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Gender Inequality in eSports Participation:

Examining *League of Legends*

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Gender Inequality in eSports Participation:

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by

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Dedication

To my parents who believed in me throughout the long period of uncertainty

Dr. Jung-Moo Kim and Ms. Kwang-Ok Park

Abstract

Gender Inequality in eSports Participation:

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Traditionally, men are considered to have an advantage over women in sports. However, electronic gaming or eSports, where physical attributes are not as necessary, are still divided by gender. ESports is a growing industry. However, despite the fact that computers, game consoles, and even virtual reality technology have been introduced to appeal to genders equally, the majority of players still tend to be men. This research addresses male dominance in the eSports industry and examines strategies to encourage more female participation. Through a grounded theory analysis, this study explores the essential differences between the genders in gaming and introduces solutions for improved recognition of eSports and video games among women. The study concludes with a recommendation for constructing an enhanced environment for eSports players.

Table of Contents

List of Tables

Introduction

In 2016, a female professional *Overwatch* player SeYeon Kim, known by the gamer tag "Geguri" was accused of employing an illegal program to enhance performance. Geguri proved her innocence by live streaming a video of her playing without any illegal hacking programs. After her video aired worldwide, the debate disappeared, but questions remained. The most important question was why Geguri, a teenaged female, had to defend her abilities at all. According to Luke McKinney, who wrote an article about Geguri's situation in the online website *Cracked*, the underlying issue in this situation was the belief that "a teenage girl was incapable of playing expertly without illegal assistance." Geguri's accusers were so confident she was using a hacking program that some professional players even announced that they would retire from their professional career if Geguri's skills were legitimate. Despite death threats, Geguri went public, wearing a mask during her live stream when proving her skills. When a spokesperson for the company Blizzard, the creators of *Overwatch*, confirmed that Geguri was not cheating, questions of female harassment became part of the Geguri phenomenon. Had Geguri had been a man, these issues might have never emerged (McKinney, 2017).

Women are underrepresented in many fields, and a vast amount of literature proves that gender stereotypes are still common in the United States and most often other parts of the world (Eagly & Mladinic, 1989). In traditional sports, gender stereotypes remain strong resulting in a predominant belief that women are inferior athletes, and biased media portrayals of female athletic ability. A widely shared believe is that men will outperform women (Bois, Sarrazin, Brustad, Trouilloud, & Cury, 2002; Eccles & Harold, 1991) especially in sports involving strength, power and speed (Chalabaev, Sarrazin, Stone and Cury, 2008).

In eSports, however, gender stereotypes are more difficult to understand because of the unique nature of this sport. Although there is no physical contact, aggressiveness is part of eSports and both fans and players understand the value of aggressive play. In Multiplayer Online Battle Arena (MOBA) games, active and aggressive moves by players satisfy a desire for online ferocity in sports. Moreover, other eSports games such as *Counter Strike: Global Offensive* is popular in part because it provides opportunities for shooting to kill an opponent as the primary objective of the game (Hamari & Sjöblom, 2017). ESports, while not physical, are complex and deeply satisfying. ESports can be defined as "a form of sports where the primary aspects of the sport are facilitated by electronic systems; the input of players and teams as well as the output of the eSports system are meditated by human-computer interfaces" (Hamari & Sjöblom, 2017). It would seem that the stereotypes that discourage female's participation would be less valid in this online environment since eSports lacks great physicality and winning an eSport game does not mean physically overcoming an opponent" (Jenny, Manning, Keiper & Olrich, 2016). However, as the eSports and video gaming industry are becoming increasingly popular, a solution is necessary to strengthen and develop its foundation; ridding itself of the stereotype that female players have disadvantages which will help lessen the restriction for females to join the male saturated gaming market might be the solution. According to the Entertainment Software Association, in 2016, women made up 41% of the gaming population in the United States of America. The popularity of eSports makes it an interesting subject of study for the field of sport management. Research into the motivation for participation and consumption of eSports is expected to show close relationships to the attitude we hold about regular sport (Essential Facts, 2016).

While female participation in eSports is increasing, mainstream electronic games are still dominated by men. Nevertheless, female gaming is being promoted in various ways. According to a BBC report, some female gamers are fighting discrimination and encouraging other women to play. In 2016, Deloitte reported that revenues from eSports were predicted to rise by 25% to $500 million that year. Moreover, they expected a global audience of more than 150 million people (100 Women 2016, 2016). Stephanie Harvey, a famous female professional gamer, hopes that large enterprises support female tournaments and female players, "because, in the end, you need money to compete, but ultimately the goal is that these female tournaments do not exist anymore because there's no need for it (100 Women 2016, 2016, para. 18)." Because Harvey believes women have a place in gaming, she thinks of ways to promote women participation and one of the solutions are having more female developers create the games. Harvey believes that as participation increases, the discrimination will decrease since women will not be a minority anymore (100 Women 2016, 2016).

In addition to the players themselves, some technology companies are also repositioning as the new market is being revealed. For example, Twitch, a website that live streams gaming, began hosting Misscliks, a female gaming support community. According to Anna Prosser Robinson, a programming manager and onscreen personality at Twitch, "the main goal of Misscliks is to provide support and resources to encourage those women to create a network on Twitch and stay in eSports (Schmidt, 2016, para. 14)." This occurred three years ago when the some of the founders were disappointed by the dearth of women in the eSports market. Twitch also established Inclusivity City, an area for diversity organizations (Schmidt, 2016). AnyKey, a diversity initiative created by Intel and ESL to increase the number of women in eSports, organized a women-only eSports tournament in Katowice, Poland. Morgan Romine, a former

eSports player and Director of Initiatives at AnyKey, stated in an interview that she saw women-only tournaments as a means of strengthening players' skills and advancing them to open competitions. "There is a lot of work that needs to be done, giving more women confidence and experience in that space," she said (Schmidt, 2016, para. 19).

There will even be a movie on finding ways to break the gender barrier for female competitors. Agustin Gonzalez and Nicole "Wulf" Maldonado, both filmmakers and gamers, have been developing a documentary titled "Fight Like a Girl." This documentary is about three female *Super Smash Bros.* players, Victoria "VikkiKitty" Perez, Pricila "Port" Sortino, and Taylor "Xaltis" Rose and displays the issues female gamers face in the real world currently. Nicole described some important factors that motivated her to develop this documentary.

> I set out on a mission when I got back home to hit up some groups and start a female team. I want to get women together, play together, and get better and compete. So that is how Sweet Synergy was born. On the same day that I proposed the idea of a team, it blew up. It was so overwhelming I ended up having to start different teams. The fact that there were girls that were willing to play three or four times a week, even if they did not do well they still competed to show their presence; that made a huge difference. The whole *Heroes of the Storm* community ended up supporting Sweet Synergy because we had not yet seen an all-female team. There are women that are getting together to play, and that is what we want to create, at the end of the day we want to level the playing field**.** So, the goal of Sweet Synergy, in essence, was just to have a good time and compete and make ourselves present. It is not a gender specific thing; it's not just men that can compete, women can too (Mitrevski, 2017, para. 9).

These movements are certainly increasing women's interest in electronic gaming, but if the social barriers are to be eliminated, we need radical improvement in gender equality in eSports.

A major site in the battle for gender equality is the country South Korea. South Korea is one of the largest eSports markets and its participants are expected to highlight a crucial aspect of current gender issues in eSports and solutions for gender equality in the future. As eSports is a relatively new form of sports, there are not a recognized global sports tournament like the Olympic Games or the FIFA World Cup yet. However, if one were to ask what the foremost country in eSports expertise was, most would specify South Korea. Concentrating on *LoL*, compared to other regions, Korean teams have collected the most trophies in the League of Legends World Championships, which is a global competition where the best teams of each continent(servers) play a tournament. The regions and seed differ by each tournament, but for the 2017 League of Legends World Championships, teams from the following regions participated: Brazil, China, Commonwealth of Independent States, Europe, Japan, Korea, Latin America-North, Latin America – South, North America, Oceania, Southeast Asia, Taiwan, Hong Kong, Macau, and Turkey. From these regions, the best 16 teams create a tournament, and configure the final winner (Chopper & Feargorm, 2017).

From a history of six total tournaments, South Korean teams have taken the final trophy home four times. Many interpretations exist why Korea is such a strong country in *LoL*, and other electronic games and the longest exposure to games, talented coaches and players are some of the main reasons (Leavitt, 2016). An article from *The Richest* states that "South Korea is the undisputed gaming capital of the world" (Lanier, 2014, para. 30). Lanier continues explaining Korean eSports culture:

Professional gamers in South Korea are cultural icons, much as NFL stars are in America ….. Gaming culture is pervasive in the land that brought us kimchi and "Gangnam Style." Major gaming tournaments are televised on national television and watched religiously by millions of fans. They get so into gaming in South Korea that people have literally died in the middle of a game, presumably in the quest for the nerdiest epitaph ever. (Lanier, 2014, para. 30).

South Korea is not a gender-equal nation, but as a major eSports market it provides an interesting site for understanding gender issues in eSports. Currently, fights for female participation and recognition in eSports and the gaming industry not only pervaded the eSports community in South Korea but also affected the feminist movement in Korea (McKinney, 2017). Using grounded theory, this study aspires to understand social patterns of gender discrimination in eSports culture today. This grounded theory approach aims to understand the boundary conditions of this phenomenon to help construct theories that will help future gender equality in eSports using data analyzed from online, email, and personal interviews.

Literature Review

Evolution of eSports

      Electronic games are a massively successful industry today and acknowledging the

growth of this trend is important. The gaming industry, now known as eSports, was cited as "the

biggest thing to hit the games market since the launch of the iPhone in 2007" by Peter Warman,

the CEO of Newzoo a data analytics service (Young, 2016, para. 7). The "gaming industry" did

not start with computer games however. It was not until 1980 that personal computer games

started to rise. According to an article by Chikhani, one of the major factors of the personal

computer boom was the 1983 North American video games crash, where too many game

consoles were created and the games became less interesting than before. Almost at the same

time, the home computers such as the Commodore Vic-20, the Commodore 64 and Apple II

started to be popular, and were affordable for the average Americans around the early 1980s

(Chikhani, 2015). Because these new computers had faster processors compared to the consoles,

a new era of gaming emerged which resulted in multiplayer gaming. Computer games before this

era had similar objectives as arcade, console, and video games. Video and console games had to

be connected to television sets while arcade games were public, stand-alone machines that you

paid to play. Games like *PACMAN,* were usually designed so you tried to beat the high score on

the machine. Arcade gaming started gaining interest in 1966 and 1967 when Sega and Taito

released such simple games such as *Periscope* and *Crown Special Soccer*. Atari inspired the first

large-scale gaming community in 1972 when they started using the term "arcade" and released

the first real electronic video game, *Pong.* Arcade machines emerged in bars, shopping malls,

and other public spaces while the arcade boom continued to the mid-1980s (Chikhani, 2015).

There are debates of what the first electronic game is known to be, but *Tennis for Two*, a virtual table tennis game, created in 1958 by William Higinbotham was one of the first video games that were recognizable to a modern audience (Lynch, 2016). The debatable predecessors of *Tennis for Two,* was "Cathode-Ray Tube Amusement Device", which was created in 1948 by Thomas T. Goldsmith Jr. and Estle R. Mann. Compared to *Tennis for Two,* this device was different because the game's visuals were not entirely displayed on the screen. Cathode-Ray Tube Amusement Device had to overlay pictures and illustrations of targets in front of the screen. Other arguments are the Nimrod computer, created in 1951 by Ferranti International and "*OXO*" which was an electronic version of *Tic-Tac-Toe*, created in 1952 by A.S. Douglas at the University of Cambridge. These two were actually not created for entertainment, but had a gaming aspect (The First Video Game, n. d.). But aside from the objectives, "*Tennis for Two* had created a way to portray an image of a tennis court and allowing players to control a movable ball seen on a screen, just like a modern video game," which is fair to call *Tennis for Two* the first electronic game (The First Video Game, n. d., para. 18). The first commercial computer with a monitor was PDP-1 made by Digital Equipment's in 1959 which was equipped with a CRT monitor. This helped the gaming industry develop (Dalakov, n.d.) In 1962, Steve Russell invented *SpaceWar!,* which was developed by the Massachusetts Institute of Technology. *SpaceWar*! was the first game that was to play on a computer platform (PDP-1). In 1967, Ralph Baer created the Brown Box the first gaming console, along with *Chase*, which was the first video game playable on a television set. 1971 was when the first arcade game, *Computer Space* was created. In 1975, Atari released *Pong* as the first home video game on a console. *Pong* became very popular in that era, and the sales of the gaming systems began to skyrocket. Arcade games were popular from 1977 to the late 1980s. The well-known games such as *Pac-Man,*

Donkey Kong, and *Space Invaders* were particularly successful in this era. The first consoles that were playable on home televisions, *Odyssey*, were invented in 1972 by Magnavox. The console was programmed with 12 games (Stack, n.d.; Bellis, 2016).

The first game tournaments began in the 1980s. Atari held its first Space Invaders Tournament in 1980. This tournament attracted more than ten thousand participants and is known to have "sowed the seeds of what would eventually become eSports." In the 1990s, Nintendo, a video gaming company, and Blockbuster, the home movie and video game rental service, began to sponsor world championships. These championships successfully triggered competitive gaming in different forms. Edwards states that the First-Person Shooter (FPS) game *Quake*, is considered the first eSport as it was played in the Red Annihilation Quake Tournament, sponsored by Microsoft and held at the 1997 Electronic Entertainment Expo (E3) in Atlanta, Georgia, USA (Edwards, 2013). According to an interview by Baker, the winner of this tournament, Dennis "Thresh" Fong, is listed in the *Guinness Book of World Records* as the first professional gamer in history, earning a used red Ferrari 328GTS convertible and $5,000 as the winning prize (Baker, 2016).

However, the rise of eSports cannot be explained without Blizzard Entertainment's *StarCraft,* released in 1998. *StarCraft* was created for the PC platform, and allowed online matching so that players could compete with complete strangers. With its highly complex play and strategy, a divide between serious and recreational players developed and fans began observing a new group of pro players. Interest in watching expert players ignited in South Korea shortly after the games launch and within 18 months of the introduction of the game, matches were broadcast as part of a professional sports league on Korean television (Lynch, 2016). This

occurred in the late 1990s to the early 2000s, an era when games that required careful thought and long-term strategizing were popular. Since *StarCraft* offered almost infinite strategies, it became a driving force in the eSports world (Edwards, 2013).

Introduction of MOBA and *LoL*

Since computers were first introduced and utilized, numerous studies have been conducted to discover what makes men—more than women—familiar with electronic gaming. This research examines gender issues surrounding *"League of Legends"* by Riot Games because it has dominated the online market since 2012 and is considered the most popular electronic game worldwide. *League of Legends (LoL)* has an estimated 100 million players worldwide, and its fans play the game for more than one billion hours a month (Paul, 2017). Moreover, in eSports and the new culture of streaming (or spectator games), the Multiplayer Online Battle Arena (MOBA) is known to be the most enjoyable of all gaming formats. Despite several classifications of electronic games, MOBA games are most similar to traditional sports as they all have a simple goal, which is to create strategies as a team and perform specific gaming skills; the complexity of the execution of that goal provides enjoyment. MOBA and traditional sports have obstacles impeding players from accomplishing what they set out to do, and the players generate excitement among spectators who watch them overcoming these challenges (Everson, 2013).

