

“Good Game, Well Played”: The Toxic Effect of Competitive Video Games

An Honors Thesis (HONR 499)

by

Robert Coleman

Thesis Advisor

Amanda Ballenger

Ball State University

Muncie, Indiana

July 2019

Expected Date of Graduation

July 2019

Abstract

Video games are a wonderful way to pass the time. When done in moderation, they can lead to increased hand-eye coordination, higher critical thinking skills, and can even expand social circles. Online video games, however, are a modern parent's worst nightmare. Multiplayer video games with an ESRB rating of Teen or even Everyone can easily turn out to have Mature situations because of one simple reason: players must interact with total strangers in order to enjoy the game.

Toxic environments are generated through a combination of relying on ELO for player self-identification and various scenarios created by problem players. Although competitive video games can be directly related to sports in many cases, including issues with problem players, the same deterrents and punishments may not be applicable.

Acknowledgements

I thank my advisor and friend, Amanda Ballenger, for guiding me on this rite of passage. Her endless patience, diligent suggestions, and positive attitude are among the only reasons why I was able to push myself and finish this thesis. Without her, I would have likely given up on this project long ago.

I also thank my wonderful fiancée, Allie Hartman, for making her own thesis writing look so effortless. It triggered my own competitive instincts that drove me to try and match her pace. Although she still beat me by a mile, I would not have been nearly so productive without her. It is said that if you're the smartest person in the room, you should find another room. I am eternally grateful and humbled that, by marrying her, I will never have to change rooms.

Process Analysis

Video games have been a passion of mine since my mom put me in front of a computer at six years old. Very few days have gone by in that decade and a half where video games haven't influenced me in one way or another. Truly, video games have helped unlock interests that I may not have had otherwise – my drive for leadership, creative spirit, and competitive instinct among them. Over this time, I have also had firsthand experience with the many changes in the video game industry. I have seen games rise and fall, companies go bankrupt because of simple mistakes, and the social context of playing video games go from a fringe pastime to a worldwide

phenomenon. One aspect that has remained the same, however, is the toxic element of competitive video games. Video game players are fairly representative of the whole population. While I've met some incredible people and long-lasting friends through playing video games, I've also run into some terrible, cruel, manipulative individuals. Unfortunately, for as long as I've played competitive video games, I've found that the toxic individuals are far more common than the nice ones.

Competitive video games also have a knack for ruining your day. It's a running joke in competitive communities that competitive players bemoan the fact that they hate the games they play but still return to them day after day for hours on end. Unfortunately, the joke rings true for many players – even myself at one point. But the games are fun, albeit deliberately addictive. Instead, the issue stems from the games revolving around working with a team totally comprised of strangers in an effort to win. Players are unlikely to run into the same person online more than once in their lifetime unless they specifically seek them out. This, combined with the anonymous nature of the games, means that there will almost never be any bonds formed between players. Everyone believes that everyone else on their team is bad at the game unless they majorly contribute to a victory. One of the most frequent quips by players in any competitive video game would be, “This teammate SUCKS!”

The purpose of this thesis was to demonstrate that these kinds of environments are toxic and worth examining further. It's a topic that I'm passionate about: I have observed that competitive video games are becoming more and more popular with young children, and I believe that being exposed to so many toxic mindsets could negatively impact their development.

The process for writing this thesis could be broken down into three categories: describing the video games and their processes, correlating competitive video games and sports, and matching the toxic behaviors of competitive video games to similar behaviors in sports. I chose to compare video games to sports because there are a surprising number of correlations between the two activities, both positive in nature and negative. The first category was simple. After over a decade of video game experience, putting the words to paper and explaining them in laymen's terms was very easy. This also meant that I had a deep and intimate knowledge of the toxic behaviors within competitive video games – it wasn't so much a matter of discovering these behaviors, but proving that they were a problem that should be explored. In order to build the credibility of my argument, I had to trek through the studies that showed the positive benefits of

both video games and sports. I chose the articles that had similar counterparts between sports and video games. Thankfully, these two topics have been researched heavily and gave plenty of choices.

The process became difficult, however, when it came time to making the connection between real world toxic behaviors in sports and virtual ones in video games. Knowing that sports players were occasionally fined for foul language was one thing, finding articles backing up that information was another entirely. Finding examples of players participating in leagues that they were far too over qualified for was also difficult: it happens, but it's not well documented. This required that I become slightly creative with my sources. Generally, I was able to use very reliable sources from former research and news articles. Databases such as PsycINFO and PsycARTICLES provided the research articles, while reliable news outlets such as Nielsen and Statistica provided the numbers. However, there were instances where I was able to get interesting sources. Forum posts made by the video game developers allowed for primary sources. Some news was so obscure, such as a retired Korean football player participating in a local league as a substitute, that the only proof of occurrence was a YouTube video in a foreign language. Ultimately, the conventional and unconventional sources melded together to bring forth the main argument in a compelling way.

It was a struggle to finish this thesis. I have been a procrastinator since I was given my first piece of homework in kindergarten and, unsurprisingly, it reared its ugly head throughout this process. Traditionally, students will write their thesis over the course of two semesters and have it done shortly after. However, I was blessed and cursed with a particularly intensive capstone course that would also span those same semesters. Between this thesis and the capstone course, I believe I've written over 30,000 words. At a certain point, about halfway through the second semester, I had become numb to writing and completely lost my drive for anything academic. Luckily, my capstone course was winding down by then - but my thesis writing suffered greatly. There were many times that I wanted to give up the effort altogether, but I did not want to disappoint and waste my thesis advisor's time. I learned new methods for dealing with procrastination and writing large chunks of words at a time, and in the end, I was excited to produce something that I felt proud about.

