

Women's Influence on Culture in Collegiate Esports

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ABSTRACT

With the rising popularity of esports, it is more important than ever to examine this male dominated sport along gendered lines. In competitive video game spaces, women are targets of harassment and toxic speech more often than men, leading to the need for coping strategies. This thesis looked at collegiate esports teams to see if men and women felt similarly about team culture and inclusion while playing on these teams. The hypotheses of this study predicted correlations between variables related to team culture, inclusion, and coping strategies along gendered lines. Results indicated that all players used gender masking the least of the all the coping strategies, women report using avoidance as a coping strategy more than men, team culture was positively correlated with inclusion, and that women feel less included on their esports teams than men. A discussion along with future directions followed and largely advocated for the separation of esports teams by gender to alleviate institutional access disadvantages that women have when playing competitive video games.

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GENERAL AUDIENCE ABSTRACT

Esports is the name for competitive video games. Esports are often played in teams, such as on games which require two or more players to collaborate for the common goal of winning. While gender and video games has been studied extensively, as well as on women in professional esports; however, women's influence on collegiate esports has not been studied as broadly, and this paper takes a culture-creation perspective on this topic. This study looked at three different variables: team culture, inclusion, and coping strategies for harassment. Then the survey was distributed to collegiate esports players to see how these are impacted on gendered lines. This paper found that all players used gender masking the least of the all the coping strategies, women report using avoidance as a coping strategy more than men, team culture was positively correlated with inclusion, and that women feel less included on their esports teams than men. A discussion along with future directions followed and largely advocated for the separation of esports teams by gender to alleviate institutional access disadvantages that women have when playing competitive video games.

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Introduction

Forty-eight percent of women play video games, yet only 5% of professional esports players are women (G2A.com, 2023). Esports, or electronic sports, is a growing business, with revenue in 2023 reaching over \$1.39 billion (Yahoo!, 2023). With the rise of professional-level success, colleges across the nation have started looking at esports as a serious investment into a future market, offering scholarships and funding to their collegiate esports programs (Schaeperkoetter et al., 2017; Taylor & Stout, 2020). Additionally, some universities have dedicated majors surrounding esports, with class offerings such as “Introduction of Esports Coaching” and “Esports and Healthy Gaming” (*Esports Degree*, 2023).

At any level of play, esports involve communication. Scholarship has analyzed video game communication in two specific ways. The first is human-computer communication, where the video game responds to inputs by the user, and the user, in turn, responds to outputs by the computer (Valkenburg et al., 2016). Secondly, video games offer human-to-human communication mediated by computers in text and voice chats and game features such as avatars and predetermined emotes (Holz Ivory et al., 2014; Pena & Hancock, 2006). Esports players rely on communication primarily due to the high coordination needed to run plays or react to certain in-game stimuli (Tang et al., 2021). This communication is primarily through the in-game or third-party voice channels such as Discord. Because esports rely heavily on voice communication, without technology such as voice alterations, it can be easy to identify the gender of many people in gameplay (Fox & Tang, 2016).

Despite the growth of esports, the industry suffers from gender discrimination, harassment, and abuse. Competitive video games are known to have a player base of people who are discriminatory toward women, both with their in-game actions and through explicit verbal

communication (Fox et al., 2016; Holz Ivory et al., 2017; Fox et al., 2018). Rogstad (2022) looked at 21 different peer-reviewed articles on esports and found that esports exclude women like traditional sports do. Still, without the same athletic barriers that women face: “Traditional sports and esports thus discursively link masculinity, athleticism, and competition together in very similar ways” (Rogstad, 2022, p. 209). Another case study looked at Geguri, a South Korean woman professional esports gamer, the only woman to date to play in the *Overwatch* League. In Korea, she was heralded as a "feminist icon" despite Geguri telling magazines and other feminist publications not to affiliate her with feminist movements because she believed she would receive backlash from the gaming community (Cullen, 2018). All of these showcase a culture of expecting women to uphold the idea of video games as a masculine space.