LoL, a MOBA game created by Riot Games is currently considered the most appealing eSport game worldwide, and has always been a significant market in electronic games (Erzberger, 2016). Statista, a statistics portal, also analyzed that the most-played PC game on gaming platform Raptr in November 2015, was *LoL*, constituting 22.92% of all games (Statista, 2015). According to the official infographics regarding the 2016 League of Legends World

Championships published by Riot Games, 370 million people viewed the games during the

tournament, and it was broadcast in 23 forms of media in 18 languages (Bradmore & Magus,

2016).

Figure 1.
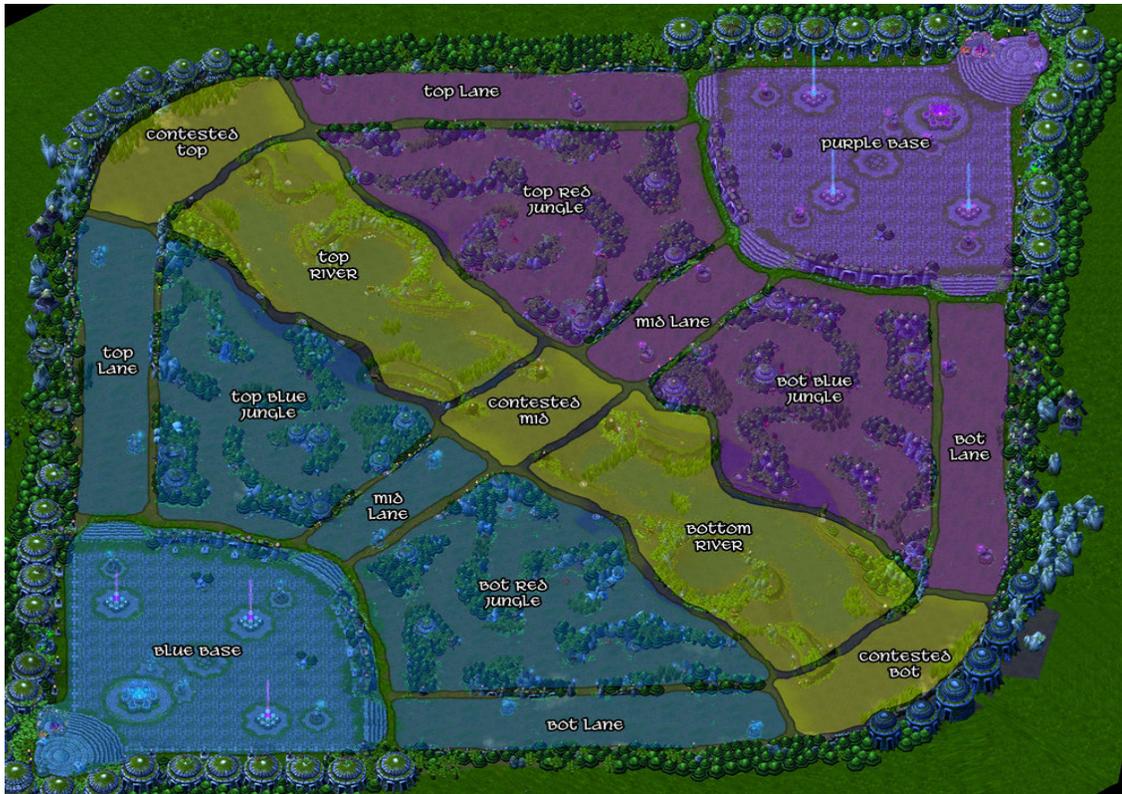
Clarifying the concept and roles in *LoL,* a team consists of five players. The Summoner's

Rift is the main map for the 5:5 matches and Figure 1 illustrates the basic format (Narishm,

2013). The players are divided into specific roles. The top laner proceeds to the uppermost

section of the map and fights one on one, the mid laner proceeds to the center of the map and

fights also fights one on one, Attack Damage Carry (ADC) and Support proceed to the bottom

together and fight two versus two, and finally the Jungle moves around the map, fighting the

neutral monsters in the jungle to acquire money for items and "gank" lanes either assisting them or taking advantage. The characteristics of roles differ in each case, but top laners usually are less aggressive but need perseverance until team fights occur. Mid-laners are the most skilled and aggressive players since their strength increases faster than other lanes, and they are vulnerable to ganks from opponents as both sides are accessible to ganking routes, while the top and bottom lanes have only one ganking route each. The bottom lane is more complicated. Usually, the ADC is both the most aggressive and most passive player because he/she needs to be kept alive while dealing the most damage from the team when necessary. A support player is one who helps the ADC grow without being ganked and usually die in the ADC's place if a gank is inevitable. A jungler is a clever player who needs to move around the map without being discovered.

LoL has five players that are all assigned specific roles just like traditional sports. Hence, it is interesting to watch the one-on-one fights as well as the sudden attacks that junglers create during the game. The appeal of MOBA games in eSports is explained in detail by a Red Bull article. Leah Jackson, an eSports reporter and associate editor at Imagine Games Network (IGN) states:

> MOBAs are fun to watch because there is always something happening. With five people on a team, someone is always making an interesting or unique decision, performing a crazy play, or lining one up. In traditional sports and other competitive games, there is much waiting, but MOBAs are nonstop action from start to finish (Partridge, 2014, para. 21).

In addition, the way they are broadcasted can gain and maintain spectators. Not only the convenience of streaming the games online but also the expertise of broadcasters helps the

12

audience understand the match better. ESports has created a new type of internet personality –

the shoutcaster. The PR director of Twitch known as Chase further explains the popularity of

MOBA games from a spectator standpoint with these shoutcasters performing their roles:

> These games are inherently complex and hard to understand from an outsider's
>
> perspective, so what makes them good spectator sports is how they are presented. It is
>
> their insights and enthusiasm that both educates and entertains spectators about what is
>
> happening, making it easier to understand and enjoy the games.

Moreover, this feature of providing spectators with an omniscient viewpoint increases the

popularity of MOBA games and eSports (Partridge, 2014). An analogy from an article by Justin

Everson published on the GameSkinny website also explains the dynamics of MOBA games.

> If you are a poor basketball player, you can still understand what takes place in the game
>
> and be excited by it, and the same applies to MOBA games. You can come in with a
>
> small amount of outside knowledge and skill and not only understand what takes place in
>
> a game but enjoy it. That enjoyment is the key to success in both… Be it seeing a perfect
>
> timed three-point shot or a well-executed gank, what's the same is that there is something
>
> there for you enjoy. The MOBA genre boasts some of the most popular games in the
>
> world, as well as some of the most popular eSports titles. Be it the ease and simplicity of
>
> understanding the mechanics that drive the game, or the excitement of a well-timed play,
>
> they continue to impress (Everson, 2013, para. 3).

Given the popularity and factors that align with the entertainment element of traditional

sports, *LoL* and MOBA games are an excellent research subject to predict the future of sports as

well as diagnose current social issues. However, the definition of sports may be a barrier for

electronic games being acknowledged as sports, as the term sports define games using physical

skills, "such as balls and hoops, game boards, board game pieces, and playing cards for games of strategy, and dice, used in games of chance" (Chick, 2015). Some formats of gaming which are similar to *Checkers* originated from back to 3,000BCE, found in ancient city of Ur in modern day Iraq (Oxland, 2004). Evidence of sports and game have been found around the world in forms of pictures, but the definitions were arbitrary. Allen Guttman also defines sports as "nonutilitarian contests which include an important measure of physical as well as intellectual skill" (Guttman, 2012, p. 7).

Current State and Vision of Electronic Games

Not only eSports itself but also the video game streaming method is becoming a rapidly developing form of new media (Hamari & Sjöblom, 2017). Newzoo, a company that studies the electronic gaming market, estimates that 93 million Americans are active in traditional sports. However, 194 million regularly play video games, implying that twice as many regular athletes are a potential market for competitive video gaming. Essentially, 194 million is approximately 61% of the population (Apstein, 2016). A statistic created by NewZoo in 2015 informs that the population of South Korea is 49.8m, while the online and gamer population is 42.8m and 25.2m respectively (South Korean, n.d.). This means that 50.6% of the Korean population are gamers. Known as the predecessors of eSports, South Korea does not have a higher percentage of gamers, but the culture has much to share, such as the PC Café culture, which is a venue with high-tech computers where you pay an hourly rate to play games. Even though restrictions exist for gaming hours, which the children under 18 years of age need to leave before 10 PM because of the concerns of addiction, the reason Korean electronic gaming professionals are dominating the eSports scene derive from these unique cultures (Mozur, 2014).

Video game watching is another rapidly growing industry. Nowadays, using the new streaming methods provided from Twitch, YouTube, and many other platforms, a gamer can both broadcast or spectate an electronic game. Broadcasting is just like a live individual television program, where people are willing to watch the plays and learn from the broadcaster. It is simple as getting onto one of the platforms that provide streaming, and search for the live broadcaster to join his show (Twitch and Shout, 2015). As technology rapidly advances, the world has been introduced to a new form of communication, streaming media. This method is advancing the eSport industry (Partridge, 2014).

Statistics reveal that in 2013, more than 70 million individuals watched *LoL* during the year (Warr, 2014). Newzoo announced that there were 32 million online viewers of the 2013 League of Legends World Championship. Moreover, the 2014 League of Legends World Championship finals attracted 40,000 fans to the Sangam Stadium, built for the 2002 FIFA World Cup Korea/Japan. According to an article "Is computer gaming sport?" published by the BBC, despite South Korea being famous as the cradle of eSports, it is now a thriving business in Europe and North America. Moreover, the highest eSports prize pool is sometimes higher than traditional sports, and top players in eSports receive earnings of £1m (Borg, 2014). Usually, the earnings of professional gamers consist of salaries paid from the gaming team they are contracted in and the prize money from the competitions that are granted by the creators of the game and sponsors of the event (Knocke, 2016). The *Business Insider* also states that *LoL* is the largest eSports game, attracting 27 million viewers during its broadcast of the 2015 World Championships. In 2016, the League of Legends World Championship was held in the United States, and the primary venues were Madison Square Garden and the Staples Center, the home stadiums for the National Basketball Association (NBA) and the National Hockey League (NHL)

(Rozelle, 2016). As the growth potential for eSports becomes obvious, many companies and firms are preparing for the new era. According to an article published in the *Sports Business Daily*, the Philadelphia 76ers and the venture firm NextEquity acquired majority stakes in two leading eSports franchises, Team Dignitas and Team Apex. Thus, the Philadelphia 76ers were the first American sports organization to obtain a professional gaming team (Fisher & Lombardo, 2016).

Controversies Regarding Men vs. Women in eSports (Electronic Games)

Because of the evident gender disparity in electronic sports, research studies identifying the individual strengths and preferences of men and women in the field of competitive gaming have successfully revealed different results in their abilities in various grounds such as mental, physical and innate (Shen, Ratan, Cai, & Leavitt, 2016). Moreover, in-depth research on gender-based stereotypes was successful not only to inform how gaming behaviors differ by gender, but also emphasizes that performance disparities are biased against females, and they do not have differences in ability (Walton & Spencer, 2009). Additionally, studies from Cassell and Jenkins stated that exposure to electronic gaming could serve as an entry point for females to computer related fields (Cassel & Jenkins, 1998).

Ray's research suggests that the gender differences in video gaming are due to men's strengths in spatial relations and the tendency to enjoying competition compared to women. Women, conversely, were more interested in collaboration and gave more importance to communicating and achieving a goal, rather than winning and surpassing someone (Cassel & Jenkins, 1998; Ray, 2004). Another major difference in gender is the difference in perceiving winning and losing. According to a study by Miller, men are motivated by competing and

obtaining the highest score, while women are not as concerned about winning and losing (Miller, 1996). Women often prioritize an emotional result as winning, while men need to win with a significant score or result (Ray, 2004). Women also tend to dislike how electronic games are designed to terminate when there is a failure. For example, early games reset the players to the first phase when they failed to achieve a mission. Men were relatively satisfied with that feature. However, women rather enjoyed the second chance to achieve the goal and not be punished for failure (Miller, 1996).

Other studies view the gender divide differently. According to one 2015 study, women were not as confident about their gaming abilities compared to men, even though they have sufficient levels of skill. (Shen, Ratan, Cai, & Leavitt, 2016). However, studies proved that this was not because of the gender disparities, but the women's way of learning a video game. (Blumberg & Sokol, 2004). In other words, it may show that women are reluctant when picking up skills for electronic games, trying to play passive roles rather than active roles, but it is all about being a novice and an expert. From these investigations, gender differences do not come from their nature, but from experience they have in gameplay (Shen, Ratan, Cai, & Leavitt, 2016).

Other research has been conducted to discover the differences between men and women who play electronic games. From a study about gender performance gap in Massively Multiplayer Online (MMO) Games, women who play video games do not possess inferior performance (the speed of character advancement) compared to men (Shen, Ratan, Cai, & Leavitt, 2016); however, women do not play as frequently as men and quit playing eventually. Most studies examine the reasons why women do not play as much as men and the results from those studies explain that the firm perpetuation of the stereotype that women are inferior to men

in gaming performance discourages female players from playing video games (Brown, Hall, Hotzer, Brown & Brown, 1997). These beliefs for women will impede performance development (Chan, 2008) and consequently result in a disparity between men and women at the competitive level. Furthermore, gender bias applies to perception inequalities. For example, a study by Ratan, Fordham, Huang, and Strayer (2015) found that gender stereotypes sometimes lead women to perceive men as being more suited for science, technology, engineering and mathematics (STEM) fields (Ratan, Fordham, Huang, & Strayer, 2015). Also, studies regarding performance in women sports showed that when a stereotype was created, the performance and effort decreased. In depth, stereotype threat may affect individuals in giving fear that they will be evaluated based on that stereotype. **(**Steele, 1997; Steele, Spencer, & Aronson, 2002; Chalabaev et al., 2008). Concentrating on the motor performance stereotypes, a study in 2006 proved that male golfer's performance was lower than that of women when they were told that women tend to perform higher than men in putting skills (Beilock, Jellison, Rydell, McConnell & Carr, 2006).

These studies suggest that women perform as well as men do, and the gender differences in performance do not come from the gender itself, but the individual characters of the gender. Furthermore, gender stereotypes hinder equal participation in not only eSports but also the entire field, leading to a "self-propagating, vicious cycle that has negative repercussions in unquestionably meaningful contexts that exist outside of gaming" (Shen et al., 2016).

All the facts, theories, and study results combined maintain that women are not inferior to men in playing games. In other words, women are not only capable of learning complex games but will also enjoy them. The limitations are environmental factors of male dominance and external factors such as sexual harassment. Additionally, game designers should not produce

games that suit women but attempt to discover how they approach the game. Since women are empathetic and enjoy friendly introductions, the method of presenting the game should be altered. Some of these problems can be solved if game designers present the information intuitively (Ray, 2004). Moreover, game designers and researchers need to discover male and female gaming characteristics and try to incorporate common attributes to generate interest among both genders.