Introduction

Video games have seen a suprameteoric rise in popularity in recent years, with an estimated 1.8 billion video game players in 2014 and an additional 500 million having joined the trend since then – about 31% of the world’s population. (Gough, 2018) Of that number, about 28% and 29% of these gamers are either under 18 years old or between 18 and 35 years old, respectively. (Gough, 2018) Video game players also play 6 hours of games a week, on average. (Nielsen 2010) Compare these numbers to another popular past time: sports.

During 2018, approximately 21.6% of the US population participated in sports at some point during the week, or about 71 million individuals. While there hasn’t been data collected on worldwide numbers, it’s safe to extrapolate the US percentage and apply it to the rest of the world: at least 1.62 billion weekly sports players. (Gough, 2018)

When these numbers are compared, it becomes clear that video games are quickly overtaking sports in terms of popularity. One thing remains consistent between sports and video games, however: they are both commonly used as a medium for social interaction. Social engagement is an important factor in the development of children, teens, and young adults; a majority of video game players. A very common and popular way for these groups of individuals to interact with each other is through playing video games. There are healthy ways to play video games – in a cooperative setting that encourages problem solving and working towards a common goal – and unhealthy ways to play video games - in an anonymous competitive setting that focuses on the skill of the player and assigns rankings to the winners and losers. Competitive gaming mimics many aspects of sports, but it doesn’t generate the same kind of teamwork or positive social side-effects because the gameplay is unstructured. Very rarely do players practice with a set group of people to become better as a team. Typically, the players will be thrown into a game with a random set of anonymous strangers and be expected to work together and achieve a common goal. Games will have a reporting tool to punish toxic players, but it is very unreliable and doesn’t stop the toxicity before it happens. This is a problem, as the inherent anonymity means that players, often children, are subject to faceless toxicity from their enemies or, just as frequently, their own teammates.

Children, adolescents, and even young adults, the same demographics that heavily consume video games, are very susceptible to mimicking behaviors that they see in their environment. Gergly and Csibra (2004) and later Gergly, Egyed, and Király (2007) reveal that,

through ‘pedagogy’, a human-specific evolutionary mechanism, children naturally copy the actions of adults around them in an effort to learn. This phenomenon has been shown to be inherent to age ranges from toddlers to young adults. Nielsen and Tomaselli (2010) studied a set of Bushmen children in Southern Africa as well as children in Brisbane, Australia. Both groups of children displayed a mimicry of the actions they observed from the adults that they interacted with, copying their actions to achieve the same desired result. The study proved that, regardless of the cultural, social, or geographical background, children will look to adults for knowledge.

When a child spends many hours per week playing multiplayer video games, they are constantly interacting with a community of strangers. A community whose members are at least 29% adult. When a child spends those hours playing video games with other individuals, that child may be learning just the same as they would from adults in the real world.

I hypothesize that competitive video games cause an increase in toxic behaviors, and a decrease in self-esteem. With so many young adults and children playing competitive video games, it is imperative to understand exactly how these virtual environments are affecting them.

Although a large percentage of the population plays competitive video games and could be affected by these toxic environments, there hasn’t been much conclusive research into the side-effects and long-term changes that competitive video games bring in developing humans. Ideally, this study will pave the way for further understanding about the short- and long-term effects of competitive video games. Much like sports, certain behaviors and skills, both positive and negative, can be established and refined. This study will point towards these specific skills and behaviors. Many papers written on the subject of video games have been about the causation between video games and violence. Additionally, there has been a fair amount of research done over connection between video games and emotions. However, there have been a wide array of conclusions – many of which contradict each other.

If done right, this study will provide a firm review of studies and hypotheses connecting real life sports and online competitive video games. Opportunities for future, more specific research will be revealed and encouraged.

Competitive Sports, Video Games, and Esports

Sports are among the oldest forms of organized physical expression. Some of the earliest evidence of sports can be found near Libya around 6,000 BCE in the forms of swimming and

archery. (Vörös, 2008, 40-43) Since then, sports have been practiced by mankind over. Although the rules may change, and new sports come to life, the main concepts behind sports do not change. Individuals or teams compete against one another or themselves in an effort to achieve an objective of some kind. Typically, these acts are performed to show physical prowess, although some mental games, such as chess and checkers, have been officially classified as sports. A striking similarity can be found between sports and video games.

Video games have been through countless iterations since their inception. “Pong”, created in 1972, is generally regarded as the first video game. But that isn’t the case. The earliest video games were founded in the research labs of computer scientists. Alexander Douglas, a professor of Computer Science, for example, created the first graphical computer game in 1952 that was simply tic-tac-toe. Although the leap in technology between tic-tac-toe and “Pong” isn’t astounding, the speed at which video games have progressed since then is spectacular. The mediums upon which the video games are played have seen big improvement as well, from arcade cabinets with motherboards designed to run singular 8-bit video games, to the present-day computer and console powerhouses that are capable of creating Virtual Reality environments. These improved systems pave the way for improved games. The pixelized 2-D games of pre-twenty-first century have been replaced by video games with graphics so complex that some can be incredibly difficult to distinguish from real life.¹ Video game genres have also exploded, rivalling the same variety as movies: action, adventure, puzzle, mystery, role-playing, fighting, racing, sports, and more. There are also many categories, such as first-person, third-person, single-player, multiplayer, and casual. Currently, however, there is no type of video game more popular than those in the category of competitive and multiplayer. Just last year, three-quarters of Americans aged 14-to-21 participated in competitive multiplayer games, with at least a quarter of adults joining in as well.

