become toxic, even if it is already considered toxic. According to Figure 4.16, the respondents agreed that gaming community culture would affect someone to behave toxically. This is because people will follow the cultural norms set within the gaming community. This result is consistent with research conducted by Neto and Becker in 2018. In short, research objective 3 has been completed as the result shows that gaming community culture is closely related to toxic tendencies in online games.

5.4 Limitations of the Study

Although the objectives of this study have been met, some limitations arose throughout the research process affecting the objectives not completely met. These limitations include the following:

Limited Sample Size

This research only collected 102 respondents who cannot represent the whole gamers in Malaysia or even globally. This is because of the time constraints of the research paper, which only consist of 21 weeks. As such, it is hard to examine whether the questionnaire results are accurate and valid.

Limited Target Audiences

As mentioned in Chapter 3:Methodology, the targeted audience for this research paper is limited to online gamers around Sungai Long Campus. As such, the targeted audience might not be representing other university students that are online gamers.

Closed Ended Questionnaire

As this research paper chose the quantitative method, which is distributing the questionnaire to participants, the respondents could not provide their in-depth insight into the question asked. As such, the results obtained are nothing but the surface of the problems. Even though the 5-point Likert scale is used in the questionnaire, the questions are still considered closed-ended, as participants could not provide any explanations for the answer they chose.

Too many "Neutral" responses

The survey results in Chapter 4: Findings and Analysis consist of too many "Neutral" responses in every 5-point Likert scale question. As such, it may negatively affect the quality of the study as the response "Neutral" is considered as the respondents did not know the concepts highlighted in the questionnaire or the questions are too hard to understand.

5.5 Recommendations for Future Research

To have a more in-depth study than the current research paper or further explorations on the topic, there are some suggestions that researchers can take note of:

- Research the topic with different research methods, such as qualitative methods, to get more open-ended questions to obtain more insightful responses.

- Extend the targeted audience to a larger area, such as all universities in Malaysia or all online gamers in Malaysia.

- Explore the other factors, such as family factors, peer influence factors, and workload factors, that might also affect gamers' behaviour

- Collect more responses in future research so that the result will be more valid and representable.

- Design the questionnaire to be easier to understand in order to reduce the number of "Neutral" responses.

- Provide more varieties of language options in the questionnaire so that more respondents from different ethnicities can be collected.

5.6 Conclusion

On the final note, this research focuses on exploring the factors that lead to UTAR Sungai Long online gamers behaving toxically and their perceptions on whether the factors will have effect on online gamers' behaviour negatively. By reviewing the results obtained with Social Cognitive Theory, this research paper able to to find out that how UTAR Sungai Long online gamers' behaviour during gaming affected by three main factors which are : Time Spent on Gaming *(Research Question 1)*, Skills Level Difference *(Research Question 2)*, and Gaming Community Culture *(Research Question 3).* All 3 research objectives were achieved in this

study by finding out how UTAR Sungai Long online gamers perceive to the effect of 3 factors on gaming bahaviour. The data researched proved that the current gaming environment was toxic, even though the gamers themselves claimed that it is bad practice to behave toxically during gaming, however, they still behave as such due to the influence of online inhibition effect. As such, it is the responsibility of online gamers to change the gaming environment into a more friendly and peace environment so that the future gamers will not have to suffer from the bad practice.

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7.0 Appendices

Section 1 of 5

Factors that lead to toxic behaviour tendencies among UTAR Sungai Long online gamers

Hi there!

My name is Yong Kok Sheng.

I am a final year undergraduate student of Bachelor of Corporate Communication (HONS) from Universiti Tunku Abdul Rahman (UTAR) Sungai Long Campus. This survey aims to explore the factors that lead to toxic behaviour tendencies among UTAR Sungai Long Online Gamers.

The survey participation is completely voluntary, and you are free to withdraw from the study at any time without any consequences. There is no potential risk or harm to you for participating in this research project.

If you have any questions regarding this research, please contact me at **s.k.yong@1utar.my**

Thank you for taking time to participate in this research project.

PERSONAL DATA PROTECTIONS STATEMENT

Please be informed that accordance with Personal Data Protection Act 2010 ("PDPA") came into force on 15 November 2013, therefore Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal data.

Disclaimer: The data collected will be kept strictly confidential and will be used for educational purposes only.

Section A - Demographic Profile

Please complete this section by choosing only **ONE** answer.

1. Gender *
Mark only one oval

○ Male

○ Female

2. Age *
Mark only one oval

○ 16 to 18 years old

○ 19 to 21 years old

○ 22 to 24 years old

○ 25 years old and above

3. Current Education Level *
Mark only one oval

○ Foundation / other equivalent qualification

○ Bachelor

○ Master

○ PhD

4. What online games did you often play? *
Mark only one oval

○ League of Legend (LoL)

○ Defence of the Ancients (DOTA 2)

○ Counter-Strike Global Offensive (CSGO)

○ Valorant

○ Honor of Kings (王者荣耀)

○ Other: _____

Back   Next   Clear form

Section B - Time Spent on Gaming

Please choose only **ONE** answer for each of the following questions.

Please indicate the extent, to which you agree or disagree with each statement by choosing the numbers given, ranging from:

[Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree =5]

1. How often do you play online games in a week? *
Mark only one oval

○ 1 - 3 hours

○ 4 - 6 hours

○ 7 - 9 hours

○ 10 hours and above

2. How often are you subject to toxic behaviours while playing the game? *
(For example: Blaming your teammates, Giving up the games, Cursing your teammates)
Mark only one oval

○ Every single round of game

○ Once in 2 - 3 rounds of game

○ Once in 4 - 5 rounds of game

○ Rarely

○ Never

3. I think that I am behaving toxically more frequently in games because the time I *
spent on gaming.
Mark only one oval

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

4. I think that time spent playing games will affect someone's behaviour in a bad *
way.
(For example: Become more aggressive in game, Frustrated by small matters easily)
Mark only one oval

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

Section C - Skills Level

Please choose only **ONE** answer for each of the following questions.

Please indicate the extent, to which you agree or disagree with each statement by choosing the numbers given, ranging from:

[Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree =5]

1. Do you consider yourself as an experienced player in games? *
Mark only one oval

◯ Yes

◯ No

2. I am often subject to toxic behaviour by my teammates or enemies because they think they are more experienced than me. *
Mark only one oval

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

3. I think that it is okay to behave toxically when I am more experienced than others. *
Mark only one oval

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

4. I think that skills level will affect someone to behave toxically. *
Mark only one oval

	1	2	3	4	5	
Strongly Disagree	◯	◯	◯	◯	◯	Strongly Agree

Back   Next   Clear form

Section D - Gaming Community Culture

Please choose only **ONE** answer for each of the following questions.

Please indicate the extent, to which you agree or disagree with each statement by choosing the numbers given, ranging from:

[Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree =5]

---

1. Do you think that the culture of gaming community in the game that you are playing is considered toxic? *
Mark only one oval

○ Yes

○ No

---

2. I was often subject to toxic behaviour by other teammates or enemies after one of my teammates or enemies started to behave toxically. *
Mark only one oval

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

---

3. I think that it is okay to behave toxically during online games when it is one of the gaming community culture norms. *
Mark only one oval

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

---

4. I think that the gaming community culture will affect someone to behave toxically as people will follow the culture norms set within the gaming community. *
Mark only one oval

	1	2	3	4	5	
Strongly Disagree	○	○	○	○	○	Strongly Agree

Back   Submit   Clear form