Gender in American Context

Although the United States has laws that make it illegal to discriminate based on gender, studies show that gender stereotypes still cause bias in work performance assessments and that women earn less than men on average (Reskin & McBrier, 2000; Kolb, 2008). Workplace statistics show that women earn less salary than men in most of the occupations (AAUW, 2014). Moreover, women tend to respond to social expectations for appropriate / ideal behavior (Eagly & Karau, 2002). Known as gender role theory, previous studies state that women have communal characteristics, such as being socially oriented, assistive, nurturing and sympathetic. Compared to women, men are known to have agentic characteristics, which can be explained as competitive, ambitious, independent, and task-oriented (Eagly & Karau, 1991, 2002; Kidder, 2002). The divisions of genders create diverse effects, leading to perceptions that women are apt for "pink-collar", or feminine jobs such as teachers, nurse and secretaries, which are undervalued from jobs what men have (Britton, 2000).

According to the *New York Times*, the gaming industry has largely ignored women's achievements in eSports. Women have been making games since the 1970's when Carol Shaw, a designer that worked for Atari created a game of digital polo for a campaign for Ralph Lauren.

According to Suellentrop, the first game to be commercially released, which was designed by a woman, is Shaw's *3-D Tic-Tac-Toe* for Atari 2600 in 1980. In the same year, Dona Bailey programmed *Centipede*, which is an arcade shooter played in Atari. Ms. Shaw also designed *River Raid*, for Activision in 1983. Moreover, Roberta Williams wrote *King's Quest* in 1984 (Suellentrop, 2014). From a survey conducted by the International Game Developers Association. women still compose 22 percent of the gaming industry (Conditt, 2016). Men still dominate the industry, but women had an adequate effect in creating the gaming industry, which currently stand as one of the biggest industries.

Gender in Korean Context

Since the development of their open-door policy, Koreans are perceived as being increasingly liberal and gender relations are more equal in South Korea. However, in 1988, people were different. According to a research paper by Kang and Morgan, examining Korean and American culture via television, Korean females are more "progressive" and "liberal" while Korean males are more "traditional" and "conservative." (In the United States, males are less likely to be "conventional.") As the research explained:

> Yet while Korean females overall are sharply and significantly less likely than males to endorse strict adherence to traditional norms about obeying parents (46 percent vs. 72 percent) and more likely to object to the idea of an arranged marriage (63 percent vs. 50 percent), they remain more likely than males to uphold certain "moral" perspectives, such as the belief that unrestricted dating is unethical (64 percent vs. 51 percent), or the perceived importance of discussing dating with parents (59 percent vs. 40 percent). (Kang & Morgan, 1988)

20

From a more recent study of women in the Korean context by Lee, more evidence of Korea's conservative characteristics is found. Korean women are still one of the lowest in the world in economic activities. The statistics from Organization for Economic Co-operation and Development (OECD) indicates the rate of women's economic activity. However, Korea marks 57.0% while other countries such as Japan is 66.0% and the United States of America is 67.1% (OECD, Employment Outlook, 2015). These numbers represent the low rank of Korean women's economic activity rate compared to other OECD countries. The biggest influence of gender inequality is created from Confucianism. Confucianism emphasizes the importance of social and traditional values, where "social order, harmony of family, respecting authority and elders, loyalty" (Kim & Park, 2003. P. 44). Confucian traditions also highlight different gender roles, where women have childcare and domestic duties while men are focused on economic activities to support their family (Sung, 2003). Because of these traditions, women were forced to take care of the household, which led to less opportunity in workplaces. (Lee, 2017). Moreover, as Korea is a male-centered nation, the Korean society had a tradition of favoring sons to daughters (Kang & Rowley, 2005. P. 227), and companies had tendencies to dismiss women employees to create more job openings for men (Kim & Finch, 2002).

As culture has strong effects on people's behavior, understanding difficulties of females in Korea and where their behaviors lead to is essential (Hofstede, 1994). These studies indicate that overall Korea is a conservative nation with traditional cultural opinions. South Korea is a significant source to study gender inequalities in culture and the eSports industry.

Gender and Sport

As gender role theory suggests, women in the United States faced great hindrances advancing in their career paths (Eagly & Karau, 2002) and affected women in traditional sports. Before 1970, women were excluded from technical courses, and professional schools had limited quotas for women admission. Only nursing teaching, social work, and library science were not limited.

However, the Title IX of the Education Amendments of 1972, which was the federal antidiscrimination law, impacted not only women rights in general in the United States but helped the female stereotype change significantly. For example, in 1972, 1 out of 27 high school females played varsity sports, but in 1988, it was not 1 out of 3 high school females. Moreover, future participation rates are expected to grow for women (Lopiano, 2000) and more recent research states that the number of women of all ages and college aged women in particular participating in organized sports are increasing substantially (Acosta & Carpenter, 2008; Sabo & Veliz, 2008).

Even though improvements in the perception of women's sports have been made, it largely continues to be organized as sports that are relatively less difficult. Accordingly, in the current commercialized sports media culture, women's sport is less watchable and therefore profit making (Pavaldis & Connor, 2016).

Media coverage is also biased. Previous studies have found differences how men and women athletes were covered in televised media (Duncan, Messner, Williams, & Jensen, 1990; Higgs & Weiller, 1994; Kahn & Goldenberg, 1991). For example, from a study by Higgs and Weiller (1994), during the 1992 Olympic Games, women commentaries were concentrated more on the personalities of the female athletes compared to their athletic abilities. Also, when male

athletes were described, words aggressive and powerful were used numerous times (185), while

for females it was significantly less (68) (Higgs, Weiller, Martin, 2003).

Since Title IX gave opportunities for women to participate in traditionally male sports

such as "combat, strength, and weightlifting, bodybuilding, ice hockey, boxing, and hammer

throwing" (Pfister, 2010). Moreover, research has shown that physical differences exist between

those women who were exposed to sports, and those who have not participated. Families are now

promoting female sport participation to promote these positive physical and mental gains for

girls, while physicians are paying attention to female sport injuries realizing differences of

injuries between genders (Lopiano, 2000).

Numerous studies regarding the gender differences in participation, interest, and

performance in sports demonstrated that compared to females, males have a higher tendency of

practicing sports (Fredricks & Eccles, 2005; Gibbons, Lynn, & Stiles, 1997; Papaioannou,

Karastogiannidou, & Theodorakis, 2004). Also, research proved that males had a tendency to

perform better in motor tasks, using strength, power and speed (Bois, Sarrazin, Brustad,

Trouilloud, & Cury, 2002; Eccles & Harold, 1991).

Even in fantasy sports, discrimination exists. According to an article by Kissane and

Winslow, fantasy sports is played by 33.5 million people (FSTA 2013) in America. However,

this market is male dominated, and 80% of the participants in fantasy sports are male.

Additionally, it has been shown that males invest more time in fantasy sports, participating much

intensively (FSTA 2013; Ruihley and Billings 2013; Kissane & Winslow, 2016).

According to a research by Farrell, Fink, and Fields, women were still shaped as sport

consumers by men, which emphasizes that the current sport culture is indeed dominated by men.

Even when women did actually have interest in sports, they were not recognized by the men. (Farrell, Fink, & Fields, 2011).

How eSports are similar to Traditional Sports

Just like traditional sports, eSports possess interesting elements that fans can enjoy. Results of a study considering the reasons why people watch eSports indicated that the motivational factors were: 1) escaping everyday life, 2) acquiring knowledge from eSports, 3) uniqueness and 4) enjoyment of aggression (Hamari & Sjöblom, 2017).

The acquisition of knowledge is a key characteristic of eSports. First, a large proportion of eSports spectators plays some of the games themselves (Hamari & Sjöblom, 2017). Though spectating traditional sports also provides ideas on how to perform well in that particular sport, since traditional sports are more physical, outdoor practice is required to acquire new skills. However, eSports focuses on strategy and critical angles that help viewers gain knowledge by simply watching professionals play. Moreover, previous research has revealed that appreciating a professional player's skills is a significant motivational factor in sports (Milne & McDonald, 1999). Also, studies show that even though it is still a male dominated market, a large percentage of women do play eSport games (Lee & Schoenstedt, 2011).

Now many corporations have noticed the popularity of eSports, and they have been starting to sponsor the eSports market because of the repeated exposure of brands to the target market (Chaney, Lin, & Chaney, 2004). Moreover, as electronic sporting games are becoming a popular form of leisure activity (Lee & Schoenstedt, 2011), it is valid to think of the eSports market as sector to explore gender inequality.

Gender Portrayal in Electronic Games

Previous studies of gender representation in video games demonstrate a gender-biased environment. For example, analysis have found that video games include more male characters than female characters (Beasley & Collins Standley, 2002; Dietz, 1998; Heintz-Knowles & Henderson, 2002; Smith, Lachlan, & Tamborini, 2003). Also, the female video game character portrayals were infrequent and generally sexually objectified (Beasley & Collins Standley, 2002; Dietz, 1998; Heintz-Knowles & Henderson, 2002). These aspects may appeal to males, but for females, these characterizations are poorly suited for females (Ivory, 2006). Findings of Funk and Buchman's report of a questionnaire of adolescent girls in 1996 shows a negative relationship between video game play and self-perception. The roles played by male and female characters in games are also different. From research by Ivory regarding gender representation in online reviews of video games, it turned out that active male characters were mentioned in 75% of the reviews, while active female characters were described in only 33% of the reviews. Moreover, even though female characters were underrepresented, their sexuality and attractiveness were discussed much more than that of the male characters (Ivory, 2006).

Gender and Aggression

A study conducted by Anderson and. Bushman defines aggression and violence as following:

> "Aggression is behavior intended to harm another individual who is motivated to avoid that harm. It is not an affect, emotion, or aggressive thought, plan, or wish. This definition excludes accidental acts that lead to harm, such as losing control of an auto and accidentally killing a pedestrian, but includes behaviors intended to harm even if the attempt fails, such as when a bullet fired from a gun misses its human target. Violence

refers to extreme forms of aggression, such as physical assault and murder. All violence

is aggression, but not all aggression is violence" (Anderson & Bushman, 2001).

One of the perceptions people have when discussing gender and aggression is that

women do not favor violence. For example, research suggests that non-aggressive games attract

more women while shooting and role playing games are dominated by men (Nielsen, 2009;

Trepte, Reinecke & Behr, 2009). Recent studies by Hartmann and Klimmt (2006) discovered that

women were less interested in competitive, violent and social interaction opportunities,

compared to men.

However, Barber insists in his article (2015) in *Psychology Today* that "**m**odern women

are behaving much more like men when it comes to risk-taking and aggression." Barber's

example is the increased participation of women in contact sports and relatively dangerous sports

such as car racing. Cashdan adds that "in societies where women compete more amongst each

other whether in occupations or over spouses, their levels of stress hormones and testosterone

increase" (Cashdan, 2008). Barber states that even though many evolutionary psychologists still

predict that females will continue to be less violent than men as they are more risk-averse and

less violent, women are getting more dangerous. As the society is changing to accept more

women in leadership positions and women do not have passive lives compared to the past, the

future women can always challenge the current gender stereotypes (Barber, 2015). As connecting

the findings to electronic sports, the men domination can be explained by the fact that compared

to women, men play more hours of games in general (Lucas & Sherry, 2004), creating more

experience in playing electronic games (Williams, Consalvo, Caplan & Nee, 2009)

Earlier Studies and the Need for the Present Study

Several studies of video games primarily deal with the effects on children's growth and their physical and health related drawbacks for children. For example, research attempting to discover whether violent video games influence human aggression (Anderson & Bushman, 2001) and research that links obesity to video game usage (McMurray, Harrel, Deng, Bradley, Cox, & Bangdiwala, 2000; Vandewater, Shim, & Caplovitz, 2004) are common. Studies that also insist that gaming can have a positive effect on people including children are also emerging. Because gamers always try to solve problems and collaborate with the others to overcome virtual challenges, they pertain socially positive skills (McGonigal, 2011). Although playing of video games has historically been biased to present negative outcomes in social deviance and isolation, the act of gaming represents complex and interactive social process. (Johnson, 2005). Essentially, research on video games primarily debates if they negatively affect individuals or not.

Combining traditional sports and electronic gaming, studies have been made that identify the impact of video games on traditional sports athletes (Bowers, 2011) and their effectiveness in aiding athletes to mediate their play (Silberman, 2005). However, exploring the essence of electronic games and eSports is relatively recent. Video games had existed before the term eSports was coined (Ray, 2004). However, this was before the competitive gaming boom, and gender issues, in general, were not widely discussed. Research has become necessary to figure out the newer trends of gender and video gaming, conducting more research on these sociological theories.

Recently, a quantitative approach to identifying gender disparity in gaming was conducted. The objective of the study was to find out if females and males played differently and if males advance faster than females in Massively Multiplayer Online (MMO) games, which is a

mission-oriented online multiplayer game. Results revealed that improvement in women's

performances was as good as men if not more (Shen et al., 2016). However, limitations of these

studies were that they are not covering all the video games in the market, and these games are

not the most played games. For this reason, possibilities of getting different results depending on

what electronic game is studied occur, requiring further research apart from data and statistical

analysis.

Academic research has focused on Massively Multiplayer Online (MMO) games instead

of MOBA games (Shen et al., 2016). The other significant research area has been electronic

games where have focused on different aspects of gender inequality (Dietz, 1998; Ivory, 2006;

Jayanth, 2014; Ratan et al., 2015). To understand the current trend and status of gender biases,

the need to utilize the most popular eSport component is necessary (Gaudiosi, 2012). Moreover,

previous studies have predominantly adopted quantitative approaches that may more effectively

validate new theories from the researcher's studies since they have a larger number of samples.

However, studies employing grounded theory are creative and flexible in approach. Moreover,

each analysis will be intensive, increasing the possibility of a new perspective (Cho & Lee,

2014).

After choosing the grounded theory approach, to limit the presupposition to the product

of this current study, selected materials were reviewed. However, since eSports has not been

thoroughly researched and may be unfamiliar to many scholars, this researcher selected limited

literature related to eSports trends and fundamental introductions to understanding the future of

competitive gaming better. The literature on general gender biases and a brief overview of

studies concerning competitive gaming and the current status of eSports has been introduced.

Additionally, this section considers previous studies are providing a broad overview of preceding theories and findings.

Consequently, this research aims to examine the social and environmental atmosphere of experienced video-gaming individuals and interpret additional findings that quantitative and other qualitative research cannot identify. This research will thus focus on developing a theory regarding reduced Korean and American female participation in eSports and the role of both men and women in gender equality in competitive gaming.