Competitive video games can, in the most basic sense, be split into two categories similarly to sports: amateur and professional. Professional matches in competitive video games – also typically known as Esports – make up a small minority of games played. These professional matches are made up of teams of individuals that have been working and practicing together in an effort to achieve the same cohesion sought in real world sports teams. These matches can range from a friendly practice scrimmage to tournaments with multi-million-dollar prizes for first

¹ Look at the latest work of the Unreal Engine for examples.

place winners. The players or teams within Esports may even become sponsored by a company. The Esports scene, much like its real-world counterpart, represents the best of the best in whatever competitive video game is being played. Additionally, while there may also be toxic behaviors found within Esports, between or within teams, their experience is completely alien to that of an amateur video game player, much like that of an amateur and professional football player. Therefore, this thesis will only focus on the unpaid, amateur level of competitive video games.

Amateur competitive video games have several well-known aspects about them. Players that participate will be matched with random, anonymous players that make up their team and the enemy team. Those players are expected to work together to accomplish the objective of the game. The exception to this is when a player chooses to play with their friends. This is often thought to give the grouped friends a significant advantage over randomly assigned players, as these players now have practice playing with each other as well as established communication. When these players win or lose, they are assigned a personal ranking. This ranking moves up and down with each win or loss. As the games are totally anonymous, the only identifying factors for players are their chosen screen name and the rank that they current reside. Players may view another player's recent match performance and rank at any given time.

Benefits of Competitive Sports and Video Games

Competitive sports provide a litany of benefits to those that participate. Individuals of all ages reap cognitive, physical, and psychosocial benefits – but none more so than children. In 2008, a pair of Canadian researchers studied the effects of sports on 11th graders (N = 2,280) and found that not only do shy children who participated in organized sports become more outgoing and less anxious, but generally any child who participated found better interpersonal development and emotional regulation. (Findlay 2008) A more recent study from 2017, conducted in Brazil (N = 614), revealed that children around 13 years old were far more likely to be more developed in prosocial behaviors and cognitive ability than their similar-aged peers if they participated in sports. Reverdito et. al (2017) took a similar approach to understanding the benefits of participating in sports. The study took place in Brazil, examining socially disadvantaged youths, around 13 years old, and the effect of extracurricular sports participation. A resounding degree of the studied individuals showed that, not only do children that participate

in sports tend to have enhanced developmental assets, but they also show a far greater willingness to learn.

It is critical to this study that video games are established to be an inherently beneficial product to those that play them. The goal of this study is not to show that all video games cause increased toxic behaviors and a decrease in self-esteem, but specifically that *competitive* video games do. Video games are products that should be embraced for their ability to bring out creativity, problem-solving, and sociability in those that play them; however, video games and their effects on the individuals that play them have long been contested by researchers. One of the most influential studies on violent video games, conducted by Anderson et. al. (2010), is still being debated by researchers today. Anderson and his team examined dozens of published papers that researched video game effects on behavior and reanalyzed the proposed data in those papers. Anderson's meta-analysis that the increase of aggressive behavior, aggressive cognition, and decreased empathy and prosocial behavior was "robust". (Anderson et al 2010) Interestingly, there was no mention of the specific video games used in this literary meta-analysis. This information is extremely important in such a study, as the breadth of video game content is so diversified. A video game like "Hatred", where the player runs from level to level killing innocent civilians for points, would yield significantly different results than a video game like "Left 4 Dead", where a team of players work together in an attempt to survive a zombie apocalypse. Furthermore, Anderson's study coded for the "violent game player's perspective (first or third person); violent game player's role (hero, criminal, neither); violent game targets (human, nonhuman, both); and duration of time spent playing the assigned video game immediately prior to assessment of the dependent variable." Again, these ideas are not translated into real data in the study. Instead, the extrapolated data simply explores the immediate aftereffects of playing violent video games, both directly after the play session and a short time later – typically weeks or months.

However, there are plenty of studies that both bring to light the benefits of video games and use relevant data. The video game "Minecraft" is an excellent example. Minecraft is a survival, exploration, and building game that is focused around starting from nothing in a strange world and molding it to the player's vision. It is extremely popular with children; the vast majority of millennials have at least heard of the game, if not played it. It is both open-ended and extremely structured. Minecraft goes on forever – the game's physics engine enables the player

to literally never encounter an edge to the world as they keep exploring. At the same time, the game's world is made up of simple blocks with fixed dimensions. While there are countless ways that the world can be generated, the base measurements are always a steady 1x1 block. This system created the perfect environment for growing children and young adults to flex their creative muscles and learn. In fact, researchers and teachers alike have been looking for ways to include Minecraft into the standard curriculum.

Jeffery Stanton conducted a study over fifth-grade students taking geometry to find whether or not Minecraft would be useful as a study tool. (Stanton 2018) Stanton took a look at the effectiveness of learning within traditional instruction, play-based Minecraft, and lesson-based Minecraft. He found that those learning sessions within Minecraft were greatly effective and, additionally, there was little difference between the effectiveness of play-based and structured learning, indicating that just allowing students to play in a Minecraft world that is focused on geometry would be just as effective as actual lessons within the game. Even more, Stanton found that although there was a large deviation of skill level - both within Minecraft and the subject of geometry – each student would advance in either category at a similar rate over time. According to this study, teachers would be able to increase the effectiveness of their geometry lessons by conducting them within Minecraft. Furthermore, if Minecraft was utilized, there would be much less risk of students falling behind if their understanding of the subject was lesser than their peers. The implications of this study are wholly worth investigating further – the potential benefits of incorporating more hands-on learning that is fun and interesting for students cannot be overstated.