Method

Research Design

Given that we are analyzing social phenomenon, the researcher employed grounded theory to interpret the data. Grounded theory provides the flexibility of a framework for understanding social processes without being affected by existing studies (Charmaz, 2006; Glaser & Strauss, 1967; Strauss & Corbin, 1994). Essentially, we did not establish a hypothesis first but attempted to gather adequate data from interviews with participants who had sufficient experience and expertise in *LoL*. The definition and approach of grounded theory are appropriate for this research due to the characteristics of the research questions. The responses are related to social issues and are expected to provide a variety of opinions from diverse sources. Moreover, eSports is a rather unmapped field, justifying the utilization of grounded theory that specializes in analyzing unexplored research. Grounded theory was adapted when pre-existing theories regarding theories and social processes were not present (Strauss & Corbin, 1994). By using grounded theory, this study will provide patterns and enable the researcher to identify the problem flexibly (Charmaz, 2006). Moreover, the primary objective of constructing a theory was achieved by examining all responses with minimal limitations (Charmaz, 2006; Glaser & Strauss, 1967).

However, grounded theory is controversial procedurally and the diverging approaches from different grounded theorists such as Glaser and Strauss have provoked debate (Corbin, 1994). The classic grounded theory method that insists delaying the literature review until completing the analysis is disputed by some (Glaser & Strauss, 1967). Charmaz argues that modern scholars tend to necessitate the importance of previous research and relative

contributions. To combine the original and modern approach to grounded theory and accommodate the needs of modern scholars, Charmaz states that research should review previous literature to extend knowledge and clarify ideas (Charmaz, 2006). To guarantee a strong research design, we decided to follow Charmaz's constructivist grounded theory as it is consistent with our perspective.

The process began with two sections: first, a survey with multiple short and long questions. Second, intensive interviews were conducted. Instead of employing perfunctory formats such as collecting surveys with simple questions without interaction, the primary researcher attempted to obtain as much data with Charmaz's intensive interview method. Since the survey contained broad, open-ended questions, it was expected to provide interesting indications. The subjects were not compelled to participate in the survey and interview and both were conducted at the interviewee's convenience to ensure participants' honest opinions were provided (Charmaz, 2006). Some participants did not wish to do an in-person interview and survey. They were provided an option to submit an online survey and interview, with written down responses. These participants' responses were textually analyzed to obtain significant results (Charmaz, 2004).

This study's primary objective is to not only create a new theory but also to strengthen existing theories. However, to ensure the legitimacy of an emerging theory was not hindered, this research selected a limited amount of literature to review (Creswell, 2012). Accordingly, research from academic journals to articles from diverse media has been chosen to utilize the present analysis and establish this particular research objective.

Acknowledging the necessity of grounded theory, we ensured concepts were coded and categorized to develop a theory. Specifically, we employed the theoretical rules recommended by

Strauss, Corbin, and Charmaz and every response from the interviews and surveys was meticulously transcribed to discover both the most important aspects of the creation of a new theory and ideas that support or undermine an existing theory. This study complied with all the procedures stipulated by the Institutional Review Board (IRB). Moreover, as assured, participants' identities were not disclosed, and all files were deleted after transcription and coding.

Sample and Context

In grounded theory, initial sampling is conducted to establish sampling criteria (Charmaz, 2006). The researcher collected the initial samples for this particular study based on the prerequisite that participants possessed knowledge in eSports and specifically *LoL*. Individuals who participated in the survey were approved by oral and verbal contact before participating in the research. All the participants had video gaming experience, and all had from none to seven years' experience in *LoL*. The inclusion of individuals with no experience in *LoL* was intentional, as we attempted to discover any difference in participants' opinions based on variable experience. However, we did not pursue this line of inquiry since the primary aim of this research did not involve discerning specific differences between participants.

Since this study's primary approach was to comprehend the differences between the minority (women) and majority (men) and provide a more effective solution for the minority, we strived to include several qualified female participants. Eleven women and nine men participated in this study. The participants' age ranged from 20 to 34, with an average of 26.8 years. The relative youth of the subjects are self-explanatory as video gaming is a relatively young hobby

32

and was launched on October 29, 2009, only seven years ago (League of Legends Launches, 2012).

After the initial sampling, theoretical sampling was employed to elaborate the parameters of the developing theory (Bowers, 2011). Moreover, theoretical sampling was necessary to "narrow the focus of emerging new ideas, and as a technique to develop and refine the ideas" (Charmaz, 2006, p. 198). Since theoretical sampling helps develop ideas on the purpose of the research, this study was never unfocused and contained adequate strategies for issues that emerged as this study progressed (Charmaz, 2006).

Before initiating the survey and interviews, the researcher assured the subjects that only their age, gender, and experience in gaming would be utilized in this study. However, the collected data revealed that the participants were primarily Korean. Hence, to corroborate the validity of this research, the researcher decided to include participants' nationality and the number of years they had resided in the United States. To indicate their opinions throughout the paper, we gave participants pseudonyms. The pseudonyms are names of characters or champions in *LoL*. The final survey question asked participants to list three favorite champions from *LoL*, and those who had no *LoL* experience was assigned pseudonyms randomly. All of the participants were notified individually what their pseudonyms would be so that they could acknowledge themselves when this research concluded (see Table 1 for participants' information). Video gaming is a relatively small field. Accordingly, even though this sample may not reflect the entire gaming industry or all *LoL* players, a large number of participants was not required to reach capacity in a grounded theory analysis (Wuest, 2007).

Data Collection

The participants were initially contacted online. Following the completion of the IRB

approval form, the interviews and surveys were conducted at the participants' convenience.

Every participant preferred an online survey and interview at first. However, after completing the

survey, participants were willing to continue and collaborate in an additional intensive, in-depth

interview to explain their perspectives more. These follow-up responses provided an added

dimension to the research, allowing in-depth exploration with an experienced individual

(Charmaz, 2006). Specifically, we succeeded in receiving responses from women who had

experienced social barriers but could not express these biases because of the social norm. Data

were collected by comprehensive surveys and interviews. While all of the interviews were

conducted formally with a survey section and a general interview section, some participants

offered to provide more information as a follow-up (10 participants out of 20). Most of the

participants were recreational *LoL* players and had up to seven years of playing the game.

Procedure

Data collection occurred over a span of two months from February to March 2017.

Twenty participants who had eSports experience sent their interview preferences. Of course,

more participants may provide a more valid and reliable result, but for qualitative research it is

important to obtain accurate facts by employing informational interviewing (Charmaz, 2006).

Moreover, Charmaz insists that restricted and uninvestigated subjects can be studied with a

sample number of 10–15 participants.

Most participants preferred using online methods such as emails. Four of the participants

opted to do the interview and survey at their homes, while three chose the researcher's home.

The intensive interviews that were conducted in person lasted about 30 min each. Those who

preferred the online option took about three days to get the responses back after they were distributed. The process of meeting with participants was simple. The surveys were handed out first and after completion, the researcher and participant relaxed and informally conversed, following which the interview was conducted. The questions began with querying how they felt about video games in general. These general questions were primarily open-ended and, rather than the response to the question, the researcher endeavored to identify a behavioral characteristic or a significant attitudinal change from the participant's replies. For example, the interview began with questions such as "what sort of games do you play," eventually leading to broader questions such as "what was it like to play electronic games with females or males?" Since the participants were interested in the main research questions, the interviewer attempted to elicit and clarify their feelings. In addition, as the conversation progressed, the interviewer endeavored to ask open-ended questions to receive a detailed explanation.

After distributing the surveys and conducting interviews, most of the participants were willing to provide more detailed answers once the basic information was transcribed and coded. The participants' willingness and the comprehensive details that were obtained later, helped construct the grounded theory. The additional personal feedback provided the study with a deeper explanation of the social and behavioral aspects in the questions, while the initial interview merely offered answers to the questions. Moreover, as the researcher was conducting the study and interviews, the second interaction with the participants provided a valuable opportunity to discuss important factors that were mentioned superficially in the transcription and memos. Moreover, several in-depth behavioral issues have been omitted before, and the follow up with the participants gave this study a richer validity.

Data Analysis

The analysis followed Charmaz's grounded theory. The responses were coded into categories to ensure different answers with the same context were clearly analyzed. However, unlike most studies that tend to analyze general concepts, this study conducted in-depth analysis on individual responses because each response has a significant meaning. We attempted to analyze social perceptions and participants' feelings that are not normally expressed.

Additionally, a specific approach that this research selected was regarding the researcher's role. Grounded theorists disagree on the degree to which the researcher should participate in the survey. However, Charmaz argues that since grounded theory is about how we interact and what we discover during these social communications from the past and present, a researcher's role is important (Charmaz, 2006). Specifically for this study, the researcher's Korean origins, initial interest in this area, and a comprehensive expertise in both eSports and traditional sports provides one aspect to promote trustworthiness of the findings.

Employing Charmaz's constructivist grounded theory the researcher analyzed the participants' ideas through impressionistic coding procedures. Essentially, not only evaluating the answers, but also identifying the embedded behaviors, attitudes, and influences on the participants' mindsets regarding the impact of gender inequality. Moreover, the detailed data analysis followed Charmaz's (2006) analytic framework.

After receiving the interview and surveys, the data were transcribed. Before progressing, the transcriptions and written surveys were verified with the original data, to ensure accuracy. Along with the transcribed material, they were coded line-by-line and the terms necessary to build a theory were highlighted. This detailed coding was to identify patterns and the actual meanings of participants' verbal actions (Saldaña, 2009). Some examples of the coded terms

were "sexual harassment," "less interest," "verbal harassment," "less exposure to technology," and "spatial abilities" specifically regarding gender inequality in electronic gaming. The codes were grouped into similar categories so that the large categories could be used to indicate the frequency and importance of the codings that were essential to construct a conceptual interpretation (Charmaz, 2006). Some of the larger themes that emerged from this meticulous process were "natural difference of men and women," "culture," and "influence of the social norms." The final process involved theoretical coding, where the relationships between all the codes were linked and we attempted to discover a trend. The researcher especially attempted to find a consistency in the themes to help build a theory on ensuring gender equality in eSports. Following Charmaz's theoretical sampling, none of the participants were interviewed consistently. After the first participant was interviewed, the second was asked the same questions along with additional questions to clarify and confirm certain conceptual relationships. Every time a participant was interviewed, the irrelevant data were noted and discareded while relevant concepts and ideas were explored further according to theoretical sampling and coding procedures.

As Charmaz's coding procedure is patently more interpretative, intuitive, and impressionistic than Classic or Straussian grounded theory, this study strictly followed the Charmaz methodology to ensure reliability (Charmaz, 2006). During the analysis phase, theoretical memos were inscribed to follow the theoretical sampling that was established earlier. These theoretical notes assisted in clarifying the study's aims. Besides, these memos provided the "pivotal intermediate step between data collection and writing drafts of papers," and establishes "a crucial method in grounded theory because it prompts the researcher to analyze data and codes early in the process" (Charmaz, 2006). These memos were utilized to theorize the

coding and transform them into concepts. Finally, the constant comparative method was employed to create a theory. The constant comparative method is to compare data, then data with codes, concepts, and finally concepts and literature (Charmaz, 2006; Weed, 2009). Every code from every participant was compared, and the developed concepts were verified to ensure that they corresponded to the same theory in every aspect.

Moreover, the researcher collaborated with an expert in this field throughout the process to gain expertise and validity for the research. The expert assisted by validating the researcher's interpretations of the data and the overall findings.

Ethical Issues

This study had minimal risk since the main procedures for collecting data were surveys and interviews. However, gender issues and feminism can be a sensitive subject, especially when one of the genders is considered a minority. Women who are discriminated against during an electronic game, may experience anger, frustration, and be stressed out. As stated in the survey and interview approval, the researcher gave participants the freedom to discontinue the survey if any question regarding gender inequality was too distressing.

<center>**Results**</center>

Since the study is a combination of various viewpoints across genders, deducing a distinct response to formulate a theory was not a simple task. We created a theory with these concepts regarding local cultures and larger social structures (Charmaz, 2006). This section will introduce the participants' analysis and an explanation of how the interview codes were transformed into a theory. Then, different responses regarding the reasons for male domination and the future of eSports in regards to gender equality will be discussed, culminating in a conclusion of this study.

Social Phases of a Woman's Video Gaming Lifespan

The reasons why women are not continuing to compete and why they are rebuffed at the recreational level of competitive gaming follows a social process divided into three phases: 1) playing with friends, 2) beginning to compete after gaining confidence and skills, and 3) being upset by the harassment and hostility of men. These phases significantly divide a woman's gaming lifespan and embody reasons why fewer women exist in the competitive gaming world. However, if men understood these phases, gaming culture might easily propagate gender equality. Moreover, considering the recent increase in female eSport participation, the current phase is favorable for the electronic gaming industry to promote gaming participation among women. If companies successfully understand and analyze women's current gaming patterns, they can easily develop the underestimated market for electronic sports. Concentrating on the three phases, they may appear as an independent and even unrelated with the other stages. However, as the limitations in gaming for women builds up, the great chance to expand the

<center>39</center>

female market may be hindered due to the barriers. As explained above, these stages should be understood and analyzed to enhance the future of eSports. It is important to note that several women face similar barriers while participating in electronic sports.

Playing with friends.

When asked how they began playing video games, women stated that they usually picked up gaming from their family, friends, and significant others. This was also the same procedure with men. Focusing on *LoL*, which is a harder game to pick up skills and gain momentum, women are usually assigned a rather less important and less aggressive role, that is the support and top lane. There they can learn how to play the game, and pick up the strategies from teammates who are willing to offer advice. Furthermore, even if they make mistakes, their teammates would be more understanding because the teammates will consist of close friends or a significant other. Amumu, who began playing *LoL* with her boyfriend, told the researcher, "I did not start playing as a team but as a duo. I began to play with my boyfriend, and we figured out the winning dynamics of the game by changing roles independently, to find out the best strategy that was apt for us." She admitted that she was not forced to play in a specific position, but she believed it would be better for a novice to play as a support or top because it is less hazardous. "Thinking about it, nobody sends a beginner to mid, jungle or ADC. If we see someone do that, that guy is a saint."

After all, playing as a team with good teammates helps a beginner adjust more quickly to the game. Kayle, a male participant who began gaming with Volibear, recalled, "When I first played League of Legends, it was a difficult experience because there were so many skilled players from the opponents even though this game is matched with similar experience. However, playing in a team with skilled friends helped me gain knowledge of the mechanics of the game,

and their advice helped me jump up to another level. If I had played this game by myself, I probably would not have played it until now, or probably would have had worse skills than I have now."

Beginning to compete after gaining confidence and skills.

As a female player gains experience within the groups, she also gains confidence and skills to play the game well and begins playing more aggressive roles. Also, since the group knows that she has improved, they allow her to play what she wants and offer her advice to improve her skills and enjoy the game. *LoL* relies heavily on teamwork. The nature of the game requires constant communication during the game, and teammates usually point out each other's mistakes and criticize them to achieve a victory. However, in a team comprising friends and romantic partners, these verbal criticisms are minimal. This is because the group consists of friends who have a social relationship regardless of gaming skills. Volibear recalled her experience when she became a more experienced player.

> When I was given a chance to play a more aggressive role, I figured out that I was a more violent person that I had thought I would be. I enjoyed jumping on the opponents' backs and surprising them to a kill. I was kept inside the perception that as a female, I would rather be a supportive role, but I am enjoying this game even more after I had been exposed to the aggressive functions of the game. I think this was the phase when I started to think I can play competitively alone and excel the others without playing in the comfort zone with my friends.