Other researchers have been advocating for the game's ability to bring communities of likeminded individuals together. Ringland (2019) has conducted research over teaching programs for children on the autism spectrum and their social interactions and normative play. She believes that technology should be playing a larger role in supporting children's play. She states that "current research often holds offline and online as two distinct experiences." However, Ringland posits that there is no difference between these two environments. She believes that online environments create 'playgrounds' that are just like their real-world counterparts. Another study examined an after-school club, consisting of ten and eleven-year-olds, who played Minecraft together. Bailey (2018) examined how the children played and found that they worked together to bring out experiences from their lives outside of the club. Bailey

found that the club brought out an ‘emergent playfulness’ in the participants, which indicates “new insights into what constitutes the emergent dimension of play.” The social and playful dynamics of the club show that children can create new and different, but not worse or better, ways of collaborating and playing in online communities.

Ultimately, however, it is impossible to ignore Minecraft’s violent nature. The player is constantly forced to fight for survival against zombies, skeletons, wildlife, and even other players. Enemies strive to blow up and destroy the player’s hard work. A common fate for an adventurous player that delves underground is to fall into molten lava and burn live. Players that are not constantly vigilant cannot expect to make it far into the game. Minecraft does have a creative mode, where players are invincible and are free to focus on creative projects, but most players utilize survival mode.² There will always be violent aspects to the game, regardless of how peaceful the game is made in the settings, but the conducted research points to Minecraft containing serious social and educational benefits to the average consumer. If the initial research by Craig Anderson et. al. (2010) was correct, parents would keep this game far away from their children. The benefits from Minecraft are not a unique phenomenon, but a window into what benefits are available through video games as a whole.

Games of Interest

The scope of this study will include three popular competitive video games. These games have been chosen to provide an array of genre, play style, and player base. The variety of games will help show that the topics discussed in this study are universal throughout the competitive video game industry. Each of these games is team based and focused around achieving objectives. These games may have multiple game modes, but this study will only focus on the most popular game mode. In addition to the methods of communication mentioned, each game contains the ability to chat to the opposing team via text chat.

League of Legends

League of Legends is a multiplayer online battle arena video game developed and published by Riot Games. To get into a game, players enter a matchmaking system and indicate their preferred role within the team. The matchmaking system will attempt to pair the players

² Minecraft does not have official statistics on the subject, but any forum post made about the subject will reveal that survival is the main game mode that players utilize. It is also the default game mode, and any new player will begin there.

with others that have similar skill levels and create a team with all the roles satisfied. Once the teams are formed, players will pick their characters and the game will start. There is a brief five-minute window while the players are picking their characters that can be used to strategize and become familiar with their teammates. Once the game starts, players will fight the other team to get kills and destroy objectives. Once a team destroys the other team's final objective, the Nexus, they win. Each match typically lasts around 40 minutes, but it is possible for the game to end as early as 15 minutes through a surrender vote. If a player leaves the game before a match begins, the game can be ended through a surrender vote after five minutes and the match will end in a draw. It is possible to communicate with your team via text chat and pings.³

Counter Strike: Global Offensive

Counter-Strike: Global Offensive is a multiplayer first-person shooter video game developed by Hidden Path Entertainment and Valve Corporation. This game is very akin to paintball or airsoft. Players will indicate what maps they'd like to play on and enter a matchmaking system that attempts to pair players with others of similar skill. Once teams are assembled, the players are put into a match on a random map that they chose. There is a brief warmup period of 90 seconds before the match starts. This period allows players to get familiar with their team before the real match begins. The match consists of 30 rounds that last 3 minutes each. The teams take turns playing as either the Terrorists or the Counter-Terrorists. There are two competitive game modes: defending or capturing hostages and destroying 'bomb sites' with explosives. The first team to win 16 rounds is the winner. The game ends in a draw if both teams win 15 rounds. It is possible to communicate with your team via voice and text chat.

Rocket League

Rocket League is a vehicular soccer video game developed and published by Psyonix. The competitive modes include one on one, two on two, and three on three. The premise of the game is simple: hit a giant soccer ball into the opposing team's goal by hitting it with a car. The team that scores the most points by the end of five minutes will win the game. It is possible to go into overtime, similar to soccer. There are different stages and maps, but aside from slight terrain

³ The pings function as markers on the game field, or map, to quickly notify teammates about changes in the game, whether it be roaming enemies or suggestions in battle strategy. Frequently, however, they are misused to antagonize teammates that are performing poorly.

differences, the soccer-esque game remains the same. It is possible to communicate with your teammates via text and voice chat, as well as premade messages that are created by the game developer.⁴

ELO

Each of these games maintains its competitive nature by tracking its players journey through their respective competitive ladders. Each player maintains an outward facing ‘rank’ in each of the three games. The titles of the ranks differ from game to game but can be summed up simply: the lowest rank contains the lowest skilled players, then each subsequent rank contains higher skilled players until the very top rank, which contains the most skilled players in the game. Additionally, each player maintains an individual competitive score that is referred to as ‘ELO’. The actual ELO score⁵ is typically invisible to all but the game’s internal algorithms. ELO is gained or lost when a player wins or loses a game. ELO is meant to be an indicator for how skilled a player is – when a player does well and wins many games in a row, their ELO will be far above average for their current rank. If a player’s ELO is high enough, that player will gain ranks very quickly. The inverse is also true: a player with low ELO may find themselves losing their rank at a fast pace.