As a male observer of Volibear's development, Kayle provided detailed explanations of the phase wherein she gained confidence and skills.

When Volibear started to play League of Legends with me, I first did not recognize any differences since we were both beginners and had to take verbal harassments for playing awful. There was a slight difference where I did not care that much about the harassments, while Volibear seemed to get stressed out by those comments. However, at this phase, I remember this being very minimal since we usually formed a team with our companions, and Volibear learned the dynamics of the game very quickly from the help from our considering teammates. As she gained confidence, she started to play by herself with complete strangers, and I even saw her communicate with the teammates and point out the errors of them. I felt that Volibear was gaining interest along with the skills as she was confident enough to play the game as a leader of the team, providing orders to the whole team. However, this confidence phase did not go too long.

As Kayle mentions above, there are phases where women feel as comfortable as men. However, this phase consists of teammates who are friends. Games played with a comfortable, self-selected team are not sufficient to learn the actual nature of *LoL*.

Denied from Advancing to the Next Level

After the female participants in our sample thought they had gained sufficient experience in the game, they moved to the phase of playing with hostile and unforgiving teammates who needed to increase their tiers. Participants, who had begun to gain confidence from the positive feedback of their teammates, join the queue in the assurance that they will be sufficiently skilled to play with others. Although, some will excel in their first game, usually, most will make a terrible mistake, leading the team to a critical situation or even a loss. Given the anonymous nature of virtual gaming, most participants experienced offensive comments from teammates when they made mistakes.

Janna recalls the time when she played the game, insisting rather aggressively, "males should not talk shit to the players just because they are unskilled, especially if they assume that he is talking to a female." Malphite, a male participant, also agreed that female gamers are still treated differently. In addition to Malphite and Janna's opinion, Annie also shared her experience while playing competitive games with men.

> Gender inequality did not affect my experiences that much, but due to the stereotypes that eSports are for men, it was annoying when people looked at me awkwardly when I "came out" that I play League of Legends. The comments such as 'Wow, you play League of Legends?' and the looks of awe they give me was not so enjoyable. It was rather evident that males had a severe bias that video games were not for females, and women are not good at playing competitive electronic games.

Kayle, a male participant, also recollects the many times he had observed sexual and verbal harassment during games.

> I swear that I have never made gender comments when I am playing League of Legends. I will not deny myself using offensive language to my teammates and the opponents. However, I never had attacked someone assuming that the person was a female. I just attack without the supposition of gender. I just see them as trolls that try to block my way up the ranks.

When queried about the sort of harassment he had observed, he calmly listed what he remembered.

> In the virtual world, it is difficult to find out the gender of the players. However, gender can be identified by the language and emoji that the player uses. Some female players have usernames that indicate that they are women. Also, some just tell the others that

43

they are females and are not much skilled. Of course, these could be men pretending to be

women, but the fact is, most of the time they are known as females, the chats are

suddenly filled with sexual jokes and harassments that will deny the women participation

in the game.

Teemo, another male participant, added the following when asked what changes would

be most beneficial for participating in eSports.

There are countless horror stories on community websites such as sexual harassments via

voice chat, text and others. People tend to think that they are anonymous once they are in

the virtual world, playing the game. However, users including us should not make these

errors, and treat other individuals kindly, disregarding their gender and race. To do this,

harsh penalties should be applied to the people with bad behaviors.

As Teemo insists, to stop such incidents, men need to resolve this disorder. For example,

during open chatting before, during and after a game, whenever someone harasses a women

player, the person that stops those moves should be men. If women fight for it, as they are the

minority, men disguised by the anonymity will continue to harass them even more. If a man can

stop the anonymous men and tell them it is not cool to do, creating a small movement to clear up

the sexual harassments in the eSport environment.

Several participants such as Teemo and Galio stated that the solution to gender equality

in eSports would be for the game developing companies to mete out strong punishment to those

who abuse others verbally and sexually. Tribunal systems have been developed in *LoL* to ban

and punish such players. However, rather than punishing the players, there should be a reward

system that will promote and motivate men to stop harassing not only women but each other. As

Malphite suggests, "A healthy dose of friendly manners can help enjoy the games, regardless of race, gender, or characteristic of a person."

Volibear shared the detailed progress of her gaming lifespan during a follow-up interview. She had been playing for three years, having begun playing the game with her boyfriend and his friends. Before she played *LoL*, she enjoyed playing games such as Sims and Rollercoaster Tycoon that are mission-oriented and non-competitive. When she joined the competitive gaming scene, she was confounded at first.

> When I first played League of Legends, it was as I was not welcomed in the game. I felt forced in a basketball game, where everyone knew how to dribble the ball, while I only knew how to hold the ball. The pressure was enormous, and people started harassing me for my skills.

Volibear joined the *LoL* scene again with the help of friends. Despite being less skilled than her teammates, they were supportive because they were all her friends. Within the safety zone, Volibear improved her skills and became a better player. Gaining confidence, she decided to play outside her safety zone and began to play with her boyfriend. When she made mistakes, she was harassed by the other teammates. Moreover, she realized that she was receiving sexual comments once her boyfriend introduced her as a woman. She began denying her gender in the virtual world and attempted to sound more aggressive during chats so that the other players would not disrespect her. Kayle, her boyfriend, stated during the interview that Volibear had a hard time during that phase.

> She was very disappointed. At first, she started to report these accounts that verbally abuse players and sexually/racially harass the opponents with some hope that she could clean up the community. However, these players were not at all banned and were playing

the game as nothing had happened. She was devastated and decided not to play the game that disregards female players.

Volibear included her thoughts after listening to Kayle.

After this happened, it took a very long time, maybe over a couple of months to come back to play the game, which I still play recreationally. I did not start playing again because I had affection to League of Legends, but because it was a mean of socialization with my close friends. I never play the game by myself, and I never tell the people that I am a female.

Other female participants' responses were similar, and interestingly, women were abusing other women as some of these actions occurred in groups with women who experienced the shutouts.

Additional Examples of Males Shutting Out Females

Interestingly, in the group where Volibear learned her *LoL* skills with friendly teammates, a newcomer, Soraka, was shutout when attempting to play with the team while socializing. This incident occurred when all the group members had at least one year experience, implying that beginners would not be able to play with them because of differences in skill. It is understandable that everyone would not want to play with a beginner, or that they would be relegated to a less important game. However, she was sent in a support role, where the primary objective is to follow the Attack Damage Carry (ADC), heal the player, and make him stronger. Of course, as a novice, supporting the ADC is a simple job, so she did not receive many complaints initially. She recalled, "It was felt better to start the game as a support, especially a healing support because when I first started League of Legends, I did not know what I was doing, and just wanted to hide behind someone so that I did not get killed too soon." She was not

confident about telling the researcher that she quit the game solely because of playing supportive roles.

I think I had multiple reasons to quit this game. The most important were probably the verbal harassments from the opponents. I just did not want to play with the aggressive players who swear during the game and give pressure. Moreover, the game itself was too intense. Video games are supposed to be a pastime after our real occupation. However, it felt to me that it was more than a leisure. I guess I did not have much interest in improving because I simply wanted to enjoy the game. However, the League of Legends community and the game itself did not give me the motivation to be a better player. Especially when I get harassed that my game playing abilities are poor, I simply assumed that I did not have talent in this game. This bothered the momentum I could have gained to play this game continuously.

Soraka had mixed feelings about how she began and quit *LoL*. She insisted that if she had been given more opportunities in playing in a less stressful environment with more freedom to select roles, she might have gained interest in the game. Moreover, she strongly implied that if she had gained interest while learning the game and if the chat community had been less abusive, she may have never stopped playing *LoL*. However, most of the novices do not mind being assigned less aggressive roles, because they are inclined to think that they should not impair teamwork by emphasizing their preferences. Leona, a male player with three years of *LoL* experience mentioned in a follow-up interview, "Even though I was male, I was first sent to a support role to learn the game. I do not believe that women are sent to support because there is a gender bias." He was not offended, and he became a good support later, but he believes that it might have been different if he had begun in another role. The difference here is that Leona did

not express his desire to play in other aggressive positions. He did not mind playing support, and he stated that he ultimately gained comfort in that position, which made him enjoy the game more.

Even though there were women in a specific group that played *LoL* where Soraka experienced shut-outs, there was a bias that women players should play support roles when they begin, though there is nothing easy about that role. The victim, Soraka, stopped playing the game permanently due to various reasons including the fact that she was always used as a support player. She did admit that there were other complex reasons for quitting the game, but it was evident that bias stopped her from gaining more interest in *LoL*.

Moreover, there are different styles of support, implying that support can not only provide healing but also be aggressive by helping the ADC harm opponents so that the ADC can kill the enemy more expediently. However, Soraka was never offered any other support roles not only because of the assumption that the healing support is the easiest role but also the presumption that aggressive supporting roles were inappropriate for Soraka because she was both a woman and a novice player**.**

The principles of gender roles play a significant role in expelling women from the eSports sphere. Future research should corroborate the existence of different types of women who can play not only a supportive role but also an aggressive one. Additionally, the fundamental presumption that women cannot play as well as men should not be a default position. There are other reasons why women are feeling excluded. Some are not wholly because of men. According to Zyra, "eSports clubs are already male saturated, and females receive pressure to join the already existing clubs." Annie adds, "Women do have equal opportunities to play eSports, but a small percentage do not because most school and social eSports clubs are

filled with men, which will make females hesitate to join the club." Volibear included her comparison regarding the equal opportunities for women in eSports – "Even though the doors are wide open to anyone, there is an invisible wall that will prohibit the minority to join. It may seem like males trying to get a nail polish where there are many females already in the shop."

Even though these participants cannot accurately represent the entire population, most female participants experienced barriers while playing video games such as *LoL*. The following section will investigate all the participant's responses regarding their personal reasons for male domination and solutions for the future. These responses regarding reasons and suggestions that will make electronic gaming more accessible to women were sufficiently reasonable to formulate a theory.

The primary purpose of this study was to examine the experiences of women who begin playing *LoL* and eventually lose interest at a more competitive level. Using grounded theory methodology, a theory regarding women's video gaming progress was produced. The following section will discuss and elaborate the existing theories that were mentioned but may be in contrast to the responses elicited. This section connects responses on broader issues to the initial results that this study attempted to identify. This section and structure will help discover correlations between the concepts and theories in this study.

Every participant indicated that the primary reason men dominated the eSports field was that they had more exposure to video games when younger. Thus, compared to women, men have more experience and enjoy more game playing than women. However, the participants presented other responses that will help understand the status of gender inequality today.

Skills and Characteristics that Differ by Gender

Remarkably, most women participants asserted that men are more skilled that women in various ways in the field of video games. Since this was a study on gender equality, this research primarily concentrated on the women's responses because they are the minority. However, most of the responses from the surveys and interviews were consistent despite gender.

All the participants agreed that eSports require special abilities to excel. Some insisted that the necessary skills be both less important and less in number than traditional sports, but most agreed that the abilities were similar to any other sport. Participant's claimed that the most valuable skills for eSports were agility, physical reflexes, and teamwork. Other important skills were communication skills, judgment, quick evaluation of the situation, continuous dexterous hand movement, a thorough understanding of the game itself, rapid eye movement, swift decision making, and concentration.

However, most participants agreed that if someone devoted more time to *LoL*, his or her skills would improve correspondingly. Karma insisted that the abilities necessary to excel in video games not be biological but mental, especially the capability to concentrate. Essentially, not a difference between the sexes but the difference between individuals excelling in academics as opposed to those excelling in music. Zyra explained the following while describing the expertise between genders:

> Mostly, the abilities to excel in eSports comes from the time you have available in your everyday life to devote to practice. If you have already committed to another path, full time or part time job or school, you will not be able to put in as much time as a full-time streamer.

Echoing Zyra's thoughts, Lulu, a male participant emphasized that exposure to video games at an early age be critical because the earlier you have exposure to something, the higher

the possibility of continuing the activity, thus gradually improving your expertise and skills on that subject.

Will Male Domination Continue?

Most women participants agreed that men currently dominate the video game and eSports market. They also agreed that this phenomenon would continue for a while. However, a female participant, Karma, raised a theoretical question regarding why gender equality was necessary for eSports.

First of all, I am not sure what equality between the sexes means in eSports participation. Does it matter if females do play as much as males do? If we think in that way, males should be hired equally in nail art industries or similar female dominated businesses. We usually do not believe that this is wrong, even though males can be as good as females in nail art. It seems unnecessary to assume that females are getting disadvantaged of not getting exposed to the current electronic gaming boom. We can simply acknowledge that men are better and interested in this field, while other industries have strengths for women.

Despite stating that the endeavor to help women in the electronic gaming industry was unnecessary, Karma did clarify in a follow-up interview that since eSports is a growing industry it was essential for men and women experience entertainment equally:

"I do think that the sense of victory and accomplishment from video gaming is a great source of entertainment and socialization for a majority of people. It will be great if a new medium of entertainment is created for people, and I hope eSports continues to grow in its size and popularity. However, just because men had been the best players in eSports

51

does not mean women get less recognition. It is because the pool for eSports in a currently male-dominated, and I believe the new technologies such as Virtual Reality(VR) will help both men and women interested in electronic gaming. For women specifically, I saw my brother playing all sorts of competitive electronic gaming to socialize with his friends. I feel that I will be more interested to participate in eSports if more of my friends played them as a hobby."

Other female participants were pessimistic about the increase in female participation because the current condition did not encourage promoting female consumers. However, most of the participants were optimistic that if the infrastructure of eSports and video games improved, eSports would gain popularity devoid of gender barriers. Male participants were more positive about the equality between the sexes in the future. Leona claimed that the question of gender inequality should be approached as a problem to be solved:

I believe gender equality in eSport participation is not inherently discriminative. It may be just a natural phenomenon that women tend to not play well, given the "equality" in mind and hand skills different from any other sports. If the eSport industry is selecting excellent players solely based on their abilities to perform, which hopefully is the case, I believe the lack of gender balance in the industry is not a problem. If, however, there is discrimination against female players that is not based on their abilities, then I believe eSports has to facilitate the participation of females by making female leagues, which later with the participation of many other females, can be combined into one.

Miss Fortune, a male participant, mentioned, "Competitive sports and traditional sports also had some time for accept women players, so the eSports market will need to face that." However, he was not pessimistic about the future of gender equality in eSports because "gender

equality will happen sooner than traditional sports because of the speed of increasing popularity and the characteristics of electronic gaming that does not require physical strengths or abilities particular to males." However, most men also have their views regarding why gender inequalities occur in eSports. Focusing on the male participant's responses, all agreed that the reason men were dominating in eSports was less female participation in electronic games from the beginning. Essentially, the origins of eSports were not conducive for women. The reasons are stated below:

More exposure to video games from the beginning.

All humans are social beings. Men especially like to "hang out" with their friends and family. During a casual interview with Leona, a male participant, he stated that "the sheer number of hours men spend playing video games will easily make them dominate the eSport competitions." In general, women do not socialize with each other through video games as much as men do. From a woman's standpoint, which was similar to Leona's, the reasons were clarified. Janna explained,

> Women do not have equal opportunities to play eSports, which will keep the male domination active in the world of eSports. Not only the exposure to video games in general, but women are not exposed to technology as much as guys are. Moreover, gender stereotypes drive girls away from playing games or simply just admitting to the others that we enjoy playing video games. These factors drive women away from games, rather than helping us enjoy the game at the same rate with males.