Each player within the selected games must work together with their team in order to win, as is the case with real life sports. However, this presents a problem. In a game where one must rely on a team of random, anonymous strangers, as is the case in the three games selected, it is quite easy to lose a game based off of the poor performance of one or more teammates. Without the ability to practice or communicate with these random team members in advance, matches quickly become the luck of the draw – which team happened to get the highest skilled players on their side this match. While it is possible for an individual to influence the outcome of their match through sheer game prowess alone, it is far more likely, as with real life sports, that the average skill level of the team determines whether or not they win or lose. Teams are also far more likely to lose a match when placed with a player that exhibits toxic behavior.

The problem exacerbates further when a player’s online identity is based solely around their rank and screen name. The player may only play competitive matches with other players of

⁴ Quips like “Nice shot!”, “Wow!”, or “#\$\$@!” (sic). They are typically used in-game right after a player does something very skillful or performs very poorly.

⁵ The ELO system was originally created by Arpad Elo to be used as an improved rating system for chess. Since its inception, it has been used in a myriad of competitive sports and games.

similar rank, and they may not be able to play with friends if their rank difference is too great. This disparity even enters the physical world, where some restaurants in China offer discounts based off of the player's League of Legends rank. (Johanna, 2018) When a player loses and their rank diminishes, their identity is tarnished. Therefore, when a player perceives another member of their team to be the reason for their loss, it may cause even further development of toxic behavior.

Toxic Behaviors

This list of topics provides the main argument to the thesis. It is not comprehensive, but rather designed to explain the main reasons why competitive video games create toxic environments. The topics are chosen so that competitive video game players, when presented with this list, should agree that each of these topics represent negative aspects of competitive multiplayer gameplay from their game or game community. Additionally, any seasoned competitive video game player will be able to relate to the examples given. These topics will be compared to their real-world competitive sport counterparts – for example, the effect and feasibility of walking away from a match in progress will be explored in both virtual and physical realities. The studies that exist currently in sport literature will be connected to the toxic behaviors and environments that are being perpetuated in competitive video games. It is also important to note that these topics are not ignored by the games themselves. The developers of competitive video games take care to try and provide a positive environment for their players. However, any punishments applied to offenders are reactive. Individuals still possess the ability to create toxic environments at will. There are no systems in place that are capable of preventing toxic behavior, short of a basic text chat profanity filter – such systems may not even be possible.

One such act is considered 'griefing' - a situation in which a gamer, rather than completing the tasks outlined by the game, intends to cause grief to the opponents or teammates and disrupt their enjoyment of the game. However, although griefing plays a large role in establishing a toxic environment within a competitive video game, it is not the alone. Casual racism, quitting a match that is in progress, and simply giving up are also contributors to the creation of toxic environments.

Leavers/Leaving the game/Rage-quitting

Interacting with individuals in virtual space contains a key difference from interactions within the physical world – any party may terminate the interaction at any time, regardless of the context. As soon as an individual feels annoyed, uncomfortable, threatened, or even bored, they possess the power to leave the interaction. This power is a significant boon to those that have a high locus of control. However, it also allows individuals to invest very little into the activity that they are participating in. The ability to leave quickly becomes negative when applied to situations where the individuals in the virtual space have a responsibility to see their interaction through to the end.

Participating in competitive video games carries a contract, which players agree to when they decide to play the game. Players are required to finish the match they are playing in before they may leave.⁶ Players that do leave early are considered ‘Leavers’. This rule is created to ensure that Competitive video games typically punish players that leave games early, doling out warnings and temporary or permanent bans. An emerging punishment is to place offending players within a ‘low priority queue’, forcing them to wait upwards of 30 minutes to get into a match – compared to the typical 3 minutes or less – and placing the offenders with other players that frequently leave matches. These punishments are designed to place like offenders together; if a player frequently leaves matches, it makes sense to put them with other players that also leave matches to minimize the damage to rule-abiding players. Although the video games attempt to regulate the Leavers to the best of their ability, the fact remains: leaving a competitive video game is a very easy thing to do.

Example:

Two teams are participating in a League of Legends match, Team A and Team B. It’s early in the game, and neither team is close to accomplishing the game objective. Suddenly, a player on Team A kills a player on Team B, granting Team A an advantage over Team B. Another player on Team B does not believe that his team is able to win anymore, decides that they do not want to waste their time trying to make up for the disadvantage with strategic gameplay, and leaves the match in frustration and an effort to preserve their time.

⁶ This is stated explicitly within competitive game End User License Agreements and Rules.

Now, instead of two full teams competing to win the match, there is one full team with an in-game advantage and one team that is down a player and behind. Very rarely do teams like Team B, who are down a player, win the match. Winning a game against a team with a similar skill level is appropriately challenging as it is. Winning a game as a team of four players, especially in competitive games that are specifically designed for teams of five players, is exceedingly difficult. In this scenario, the rest of the players on Team B lack the skill and advantage to win the match by themselves, as most would, and are forced to wait until the game reaches its 15-minute mark. At that point, the team can surrender and lose the match.

Matches like these turn out to be a useless endeavor in terms of experience and enjoyment. Most players in this scenario, whether they found themselves on either team, would feel as though their time was wasted. Players on Team A may enjoy winning easily and essentially being handed a victory, but the majority of League of Legends players would find that the proceeding minutes after the quitter has left lacks any meaningful gameplay. It is too simple for Team A to concert the efforts of their five players on any one objective and the four players on Team B would be powerless to stop it. Likewise, the players on Team B would not have fun because there is essentially very little they could do to stop their impending defeat.

This phenomenon rarely manifests in physical sport. It takes a tremendous amount of frustration and lack of discipline to walk off the field mid-game. However, it does happen. In 2018, a player of the Buffalo Bills walked off the field and into the locker room. (O'Brien 2018) This player, Vontae Davis, didn't just quit the match, however: Davis retired from football in the middle of a match. The football team was underperforming that season, but the move was widely regarded as very disrespectful. Other NFL players remarked that leaving early is "one of the most selfish things you can do." At the very least, the player could have waited an hour and a half and leave after the end of the game.

The attitude of Davis is embodied within the competitive video game scene. Players frequently desire to leave early and not waste their time on a losing game, even if there is still a chance to win. The Bills had the tenacity, discipline, and team cohesion to look at Davis's walkout as a learning experience. To the younger players of competitive video games, however, it might not be so simple.

Racism

Online communities, and predominantly competitive video games, have seen a huge rise in casual racism. Anonymity makes players bold – again, their only identifiers are their screen name and ELO. Coupled with the fact that players are very unlikely to run into the same teammate or opponent more than once, this creates the perfect scenario for individuals to let out their desire to be edgy and/or hurtful through competitive video games. Thankfully, competitive video game creators have put a heavy emphasis on ridding their platforms of toxicity. Well moderated games are able to ban players, or remove them from the game entirely, after one or two matches of exhibited racism. However, it is in games that modes of communication cannot be moderated, such as Counter Strike, that there becomes a breeding ground for toxicity.

Counter Strike contains a voice chat feature that is very easy to use: simply press your voice chat button and you can broadcast to the rest of your team. Unfortunately, Valve simply cannot moderate the voice chat feature in real time. It would be similarly impossible for them to monitor the voice chat manually after the match. Therefore, Valve is forced to rely on a player driven reporting system – once a player observes a racist act, they may ‘report’ the offending player through an in-game menu. The offending player is then at the mercy of the automated reporting system, which will decide if the player is guilty of racist behavior. Counter Strike players that have reported racist behavior do not get notified when their reports cause the offending player to be punished, if they get punished at all. The automated systems are not perfect, and frequently do not deal out punishments to those that deserve them per the game’s rules.

Example:

A team of five random players are put into a match. The players begin to talk to each other and prepare for the proceeding gameplay. Shortly after the match begins, one of the teammates begins to use racial slurs liberally when referring to players that are performing poorly. The other players are forced to either mute the offending player, and risk losing out on valuable gameplay communication, or deal with racial slurs in the hopes of better teamwork. Players could ask the offending player to stop being offensive, but the players are liable to be called a racial slur themselves.

Players are subjected to racism through competitive video games in ways that they normally would not be in their daily lives.

Complaining to the other team/Blame

A unique aspect to competitive video games is the ability to chat with their team or the opposing team in real time. Players may communicate, coordinate, and work together with their teammates in a capacity that is rarely achieved by physical sport teams. Players may even joke and riff in good nature at their opponents. However, this avenue of communication also opens the opportunity to vent frustration openly and without limit. When a player perceives another team member as performing poorly, they may decide to blame the team member for the team's shortcoming. The player may decide to call the team member out to the rest of his teammates, or even openly insult the team member to the opposing team.

Example:

Team A and Team B are competing in a match of League of Legends. Both teams are similar in terms of skill and the match is proceeding evenly. There is no clear advantage to either team. Within Team A, there is a team member, Eric, that is not performing as well as they could. They've made a few minor gameplay mistakes, but generally have not negatively impacted the game for their team. Suddenly, an important battle occurs, and Eric makes a large mistake. This mistake is at least partially responsible for Team A losing the battle. Team B uses the advantage they receive from winning the fight to go on and secure an important game objective, giving Team B a larger chance of winning the match.

The other team members are understandably disappointed that they have just been set back, but they continue to play the match and try to win. However, one of the team members, Jon, is very upset that one of his randomly assigned teammates may be the cause of his loss and reduction of rank. Jon begins to use the text chat to communicate with the team, announcing that he believes the game is now over and that they have lost because of the mistake. He begins calling into question Eric's skill level and states that Eric does not possess the skill to be at this rank. Jon also uses the text chat to talk to Team B, asking them rhetorically if they have a team member that his team could borrow to replace Eric.

Jon's tirade ruins the morale of Team A. While there may have been a chance that Team A would overcome the disadvantage and secure a win, it is clear that Jon has given up entirely and is now using the remaining time in the match to insult Eric. Eric feels upset that his mistakes, significant or not, have been called out and attacked. In the end, the overall blow to morale

proves too much for Team A, and Team B easily moves in with their advantage to win the match.

As with most competitive activities, the key to team cohesion and productivity is practice and discipline. (McEwan 2019) Given time to practice together, teams tend to become well-oiled machines, with their propensity of clear communication, coordination, and, most importantly, satisfaction with performance. These traits grow and accelerate with time. However, unlike its physical counterparts, competitive video games lack the intimacy of team practice. Players frequently have less than five minutes to familiarize themselves with their assigned teammates before a match. This type of rushed environment breeds situations like the example above.