Excessive barriers to learning and gaining familiarity with the game.

Games today are influenced by advancements in technology and are more visually elaborate. Thus, maneuvering the characters in games, especially MOBA games, is not easy for

beginners. Women especially who do not have as much exposure to video games as men find it difficult to adapt to gaming culture and language. Jinx insisted that there be several game languages for women to learn if they are inexperienced players. Jinx admitted that if she had less knowledge of online game formats, she would have considered *LoL* a highly exclusive game.

Basic male characteristics.

The common perception among video gamers is that men are biologically more aggressive. Trundle, a male participant, acknowledged, "Men have more testosterone levels than women, which means that there is a higher probability of aggressive and competitive features in men's traits compared to women." Annie, a female participant with three years of *LoL* experience and 19 years of video gaming experience, explained her reasoning behind male dominance in eSports.

> Most of the people know and believe that male's motor reflexes and skills are better than females. From the current status, there are more male game addicts which mean that they can spend more time to research the dynamics of winning. Moreover, men are more competitive and more obsessed with winning in general. But not only the physical differences, but the mental process of men also desire to win more than women. As expressions such as 'sleeping with the enemy' exist, men have an adamant desire to win. Even if we look back in history, men have dominated women. We have to consider the unfairness to the females and the history that was extremely favored to males, but I think these all are generated from the core characteristics of males which are the strong desire of winning over the opponents. I believe that men want to win over each other, while females concentrate on winning to preserve their self-esteem, which gives men an advantage in these competitive video gaming in general.

From a male standpoint, Leona agreed with Annie that men possess better characteristics and backgrounds to excel in video games.

Men tend to value and respect those who play the game well whereas women would play the game, as far as I experienced, for the entertainment. I believe gaining respect and value of self can be a stronger motivation in achieving excellence than pure entertainment.

Unfortunately, most participants regardless of gender believe that men are more likely to be aggressive and interested in video games. However, the fallacy of hasty generalizations exists in these presumptions. Most female participants stated that men do have advantages in video gaming. However, the analysis revealed that we need to query if enough females are exposed to video games, to begin with, to compare the real advantages. Just like men, women possess a certain percentage of innate abilities that are valuable in excelling at video gaming.

Better options.

Since the video gaming world is not inviting for women, male domination will continue. Annie stated that:

Most women would more likely spend their time chatting with each other, and share thoughts and emotions, rather than play games to win over each other. Many are not even interested in playing video games because they are not as exposed to them, and they are not widely played between females. Even if they do have an interest in games, they are more likely to play games that have aesthetically appealing characters such as cute, handsome and beautiful.

As eSports gains popularity, the industry should focus its resources on developing a system that appeals to a younger audience to diminish the perception that electronic games are

detrimental to children's development. Kayle provided insight from a Korean perspective, "In Korea, the culture of teenagers is to play electronic games with their friends after school. However, Korean parents and the government thinks that this phenomenon is a social hazard and a new law was enacted to stop those who are under 18 years of age play after 10:00 PM." To maintain industry growth and stabilize revenues, a youth league might even be a good idea.

Solution to Increase Female Participation

Most of the participants agreed that women's participation would increase in the future but under different circumstances. The perception that eSports, or competitive electronic gaming, is only for men should be eliminated.

More females in the eSports scene.

If more female professional gamers are broadcast on mass media, gender biases will change. Volibear, who stated that she was a fervent spectator of eSports, described her expectations for the future of eSports.

If the media can promote female video gaming, normal females that were not interested in video gaming may start to find interest. While this happens, if the press can focus on the female professional player's skills, and give them enough recognition of their skills, rather than their appearances and sexual appeal, I believe females will be less reluctant to try out video games. If the media makes mistakes such as promoting the cute and sexy professional players, the males will only benefit from those and will build up another barrier for the females in joining eSports. I have never seen female recognition in video gaming skills in my life. I have experienced the media focusing on one beautiful female *Starcraft* player a long time ago, but these are not appealing to women. I hope the gaming

companies and eSports organization can create some great marketing strategies for

females.

Teemo, a male participant, also agreed that women need more recognition in eSports. When Teemo was asked if men and women receive equal recognition in eSports, he stated, "I do not believe so. There are several women players in the world, but even they do not get recognition." Thresh, a male participant, also had a similar perspective regarding women professional players in electronic gaming. He said, "One of the most important segments of the industry to prosper is star power. In other words, there have to be at least few female players who excel male players in a significant degree that they spark female's interests in eSports."

As stated above, men were inclined to believe that the sooner gender equality occurred the more eSports growth would accelerate. Kayle accepted the fact that it would take some time. However, he asserted, "As soon as females start playing in whatever league provided, and if the eSports media and companies spend some money to publicize the female leagues, the public will demand more female competitions." Kayle continued, "Sooner or later, there will be All-Star matches between the male professionals and women professionals, and star female players that are both attention taking and skillful will emerge." Female participants also agreed regarding the necessity of female star players. Amumu stated that "If a female superstar makes an appearance in the eSports scene, it will catch other female's attention, which will make them interested in gaming." Moreover, since females are the minority in eSports and video games, men may assume that they are better than women in electronic gaming. This social bias can be abolished if women are promoted more in the media and display skills males do. Compared to decades, when few women gamers existed, it is better for women to play games and not be assessed as much today. Once the cultural bias reduces and female players possess sufficient abilities to play

competitive eSports, this research results can give a positive future for gender equality in eSports soon.

Moreover, males were more enthusiastic about the idea of female professional gamers. Miss Fortune, a male participant, strongly stated his hopes for the future of the eSports industry:

> Exceptions always exist. That is why sports is fun and why life is entertaining. The current state of male domination is just because of a bigger pool of men. As the eSports industry is going to grow quick, females will naturally be interested in playing games and will become a professional if they have the talent. Moreover, since eSports do not need physical attributes, the gender equality will happen sooner than traditional sports. I am waiting for the day when a sensational female player will kick Faker's ass. As soon as we see these happening, the future of eSports will only develop faster.

The analysis enabled us to identify novel concepts and strengthen existing theories (Shen et al., 2016). Previous research identified that if play time and character class were not controlled men are better players than women. In other words, since men had more experience in the gaming environment, they had already gained expertise in general gaming, giving them advantages. However, if women and men were measured by the advancement in performance, women were at least similar to men, sometimes even better. Our study strengthens this statement by proving that women are not initially in the same starting position compared to men. If equal opportunity is provided to the gender, the gender stereotypes will have a higher possibility to disappear (Shen et al., 2016) **Early promotion of technology among women**

Most of the participants agreed that the perception that men are better at electronic games should be destroyed**.** Previous studies as well as this one show that the gender gap in playing the games hinder female players who do not gain confidence in the game. The females, who do not

have confidence will then have to conform to the negative expectation, which females will face the vicious cycle of believing that they do not belong in the gaming society (Steele & Aronson, 1995). Janna and Annie's responses demonstrate the necessity of early exposure to games and technology so that the gender gap between men and women can be reduced.

Janna, who had the most *LoL* experience among the participants, suggested that men have more exposure to electronic games. She stated, "To increase gender equality in eSports, people should promote technology to younger girls in their childhood that they will not have a repulsion to video games." Echoing Janna, Zyra also added her thoughts regarding introducing electronic games to young girls:

> There is a cultural bias that starts from an early age that dictates that gaming, not a girly thing to do. While it might be more socially acceptable for a male to spend much of his free time playing video games, females are encouraged to do other traditionally 'more girly' things with their time.

Volibear and Zyra suggested a specific solution to promote gaming earlier among girls and create an atmosphere where they can play video games as much as boys do. From her experience as an engineering major, Zyra stated:

> At my University, there is an "Introduce a Girl to Engineering" day held at which young (elementary school aged) females are introduced to the field of engineering by older females already actively involved in the field. Perhaps if an analogous "introduce a girl to gaming" type recruitment were to occur, we would see more females participating in eSports.

Volibear also had a similar idea of offering young aged females more exposure to video gaming. She recommended creating classes in elementary school such as "Introduction to Video

Games," as a medium to generate equal participation and exposure to video games. Zyra also added, "We are starting to see a broader social movement towards the breakdown gender stereotypes starting from a young age for many hobbies/interests, not just about gaming. Given enough time, I believe gender equality in eSports will evolve naturally."

Creation of female/male collaboration in eSports.

Everything needs a beginning. Currently, female leagues do not exist, and even if they are created in the near future, it is likely that they will not be highlighted as much as male competitions. If eSports organizers thought of the female population as a new population to market, they would be more than willing to promote female professional leagues. Given that women are liberally educated in video games and are motivated enough to play them, organizations that create professional competitive gaming content should attempt to include women in the existing eSports scene. The methods are unlimited. Annie proposes that a male/female division can be created. If the female league gains more or as much popularity as the male league, she insists that men would not underestimate women gamers. Kayle stated that if there is a mixed-gender league or competition, women can be motivated to play and observe the game. Female and male professional gamers and recreational video gamers should play with mixed-gender teams, thus promoting female competitive electronic gaming. The butterfly effect may be considerable, but we will never know until it begins.

Creation of Different Types of Games and Options to Appeal to Females

Based on the assumption that MOBA, FPS, and other popular gaming forms are not generating interest from women, game designers and producers should research games that

appeal to both men and women equally. Moreover, participants suggested options such as attractive characters and even characters with different sexual orientations.

Accepting female preferences in game design.

When asked about their expectations regarding the future of eSports, many female participants stated the importance of accommodating women's interests and Annie stated her opinions regarding this assertion:

> Personally, I prefer video and computer games that are mission oriented. If I had a choice, I would not play a team game to win over each other. Rather than winning the enemies, I would like to conquer the game itself. I hope that the video gaming market can produce mission oriented games more than competitive games like *League of Legends* or *Overwatch*.

Warwick, another female participant, agreed with Annie. She insisted that the ultimate solution to create gender equality in eSports be to create a game that would attract and motivate feminine psychology.

> There are lots of games already out in the market that accurately accommodates the psychology of women. For example, *Pokémon GO* does have fighting and aggression in the core nature of the game; it still attracts many females because of the various purposes within the game stimulate the natural instincts of a female such as having to take care of the Pokémon and the game in itself being more of a social game. These small, but important characteristics that are attractive to the female psychology will help the future of electronic gaming. If gaming companies can develop a game that complements all of the physical, mental and technological aspects for both men and women, I believe that eSports will accelerate the start of the new global movement.

Accommodating unique demands.

Galio also stated the importance of creating diverse types of games for the eSports industry to flourish.

> Everything is changing so vastly, and now sexual orientation is also considered to be respected. For this reason, electronic games in the future should create not only games that accommodate female preferences but also preferences from queers. As a start, games that have the option to create additional characters should focus on the ratio of men and women, and even create queer characters that the minority can enjoy.

Increased aesthetic appeal.

Jinx offered a solution by citing the example of two other similarly popular games—*Starcraft* and *Overwatch*—that have a different ratio of female users. Jinx stated, "Popularity of a certain game among female players depends on the graphics of the game." She compared *Starcraft* and *Overwatch*, stating, "Most of my female friends never play *Starcraft,* but they love *Overwatch*." *Starcraft* and *Overwatch*, both produced by Blizzard, have a considerably different playing style. *Starcraft* was first launched in 1998 while *Overwatch* is a newer game that was released in 2016. Hence, there are certain limitations to comparing both games. However, the two games were and are very popular, and Jinx's argument regarding sophisticated graphics and visuals is valid because women are more sensitive to the notion of "avatars," or virtual identity, and enjoy adorning themselves in the online world. Depending on how the avatar is presented and utilized, the player's comfort level and enjoyment of the game increases vitally (Ray, 2004). Similarly, as some electronic games tend to offer unappealing character choices for female players (Ivory, 2006), if characters in video games can easily be changed, such as racial, physical features, and nudity, female participation will have a higher chance to increase.

Discussion

The overall findings suggest that differences between gender in eSports indeed exist, with different objectives while playing video games. However, it also proposes that the gap between the skills of genders is not significant, and the performance of gaming is not much different between gender.

In other words, the women do have different motivation compared to men, where women are socially motivated, and men are achievement(task) motivated (Eagly & Karau, 1991, 2002; Kidder, 2002; Williams et al., 2009). The scaling of gaming abilities does not show the difference between the genders (Shen et al., 2016). This proves that this study is contradictory with the prior studies that reiterate the difference of gender abilities. Also, the results are consistent with gender differences resulting from the experience of playing the game, rather than innate abilities (Shen et al., 2016). According to the participants for this current study, if women are exposed as much as men are to video gaming, there will be a higher possibility for women to enter the competitive gaming market. These findings are inconsistent with the gender stereotypes in eSports that males are better than females, but consistent with the results of previous studies (Lucas & Sherry, 2004; Jenson & de Castell, 2011) that females are not disadvantaged in obtaining electronic gaming skills (Ratan et al., 2016). Likewise, had not the stereotype threat existed as previous study argue (Chalabev et al., 2008), it is highly possible that females could have gained better skills in eSports and have lower drop-out rates due to disrespect and negligence on female *LoL* players. Our research corroborates with previous research (Beilock et al., 2006; Chalabev et al., 2008) that the stereotype threat, may have affected our female participants where the harassments and contempt has accelerated female indifference in playing

LoL in a competitive level. Thus, our study strengthens the statement that the skill development in gaming is not relevant to the differences and role of gender. To better improve the reliability and validity of this study, research of what content and method can be used to increase exposure in video games and technology may be appropriate.

From the interviews for this study, a detailed analysis of reasons for gender inequality was established. Previous research had found that there is not a quick and easy way to reduce the gender gap in gaming (Jensen & de Castell, 2010; Lucas & Sherry, 2004). However, the answers from the interviews and surveys provided a relatively consistent picture of gender roles in eSports and ways to decrease inequality. Furthermore, women in eSports are noticeably harassed significant to hostility by men. Findings from this research emphasized that harassment from opponents discourages women to continue playing eSports until they are at a competitive level, which is consistent with previous research that women are not as confident in their gaming abilities, even though they indeed have sufficient level of gaming skills (Shen et al., 2016). Riot Games, the developer of *LoL* has actively taken this direction by providing "Honor" recognitions if the opponent/teammate is supportive, friendly and report those who are harassing, and verbally abusing (McWhertor, 2012). Future research should find the correlation of harassment levels and female participation, and confirm the relationship to find solutions to reinforce the tribunal system and ban inappropriate players. Also, if future research concentrates on the diverse effects of stereotype threat concentrating in eSports, the solutions will help notice where the females are having the urge to drop out, and have a better understanding in their motivation in game playing so that they can advance to a higher level in playing abilities. Accordingly, if men were not hostile to women gamers, and strive to create a cleaner and welcoming community for females, females would feel more comfortable to continue playing games, and be more likely to go on to a

competitive level. Consistent with previous research (Ratan et al., 2015), if the social climate that is currently hostile to the female gamers, the gender gap will have a higher possibility to decrease. Likewise, findings from earlier research suggested that females are more likely to play supportive roles, and ultimately have possibilities to think that they apt to be a supporter (Ratan et al., 2016). However, our research results identified that the gaming culture might indeed offer women to play in supportive roles, but it is more of a proficiency of playing the game matter rather than stereotypes of gender roles. If future research on whether providing supportive roles are concentrated on gender issues, or game-playing skill issues can bring clarity in this issue. Also, the results are consistent with previous theories regarding stereotype threats. The forms can be interpreted as verbal harassment, sexual harassment, and giving women supportive roles, which in fact are all listed above. However, to logically prove this, a concentrated research on stereotype threats in eSports, or video gaming is necessary.