The solution may seem simple: allow teams more time to practice. That is, after all, how physical sports handle a lack of team cohesion. Unfortunately, it may never be possible to implement this strategy for amateur competitive video games. Competitive video games put a focus on reducing the amount of time it takes to get into a match. Furthermore, even if game developers allowed for more time in the pre-game practice, it could never approach the same length of practice time for a well-coordinated team. (McEwan 2019)

Smurfing/Boosting

Smurfing is the act of creating a new game profile to purposefully play at lower levels to garner a large advantage. Typically, this is done by high level players against lower level players who are new to the game. Hundreds of hours of practice can separate the players, and there is nothing inherently wrong with deciding to start over and play the game fresh. In fact, smurfing is frequently the only way to consistently play with a friend who has just gotten into the game. However, the problem lies within the subset of players that use the act of smurfing for their personal gain. Some players enjoy smurfing for the satisfaction of an easy win. Others do it to ‘boost’ the rank of their new account and/or the account of another. The act of boosting can be done amateurlly, to get their friends to a higher level, or professionally, where one will pay a high-level player real money to win matches with them and artificially improve their competitive score. Frequently, these players will dominate the match and solely be responsible for their team’s win.

It is quite difficult to police the frequent smurfs found throughout the competitive video games. In an open-forum discussion, Riot Games employees explore the idea and the troubles

they've found with it. (Ostrichbeernana 2015) One employee acknowledges that smurfing can ruin gameplay for others, especially when done against "lower-tier players". However, they've found that it was almost impossible to enforce restrictions on smurfs without impacting the experience of regular accounts. Another employee agrees, and states that they "worry the potential harm to other players outweighs the benefits to those players with unmet needs".

There are numerous examples of real-world smurfing as well, where professional sports players will participate in amateur leagues. As with video games, there are cases of light-hearted smurfing intended to play with friends and simply make gameplay interesting. Ji-Sung Park, a retired midfielder for Manchester United, decided to play as a fill-in for a Sunday League game. (슛포르브, 2018) The game was kept interesting and nothing of value was gained or lost for either team. However, the team that had Park garnered a significant advantage with an ex-pro player than the team that didn't. Although this game had low stakes, it would be fairly simple to apply this scenario to real competitive leagues.

Discussion

The previous research supports the thesis. Competitive video games contain a wide array of scenarios in which toxic environments are created by problem players, and individuals may experience these scenarios multiple times a day. This issue is exacerbated by the prolific usage of the ELO system to grant ranks unto players, which are used for self-identification.

Follow-up research to the ideas explored in this thesis would ideally take the form of a long-term study. Understanding any major psychological changes in developing children is a goal of this future research. Therefore, an effective continuation of this research would take the form of following groups of children that either did or did not play competitive video games such as Fortnite, Super Smash Bros., Overwatch, or the games outlined in this thesis. It could also be beneficial to examine how different communication methods affected the results based on the game that was played – whether the player could communicate via voice or text chat, if at all.

Competitive video games are in an ever-changing state. If players of the games explored were to look back four or five years earlier, the games would be near unrecognizable. It is unknown if the same can be said for the toxic behaviors that are exhibited by some of these players. These behaviors may stay stagnant in their form or evolve into something completely different. This research hopes to raise awareness that, in the current state, competitive video

games offer challenges and negative environments that can affect players in unknown ways, both in the long-term and the short-term. The similarities between sports and competitive video games helps bridge the gap of the unknown, and further prove that similar toxic behaviors bring about similar negative psychological effects.

Works Cited

- 숏포러브, S. F. (2018, September 08). Retrieved June 22, 2019, from <https://www.youtube.com/watch?v=VqM7SZU1Qgk>
- Anderson, C. A. (2007). *Violent video game effects on children and adolescents : theory, research, and public policy* D. A. Gentile & K. E. Buckley (Eds.). Oxford ; Oxford University Press.
- Assor, A., Vansteenkiste, M., & Kaplan, A. (2009). Identified versus introjected approach and introjected avoidance motivations in school and in sports: The limited benefits of self-worth strivings. *Journal of Educational Psychology, 101*(2), 482–497.
<https://doi.org/10.1037/a0014236>
- Bailey, C. J. (2018). Investigating the lived experience of an after-school Minecraft club (Doctoral thesis). Retrieved from ProQuest Information & Learning database. (UMI No. AAI10694185)
- Dewar, A. J., & Kavussanu, M. (2012). Achievement goals and emotions in team sport athletes. *Sport, Exercise, and Performance Psychology, 1*(4), 254–267.
<https://doi.org/10.1037/a0028692>
- Dewar, A. J., Kavussanu, M., & Ring, C. (2013). The effects of achievement goals on emotions and performance in a competitive agility task. *Sport, Exercise, and Performance Psychology, 2*(4), 250–264. <https://doi.org/10.1037/a0032291>
- Ferguson, C. J., & Rueda, S. M. (2010). The Hitman study: Violent video game exposure effects on aggressive behavior, hostile feelings, and depression. *European Psychologist, 15*(2), 99–108. <https://doi.org/10.1027/1016-9040/a000010>
- Findlay, L. C., & Coplan, R. J. (2008). Come out and play: Shyness in childhood and the benefits of organized sports participation. *Canadian Journal of Behavioural Science / Revue Canadienne Des Sciences Du Comportement, 40*(3), 153–161. <https://doi.org/10.1037/0008-400X.40.3.153>

Free Sushi for League of Legends Challenger Ranks. (2018, August 08). Retrieved from <https://youxistory.com/2014/07/08/free-sushi-for-league-of-legends-challenger-ranks/>

Gergely, G., & Csibra, G. (2004). The social construction of the cultural mind: Imitative learning as a mechanism of human pedagogy. *Interaction Studies: Social Behaviour and Communication in Biological and Artificial Systems*, 6(3), 463–481. <https://doi.org/10.1075/is.6.3.10ger>

Gergely, G., Egyed, K., & Király, I. (2007). On pedagogy. *Developmental Science*, 10(1), 139–146. Retrieved from <http://10.0.4.87/j.1467-7687.2007.00576.x>

Gough, C. (2019). U.S. Average Age of Video Gamers 2018. Retrieved May, 11, 2019 from: www.statista.com/statistics/189582/age-of-us-video-game-players-since-2010

Gough, C. (2019). Number of Gamers Worldwide 2021. Retrieved May, 11, 2019 from: www.statista.com/statistics/748044/number-video-gamers-world/

Granic, I., Lobel, A., & Engels, R. C. M. E. (2014). The benefits of playing video games. *American Psychologist*, 69(1), 66–78. <https://doi.org/10.1037/a0034857>

Guskin, E. (2018, March 9). Teenagers are fueling a competitive gaming tidal wave. *The Washington Post*, Retrieved from <http://washingtonpost.com>

Lane, H. C., & Yi, S. (2017). Playing with virtual blocks: Minecraft as a learning environment for practice and research. In F. C. Blumberg & P. J. Brooks (Eds.), *Cognitive development in digital contexts*. (pp. 145–166). <https://doi.org/10.1016/B978-0-12-809481-5.00007-9>

Larson, R. W., Hansen, D. M., & Moneta, G. (2006). Differing profiles of developmental experiences across types of organized youth activities. *Developmental Psychology*, 42(5), 849–863. <https://doi.org/10.1037/0012-1649.42.5.849>

Lobel, A., Engels, R. C. M. E., Stone, L. L., & Granic, I. (2019). Gaining a competitive edge: Longitudinal associations between children’s competitive video game playing, conduct

problems, peer relations, and prosocial behavior. *Psychology of Popular Media Culture*, 8(1), 76–87. <https://doi.org/10.1037/ppm0000159>

McEwan, D. (2019). The effects of perceived teamwork on emergent states and satisfaction with performance among team sport athletes. *Sport, Exercise, and Performance Psychology*. Advance online publication. <http://dx.doi.org.proxy.bsu.edu/10.1037/spy0000166>

Meindl, P., Yu, A., Galla, B. M., Quirk, A., Haeck, C., Goyer, J. P., ... Duckworth, A. L. (2018). A brief behavioral measure of frustration tolerance predicts academic achievement immediately and two years later. *Emotion*. <https://doi.org/10.1037/emo0000492>

Nielsen. (2014, May 27). Multi-Platform Gaming: For the Win! Retrieved from www.nielsen.com/us/en/insights/news/2014/multi-platform-gaming-for-the-win.html

Nielsen, M., & Tomaselli, K. (2010). Overimitation in Kalahari Bushman Children and the Origins of Human Cultural Cognition. *Psychological Science*, 21(5), 729–736. <https://doi.org/10.1177/0956797610368808>

O'Brien, Cortney. (2018, September 18) So, a Buffalo Bills Player Quit Football in the Middle of a Game. His Teammates Respond. *Townhall*, Retrieved from <https://townhall.com>

Ossenfort, K. L., & Isaacowitz, D. M. (2018). Video games and emotion regulation: Aging and selection of interactive stimuli. *GeroPsych: The Journal of Gerontopsychology and Geriatric Psychiatry*, 31(4), 205–213. <https://doi.org/10.1024/1662-9647/a000196>

Ostrichbeernana, C. (2016, May 26). Let's talk Smurfs, Snow, and Bans in Ask Riot [Web log post]. Retrieved June 22, 2019, from <https://na.leagueoflegends.com/en/news/community/q/lets-talk-smurfs-snow-and-bans-ask-riot>

Poliseo, J. M., & McDonough, M. H. (2012). Coping effectiveness in competitive sport: Linking goodness of fit and coping outcomes. *Sport, Exercise, and Performance Psychology*, 1(2), 106–119. <https://doi.org/10.1037/a0026382>

- Reverdito, R. S., Galatti, L. R., Carvalho, H. M., Scaglia, A. J., Côté, J., Gonçalves, C. E., & Paes, R. R. (2017). Developmental benefits of extracurricular sports participation among Brazilian youth. *Perceptual and Motor Skills, 124*(5), 946–960.
<https://doi.org/10.1177/0031512517724657>
- Ringland, K. E. (2018). Playful places in online playgrounds: An ethnography of a minecraft virtual world for children with autism (Doctoral dissertation). ProQuest Dissertations Publishing database. (UMI No. 2099224285).
- Rubin, V. L., & Camm, S. C. (2013). Deception in video games: examining varieties of grieving. *Online Information Review, 37*(3), 369-387.
- Stanton, J. M. (2017). Effects of Minecraft as an instructional tool for teaching geometry at the fifth-grade level (Doctoral dissertation). ProQuest Information & Learning database. (UMI No. 1917682687).
- Vörös, G. (2008). *Egyptian Temple Architecture: 100 Years of Hungarian Excavations in Egypt*. (D. R. Evans, Trans.) Budapest, Hungary: Kairosz Press. (Original work published 2007)