Additionally, many females from the interviews suggested enhanced graphics and designs for the female's taste. Women indeed are more interested in collaboration and communicating with the others to achieve a goal (Cassell & Jenkins, 1998; Ray, 2004). Even though studies infer that women can play competitive games as well as men, the preferences of men and women should be equally satisfied where competition and emotional results are all satisfied (Ray, 2004). Even though these subtle differences in preferences between gender seems trivial, the male-dominated gaming market should try to break the tradition and make it more equal. Future research should be conducted on gender equality in gaming designs and implementing factors that both genders can enjoy. In-depth research will be able to increase the possibility to create a game that everyone can equally participate.

Conclusion

This study on gender inequality in eSports based on perceptions and experiences from both male and female *LoL* players examined the reasons for the differences and offered solutions for the future. So, is male domination in eSports normal? Will females never have an equal chance? Proof that women were inferior to men in video gaming could not be identified in either previous or current research. However, this article challenges prior research on the solutions required to narrow the gender gap in the current video gaming society. Grounded theory and intensive interviews and surveys were employed to obtain a better understanding of the environmental and behavioral factors in female game culture. Results revealed that the pool of players in video gaming are different, but the abilities between men and women did not differ. As mentioned before, the most important factor for gender equality is the participation of women in video gaming. The stereotype that women are inferior to men is further widening the divide, inhibiting women from unreservedly joining the already male dominated market. The positive aspect was that women were not prohibited from joining the eSports boom and men's attitudes towards them were mature and supportive. But to resolve the essential problem of the gender stereotypes, men, who are the majority should strive to obstruct such stereotypes. New systems should be created in online games to encourage those who are attempting to make the gaming community more welcome regardless of gender. Furthermore, the penalties meted out to those who are harassing others should be intensified, thus purging the virtual world. If an honorary police system is established, the gaming community will be untainted sooner and both genders will be welcome in the eSports industry.

Limitations

This study's participants were self-selected and self-reported, implying that the participants cannot accurately represent the entire population and there is a possibility that certain information may be inaccurate. However, since the information was voluntarily offered and had minimal effect on the study, the probability is very low. Since most of the participants had eSports experience and had already been exposed to gender inequality, there is a possibility that their responses are different because they are familiar with the issue and have personal feelings regarding it. In essence, with a small sample, the scale of answers may be different offering possible unstandardized responses. Fortunately, as this was a qualitative study facilitating grounded theory, the different scales were necessary; however, future research can study a larger sample without cultural barriers and identify differences to increase reliability and validity.

The participants' nationalities are another limitation that could affect the validity of this study. Since most of the participants were Korean (80% of the participants) cultural differences might exist, even though most of the participants resided in the United States during interviews, and all communicated fluently in English. Different results may appear if the participants had different hometowns from diverse regions in the world. However, as South Korea is one of the leading nations in electronic sports, this study's results are still credible. If a larger study consisting participants from all countries is conducted and the results are similar to this study's, its validity and reliability will increase. However, we must remember that Korean culture is based on Confucianism that favors men more than women.

In addition, this study chose *LoL* to investigate gender inequality. Of course, *LoL* is, in 2017, the most popular game in the market. However, it is not representative of all eSport games.

The responses to the same questions can be different for different games. Moreover, the gaming style, participants' cultural background, and many other conditions cannot be affirmed as an accurate sample of the population. Most participants stated that they would like a larger infrastructure for eSports. For example, most of the big eSports competitions happen in larger cities. The foremost reason is that eSports is still growing, but many eSports participants and fans are ready to welcome the development of eSports. Thus, a similar research should be conducted once the competitive gaming market is more developed. More development implies that gaming companies will focus on gender equality more. These changes may gradually occur as the industry develops. If a similar research is conducted in the next decade, and similar results are found, then different explanations may be necessary to comprehend gender inequality in eSports. However, even though various reasons exist, the ideas from this research promise that at least gender equality will improve in the next decade. For now, MOBA games are going to dominate the competitive gaming leagues until another generation of games is created, so the generalizations in this study are sufficiently valid. However, since Virtual Reality (VR) games will be a new trend in the near future, similar studies on VR games may be crucial to identifying reasons and solutions for gender equality. Similarly, if the study was conducted in different parts of the world, the validity will increase with a reduced possibility of errors.

Future Research

Further research needs to be conducted to disprove assumptions that women are less aggressive than men and that they dislike violence compared to men. To accomplish this, the researcher's recommendation is to conduct a direct research to identify the ratio of a large sample of women and create a distribution chart to observe what percent of women prefer aggressive and violent roles. If this research elucidates that women indeed have a similar

percentage as that of men, this research conclusion will gain more validity and reliability. In short, we need to determine if women are likely to take an aggressive characteristic in gaming roles. In addition, we need to identify which characteristics men and women prefer in video gaming. For example, if women with aggressive characteristics have a higher possibility of enjoying video games, we need to see that if that ratio equals that of men. If there are differences in these results, more verification may be required to corroborate the results that women will possess similar gaming abilities if they have more exposure to gaming during their lifetime. However, if men and women with similar characteristics are comparable with the ratio of aggressive people based on gender, there will be a positive future for gender equality in electronic gaming and the growth of eSports.

References

AAUW. (2014). The simple truth about the gender pay gap (Fall 2014): American Association of University Women

Acosta, R.V., & Carpenter, L.J. (2008). Women in intercollegiate Sport: A longitudinal, national study thirty one year update. (1977-2008). Retrieved from http://www.acostacarpenter.org

Anderson, C.A., & Bushman, B.J. (2001). Effects of violent video games on aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, and prosocial behavior: A meta-analytic review of the scientific literature. *Psychological Science*, 12(5), 353-359.

Apstein, S. (October 29, 2016). Inside the flourishing world of competitive gaming. (Online), April 21, 2017, *Sports Illustrated.* https://www.si.com/more-sports/2015/10/29/esports-competitive-video-gaming

Baker, C. (August 30, 2016). Meet Dennis 'Thresh' Fong, the Original Pro Gamer. (Online), April 28, 2017, from http://www.glixel.com/culture/news/meet-dennis-thresh-fong-the-original-pro-gamer-w445934

Barber, N. (May 14, 2015). Can Women be as Violent as Men? (Online), April 29, 2017, from https://www.psychologytoday.com/blog/the-human-beast/201505/can-women-be-violent-men

BBC. (November 21, 2016). 100 Women 2016: The women challenging sexism in e-sports. (Online), April 11, 2017, *BBC News*. http://www.bbc.com/news/technology-37992322

Beasley, B., & Collins Standley, T. (2002). Shirts vs. skins: Clothing as indicator of gender role stereotyping in video games. *Mass Communication and Society*, 5, 279–293.

Beilock, S.L., Jellison, W.A., Rydell, R.J., McConnell, A.R., Carr, T.H. (2006). On the causal mechanisms of stereotype threat: Can skills that don't rely heavily on working memory still be threatened? *Personality and Social Psychology Bulletin*, 32(8), 1059-1071.Bellis, M. (July 26, 2016). Who Invented Video Games? (Online), June 29, 2017, from https://www.thoughtco.com/history-of-computer-and-video-games-4066246

Blumberg, F. C., & Sokol, L. M. (2004). Boys' and girls' use of cognitive strategy when learning to play video games. *The Journal of General Psychology*, 131(2), 151–158. doi: 10.3200/genp.131.2.151-158

Bois, J. E., Sarrazin, P. G., Brustad, R. J., Trouilloud, D. O., & Cury, F. (2002). Mothers' expectancies and young adolescents' perceived physical competence: A year long study. *Journal of Early Adolescence, 22*, 384-406

Borg, O. J. (2014). Is computer gaming really sport? (Online), March 1, 2017. *BBC iWonder.* http://www.bbc.co.uk/guides/zygq2hv

Bowers, M. T. (2011). Playing video games as a supplement to identity: Insights on former college athlete transitions. *Journal of Issues in Intercollegiate Athletics, 4,* 289–308.

Bradmore & Magus. (December 7, 2016). 2016 League of Legends world championship by the numbers. (Online), March 5, 2017. *LoL* Esports. http://www.lolesports.com/en_US/articles/2016-league-legends-world-championship-numbers

Britton, D. M. (2000). The epistemology of the gendered organization. *Gender & Society, 14(3),* 418–434. doi: 10.1177/089124300014003004

Brown, R. M., Hall, L., Holtzer, R., Brown, S., & Brown, N. (1997). Gender and Video game performance. *Sex Roles, 36(11–12)*, 793–812. http://dx.doi.org/10/1023/A:1025631307585

Cashdan, E. (2008). Waist-to-hip ratios across cultures: Trade-offs between androgen- and estrogen-dependent traits. *Current Anthropology, 49*, 1099-1107.

Cassel, J., & Jenkins, H. (1998). Chess for girls? Feminism and computer games. In J. Cassel & H. Jenkins (Eds.), *From Barbie to Mortal Kombat: Gender and computer games* (pp. 2–45). Cambridge, MA: MIT.

Chalabaev, A., Sarrazin, P., Stone, J., & Cury, F. (2008). Do achievement goals mediate stereotype threat?: An investigation on females' soccer performance. *Journal of Sport & Exercise Psychology, 30,* 143-158.

Chan, E. Y. (2008). *Females' video game playing motivation and performance: Examining gender stereotypes and competence goals*. Ph.D. Dissertation, University of Southern California. ProQuest Dissertations & Theses A&I database.

Chaney, I. M., Lin, K-H. & Chaney, J. (2004). The effect of billboards within the gaming environment. *Journal of Interactive Advertising, 5(1),* 1-15.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Newbury Park: Pine Forge Press.

Chick, G. (July 22, 2015). Games and Sports. (Online), April 30, 2017, from http://hraf.yale.edu/ehc/summaries/games-and-sports#citation

Chikhani, R. (October 31, 2015). The History Of Gaming: An Evolving Community. (Online), April 29, 2017, from https://techcrunch.com/2015/10/31/the-history-of-gaming-an-evolving-community/

Cho, J. Y., & Lee, E. (2014). Reducing confusion about grounded theory and qualitative content analysis: Similarities and differences. *The Qualitative Report*, *19*(32), 1–20.

Chopper, R., & Feargorm, R. (2017, February 8). 2017 World Championship Update. (Online), July 24, 2017, from http://www.lolesports.com/en_US/articles/2017-world-championship-update

Conditt, J. (July 14, 2016). IGDA: Number of women in industry rising, still under half. (Online), April 29, 2017, from https://www.engadget.com/2014/06/24/igda-number-of-women-in-industry-rising-still-under-half/

Creswell, J. W. (2012). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.

Dalakov, G. (n.d.). Cathode Ray Tube (CRT) monitor. (Online), July 24, 2017, from http://history-computer.com/ModernComputer/Basis/cathode.html

Dietz, T.L. *Sex Roles* (1998) 38: 425. doi:10.1023/A:1018709905920

Duncan, M. C., Messner, M.A., Williams, W., & Jensen, K. (1990). *Gender stereotyping in televised sports*. Los Angeles: Amateur Athletic Foundation

Eagly, A. H., & Karau, S. J. (1991). Gender and the emergence of leaders: A meta-analysis. *Journal of Personality and Social Psychology*, 60(5), 685–710.

Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109(3), 573–598. http://dx.doi.org/10.1037/0033-295X.109.3.573

Eagly, A. H., & Mladinic, A. (1989). Gender stereotypes and attitudes toward women and men. *Personality and Social Psychology Bulletin*, *15*(4), 543–558.

Eccles, J.S., & Harold, R.D. (1991) Gender differences in sport involvement: Applying the Eccles' expectancy value model. *Journal of Applied Sport Psychology, 3,* 7-35. doi:10.1080/10413209108406432

Edwards, T. F. (April 30, 2013). ESports: A brief history. (Online), March 7, 2017. *Adanai*. http://adanai.com/esports/

Erzberger, T. (June 27, 2016). The 2016 top 10 esports draft. (Online), March 05, 2017. *ESPN*. http://www.espn.in/esports/story/_/id/16454680/the-2016-top-10-esports-draft

Entertainment Software Association (April, 2016). Essential Facts 2016 - Infographics. (Online), July 21, 2017. from http://theesa.ca/2016/10/03/2786/

Everson, J. (July 27, 2013). Why do MOBA's make such good eSports games? (Online), March 06, 2017. *Game Skinny*. http://www.gameskinny.com/avpgu/why-do-mobas-make-such-good-esports-games

Farrell, A., Fink, J.S., & Fields, S. (2011). Women's Sport Spectatorship: An Exploration of Men's Influence. *Journal of Sport Management, 2011, 25* 190-201

First professional videogamer. (n.d.). Retrieved April 27, 2017, from http://www.guinnessworldrecords.com/world-records/first-person-to-be-a-professional-video-gamer

Fisher, B., & Lombardo, J. (September 26, 2016). Sixers purchase esports franchises. (Online), April 10, 2017. *Sports Business Journal.* http://www.sportsbusinessdaily.com/Journal/Issues/2016/09/26/Franchises/Sixers-esports.aspx

Fredricks, J.A., & Eccles, J.S. (2005). Family socialization, gender, and sport motivation and involvement. *Journal of Sport & Exercise Psychology, 27*, 3–31.

FSTA (Fantasy Sports Trade Association). 2013. Industry demographics at a glance. http://www.fsta.org/?page=Demographics (accessed July 14, 2017.).

Gaudiosi, J. (January 30, 2013). League Of Legends And StarCraft II Could Become Olympic Sports As Early As 2020 Summer Games. (Online), April 21, 2017, from https://www.forbes.com/sites/johngaudiosi/2012/08/15/league-of-legends-and-starcraft-ii-could-become-olympic-sports-as-early-as-2020-summer-games/#197e96561d0e

Gibbons, J. L., & Lynn, M., & Stiles, D. A. (1997). Cross-national gender differences in adolescents' preferences for free-time activities. *Cross-Cultural Research: The Journal of Comparative Social Sciences, 31*, 55-69.

Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.

Guttmann, A. (2012*). From Ritual to Record: The Nature of Modern Sports*. New York: Columbia University Press.

Hamari, J., & Sjöblom, M. (2017). What is eSports and why do people watch it? *Internet Research*, *27*(2). doi: 10.1108/IntR-04-2016-0085

Hartmann, T., & Klimmt, C. (2006). Gender and computer games: Exploring females' dislikes. *Journal of Computer-Mediated Communication*, 11(4), 910–931. doi: 10.1111/j.1083-6101.2006.00301.x

Heintz-Knowles, K. E., & Henderson, J. J. (August 2002). *Gender violence, and victimization in top-selling video games.* Paper presented at the annual conference of the Association for Education in Journalism and Mass Communication, Miami, Florida.

Higgs, C. T., & Weiller, K. H. (1994). Gender bias and the 1992 Summer Olympic Games: An analysis of television coverage. *Journal of Sport and Social Issues*, 18, 234-246.

Higgs, C. T., Weiller, K. H., & Martin, S. B. (2003). Gender bias in the 1996 Olympic Games: A comparative analysis. *Journal of Sport & Social Issues*, 27(1), 52-64.

Hofstede, G. (1994), The business of international business is culture. International Business Review, 3(1), 1-14.

Ivory, J. D. (2006). Still a Man's Game: Gender Representation in Online Reviews of Video Games. *Mass Communication and Society*, 9(1), 103-114. doi:10.1207/s15327825mcs0901_6

Jayanth, M. (September 18, 2014). 52% of gamers are women – but the industry doesn't know it. (Online), February 27, 2017. *The Guardian*. https://www.theguardian.com/commentisfree/2014/sep/18/52-percent-people-playing-games-women-industry-doesnt-know

Jenny, S. E., Manning, R. D., Keiper, M. C., & Olrich, T. W. (2016). Virtual(ly) Athletes: Where eSports Fit Within the Definition of "Sport". *Quest*, *69(1),* 1-18. doi:10.1080/00336297.2016.1144517

Jenson, J., & de Castell, S. (2011). Girls @ play. *Feminist Media Studies*, *11*, 167-179. Doi:10.1080/14680777.2010.521625

Johnson, S. (2005*). Everything bad is good for you: How today's popular culture is actually making us smarter*. New York: Riverhead Books.

Kahn, K. F., & Goldenberg, E. N. (1991). The media: Obstacle or ally of feminists. *ANNALS, AAPSS, 515*, 104-113

Kang, J. G., & Morgan, M. (1988). Culture clash: Impact of U.S. television in Korea. *Journalism & Mass Communication Quarterly*, *65*(2), 431–438. doi:10.1177/107769908806500225

Kang, Y., Rowley, C. (2005), Women in management in South Korea: Advancement or retrenchment? *Asia Pacific Business Review*, 11, 213-232.

Kidder, D. L. (2002). The influence of gender on the performance of organizational citizenship behaviors. *Journal of Management*, 28(5), 629–648. doi: 10.1177/014920630202800504

Kim, A. E., Park, G. (2003), Nationalism, confucianism, work ethic and industrialization in South Korea. *Journal of Contemporary Asia*, 33(1), 37-49.

Kim, S., Finch, J. (2002), Confucian patriarchy reexamined: Korean families and the IMF economic crisis. *The Good Society,* 11(3), 43-49.

Kissane, R. J., & Winslow, S. (2016), "You're Underestimating Me and You Shouldn't". *Gender & Society.* Vol 30, Issue 5, pp. 819 - 841

Knocke, K. (August 09, 2016). Why Prize Pools Don't Matter in Esports Anymore. (Online), April 28, 2017, from http://www.ign.com/articles/2016/08/09/why-prize-pools-dont-matter-in-esports-anymore

Kolb, R. W. (2008). *Encyclopedia of business ethics and society*. Thousand Oaks: Sage Publications.

Lanier, T. (November 18, 2014). These 15 nationalities are the world's best gamers. (Online), April 13, 2017. The Richest. http://www.therichest.com/sports/other-sports/these-15-nationalities-are-the-worlds-best-gamers/

League of Legends launches! (2012, December 17). Retrieved July 24, 2017, from https://www.riotgames.com/articles/20091007/260/league-legends-here

Leavitt, L. (April 04, 2016). 5 Reasons Why Korea Is So Good At League Of Legends. (Online), April 30, 2017, https://www.theodysseyonline.com/5-reasons-why-korea-is-so-good-at-league-of-legends

Lee, D. & Schoenstedt, L. J. (2011). Comparison of eSports and Traditional Sports Consumption *The ICHPER-SD Journal of Research in Health, Physical Education, Recreation, Sport & Dance*; Reston6.2 (Fall 2011): 39-44.

Lee, Y. (2017), Women Workforce in the Korean Context. *International Review of Management and Marketing*, 7(1), 403-412

Lopiano, D. A. (2000), Modern History of Women in Sports: Twenty-five Years of Title IX. *Clinics in Sports Medicine*, *Volume 19, Issue 2*, 163 - 173

Lucas, K., & Sherry, J. L. (2004). Sex differences in video game play: A communication-based explanation. *Communication Research*, 31(5), 499–523. doi:10.1177/0093650204267930

Lynch, A. (May 06, 2016). Tracing the 70-year history of video games becoming eSports. (Online), March 7, 2017. *Fox Sports*. http://www.foxsports.com/buzzer/story/esports-explainer-league-of-legends-heroes-of-the-storm-hearthstone-cs-go-dreamhack-050616

McGonigal, J. (2011). *Reality is broken: why games make us better and how they can change the world*. London: Jonathan Cape.

McKinney, L. (January 16, 2017). The 7 Most WTF Scandals In eSports History. (Online), April 10, 2017. *Cracked*. http://www.cracked.com/blog/the-unbelievably-dark-side-competitive-gaming/

Mcmurray, R. G., Harrell, J. S., Deng, S., Bradley, C. B., Cox, L. M., & Bangdiwala, S. I. (2000). The Influence of Physical Activity, Socioeconomic Status, and Ethnicity on the Weight Status of Adolescents. *Obesity Research*, 8(2), 130-139. doi:10.1038/oby.2000.14

McWhertor, M. (October, 13, 2012). The League of Legends team of scientists trying to cure 'toxic behavior' online. *Polygon.* Retrieved from http://www.polygon.com/2012/10/17/3515178/the-league-of-legends-team-of-scientists-trying-to-cure-toxic

Miller, L. (1996). Girls' preferences in software design: Insights from a focus group. *Interpersonal Computing and Technology Journal*, *4(2),* 27–36.

Milne, G. R., & McDonald, M. A. (1999). *Sport marketing: managing the exchange process.* Sudbury, MA: Jones and Bartlett.

Mitrevski, L. (April 6, 2017). 'Fight like a girl' directors: We want to level the playing field. (Online), April 11, 2017, ESports Insider. http://www.esportsinsider.com/2017/04/fight-like-girl-interview/

Mozur, P. (October 19, 2014,). For South Korea, E-Sports Is National Pastime (Online), April 29, 2017, https://www.nytimes.com/2014/10/20/technology/league-of-legends-south-korea-epicenter-esports.html

Nielsen. (2009). Insights on casual games: Analysis of casual games for the PC.

Narishm. (November 13, 2013). League of Legends - Summoner's Rift Regions Map. (Online), April 21, 2017, from http://narishm.deviantart.com/art/League-of-Legends-Summoner-s-Rift-Regions-Map-413345149

OECD Employment Outlook. (2015). Available from: http://www.ifuturo. org/documentacion/Employment%20outlook%202015.pdf.

Oxland, K. (2004). *Gameplay and Design*. Pearson Education.

Papaioannou, A., Karastogiannidou, C., & Theodorakis, Y. (2004). Sport involvement, sport violence and health behaviours of Greek adolescents. *European Journal of Public Health 14*, 168–172.

Partridge, J. (March 17, 2014). Genetically engineered: How MOBAs invaded eSports. (Online), March 19, 2017, Red Bull. https://www.redbull.com/ie-en/genetically-engineered-how-mobas-invaded-esports

Paul, J. (March 3, 2017). By the numbers: Most popular online games right now. (Online), March 6, 2017. Now Loading. https://nowloading.co/posts/3916216

Pavlidis, A., & Connor, J. (2016). Don't be a douche: an introduction to sex- integrated roller derby. *Women in Action Sport Cultures: Identity, Politics and Experience* (pp. 91–110).

PC, M. (March 29, 2015). Twitch and shout: everything you need to know about PC game streaming. Retrieved April 28, 2017, from http://www.techradar.com/news/gaming/twitch-and-shout-everything-you-need-to-know-about-pc-game-streaming-1289103

Pfister, G. (2010). Women in sport – gender relations and future perspectives, *Sport in Society*, 13:2, 234-248, DOI: 10.1080/17430430903522954

Ratan, R.A., Fordham, J., Huang, K., & Strayer, C. (2015). *Shooting for equality: From stereotype threat in games to gender disparity in STEM*. Paper presented at the the Games and Learning Society 11 Conference, Madison, WI.

Ratan, R. A., Taylor, N., Hogan, J., Kennedy, T., & Williams, D. (2015). Stand by your man: An examination of gender disparity in League of Legends. *Games and Culture*, *10*(5), 438–462. doi:10.1177/1555412014567228

Ray, S. G. (2004). *Gender inclusive game design: Expanding the market*. Hingham, MA: Charles River Media.

Reskin, B. F., & McBrier, D. B. (2000). Why not ascription? Organizations' employment of male and female managers. *American Sociological Review*, 65(2), 210–233. doi: 10.2307/2657438

Rozelle, W. (February 16, 2016). 2016 World Championship hits North America. (Online), March 8, 2017. League of Legends. http://www.lolesports.com/en_US/articles/2016-world-championship-hits-north-america

Ruihley Brody J., Billings Andrew C. 2013. Infiltrating the boys' club: Motivations for women's fantasy sport participation. *International Review for the Sociology of Sport 48 (4)*: 435-52.

Sabo, D., & Veliz, P. (2008). Go out and play. Youth sports in America. Women's Sports Foundation. Retrieved from http://www.womenssportsfoundation.org

Saldaña, J. (2009). *The coding manual for qualitative researchers*. London: Sage Publications.

Schmidt, G. (December 21, 2016). Esports sees profit in attracting female gamers. (Online), April 11, 2017. The New York Times. https://www.nytimes.com/2016/12/21/technology/personaltech/video-game-makers-try-to-get-better-at-luring-women-to-esports.html

Shen, C., Ratan, R., Cai, Y. D., & Leavitt, A. (2016). Do men advance faster than women? Debunking the gender performance gap in two massively multiplayer online games. *Journal of Computer-Mediated Communication*, *21*(4), 312–329. doi:10.1111/jcc4.12159

Silberman, L.B. (2005). Athletes' use of video games to mediate their play: College students' use of sport video games. Paper delivered at the 2005 Seminar Series, Caladonian University School of Computing and Mathematical Sciences, Glasgow, Scotland.

Smith, S. L., Lachlan, K., & Tamborini, R. (2003). Popular video games: Quantifying the presentation of violence and its content. *Journal of Broadcasting and Electronic Media*, 47, 58–76.

Stack, P. (n.d.). Video Game Console Timeline - Video Game History - Xbox 360 - TIME Magazine. *Breaking News, Analysis, Politics, Blogs, News Photos, Video, Tech Reviews - TIME.com*. (Online), April 6, 2017, from http://www.time.com/time/covers/1101050523/console_timeline/

Statista. (2015). Most played PC games on gaming platform Raptr in November 2015, by share of playing time. (Online), March 6, 2017. Statista. https://www.statista.com/statistics/251222/most-played-pc-games/

Steele, C.M., & Aronson, J. (1995). Stereotype Threat and the intellectual test-performance of African-Americans. *Journal of personality and Social Psychology, 69 (5):* 797-811.

Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist*, 52, 613– 629. doi:10.1037/0003-066X.52.6.613

Steele, C. M., Spencer, S. J., & Aronson, J. (2002). Contending with group image: The psychology of stereotype and social identity threat. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 379 – 440). New York, NY: Academic Press.

Strauss, A., & Corbin, J. (1994). Grounded theory methodology. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 273–285). Thousand Oaks, CA: Sage.

Suellentrop, C. (August 19, 2014). Those Underappreciated Female Video Game Pioneers. (Online), April 29, 2017, from https://www.nytimes.com/2014/08/20/arts/video-games/those-underappreciated-female-video-game-pioneers.html?_r=0

Sung, S. (2003), Women reconciling paid and unpaid work in a confucian welfare state: The case of South Korea. *Social Policy and Administration*, 37(4), 342-360.

Trepte, S., Reinecke, L., & Behr, K.-M. (2009). Creating virtual alter egos or superheroines? Gamers' strategies of avatar creation in terms of gender and sex. *International Journal of Gaming and Computer-Mediated Simulations (IJGCMS),* 1(2), 52–76

The First Video Game? (n.d.). Retrieved July 24, 2017, from https://www.bnl.gov/about/history/firstvideo.php

Vandewater, E. A., Shim, M., & Caplovitz, A. G. (2004). Linking obesity and activity level with children's television and video game use. *Journal of Adolescence*, 27(1), 71-85. doi:10.1016/j.adolescence.2003.10.003

Walton, G.M., & Spencer, S.J. (2009). Latent ability: Grades and test scores systematically underestimate the intellectual ability of negatively stereotyped students. *Psychological Science*, 20(9), 1132-1139. Doi: 10.1111/j.1467-9280.2009.02417.x

Warr, P. (April 9, 2014). ESports in numbers: Five mind-blowing stats. (Online), March 2, 2017. *Red Bull*. http://www.redbull.com/en/esports/stories/1331644628389/esports-in-numbers-five-mind-blowing-stats

Weed, M. (2009a). Research quality considerations for grounded theory research in sport and exercise psychology. *Psychology of Sport and Exercise, 10(5),* 502e510.

Williams, D., Consalvo, M., Caplan, S., & Yee, N. (2009). Looking for gender: Gender roles and behaviors among online gamers. *Journal of Communication, 59(4),* 700–725.

Wuest, J. (2007). Grounded theory: The method. In P. L. Munhall (Ed.), *Nursing research: A qualitative perspective* (pp. 239–271). Boston: Jones and Bartlett.

Young, H. (May 31, 2016). Seven figure salaries, sold out stadiums: Is pro video gaming a sport? (Online), March 07, 2017. *CNN*. http://edition.cnn.com/2016/05/31/sport/esports-is-professional-gaming-a-sport/

Appendix

Table 1

Participants and Collected Information

Pseudonym	Age	Gender	Experience	Years in the USA	Nationality
Amumu	29	F	3.5	10	Korea
Thresh	28	M	2.5	6	Korea
Miss Fortune	34	M	3.5	20	USA
Warwick	29	F	3	20	USA
Kayle	28	M	2	10	Korea
Jinx	26	F	1	4	Korea
Volibear	24	F	3	5	Korea
Annie	28	F	2	8	Korea
Leona	27	M	2.5	7	Korea
Lulu	27	M	5	6	Korea
Teemo	27	M	4	6	Korea
Zyra	24	F	4	24	USA
Janna	27	F	7	27	USA
Trundle	27	M	5	6	Korea
Ashe	24	F	0	6	Korea
Wukong	28	M	0	6	Korea
Ryze	30	M	4	6	Korea
Galio	20	F	0	6	Korea

| Soraka | 22 | F | 0 | 4 | Korea |
| Twisted Fate | 27 | M | 5 | 8 | Korea |