Choices made by competitive esports organizations exacerbate gender differences. Some games, such as Riot Games’ *Valorant* and Valve Corporation’s *Counter-Strike: Global Offensive*, offer professional women's leagues for esports (Bencomo, 2023). However, many other competitive video games do not offer women’s leagues, exacerbating gender differences in leagues with no women members even though women are technically permitted (Cullen, 2018). Because of this, women often have a specific place in esports as viewers, broadcasters, and support - not players (Darvin et al., 2021; Taylor et al., 2020). Other factors play a part in the gendered environment of esports, such as video games being in a hostile environment for women through toxic behavior and language that drives many interested women away from competitive video games altogether (Fox et al., 2016; Darvin et al., 2021; Kim & Kim, 2022; Rogstad, 2022).

Therefore, women's presence influences the culture creation in video games, and their presence, though often questioned, still contributes to the culture. Traditionally explored in organizational communication, it is well established that communication creates culture. Fox and

Tang (2016) found that women use specific coping strategies to influence certain gendered interactions while playing video games, such as masking their gender and avoiding confrontation. These coping strategies inform the present study into how these coping strategies may influence team culture.

There is gender-based harassment in competitive video games; however, it is unclear if to what extent harassment is an issue in collegiate esports teams. A higher percentage of women play in amateur collegiate esports, about 8.2%, even if they never plan to play professionally (Moley, 2022). This thesis aimed to determine the impact of gender-based coping strategies on culture and whether women feel included in the team compared to their male counterparts. Inclusion not only considers whether they are present on the team but also if they feel like they belong and can speak up as their authentic self (Jansen et al., 2014; Mor Barak, 2015).

The literature review will begin with explorations of esports, concepts and vocabulary, and communication in video games. Then, the manuscript will address gender, specifically gender in both video games and esports, including coping strategies for women who play video games. Finally, results from a survey of collegiate esports players about their experiences with team culture, harassment coping strategies, and inclusion are explored to answer the question of to what extent women influence collegiate esports team culture.

Literature Review

Esports and Collegiate Esports

The esports market revenue surpassed \$1.1 billion in 2019, with a total global audience of 454 million viewers (Newzoo, 2019). In 2022, the esports market was valued at \$1.39 billion (Yahoo!, 2023). Each year, universities and colleges award over \$16 million in scholarships to

collegiate esports athletes, according to the National Association of Collegiate Esports (NACE, 2023). Projections for growth in esports viewership continue to skyrocket (Gough, 2023).

The term “esports” is defined as an umbrella term that encapsulates organized competitive matches mediated by human-computer interfaces where players compete before an audience, often in coordinated leagues, ladders, and tournaments professionally or amateurlly (Darvin et al., 2021; Hamari & Sjoblom, 2017; Rogstad, 2022). Many video games offer professional esports teams whose players compete at the highest level. Like collegiate athletics, some players can turn pro and make an average of \$410,000 per year on a professional esports team salary (Studholme, 2023). Within communication research, esports are often examined in terms of media effects and audience motivations for watching broadcasts (Barney & Pennington, 2023; Cullen, 2018; Hamari et al., 2017; Lim et al., 2020; Tang et al., 2021; Wantanabe et al., 2022; Xiao, 2020; Yu et al., 2022). However, other studies have explored more organizational topics such as how esports are structured (Taylor et al., 2020), and the barriers women face in approaching esports (Darvin et al., 2021; Rogstad, 2022).

Esports are organized primarily in leagues that correspond with video games that help to broadcast competitive video games (Hamari et al., 2017; Holden & Baker, 2019). The most popular esports games are Riot Game’s *League of Legends*, Riot Game’s *Valorant*, Blizzard Entertainment’s *Overwatch 2*, Psyonix’s *Rocket League*, and Valve Corporation’s *Counter-Strike: Global Offensive (CS:GO)*. While these games are diverse in the ways they are played, all of them are competitive, which makes them exciting for esports viewers to watch (Tang et al., 2021; Yu et al., 2022). Leagues often have teams, though one study found that people who watch esports regularly often do not have an allegiance to a team, like many people who watch traditional sports might have (Xiao, 2020). A lack of marketing for specific teams within esports

leagues leads people to identify more strongly as fans of a video game rather than fans of a particular esports team (Xiao, 2020).

Esports are not only played on the professional level but also on the collegiate level. However, unlike traditional collegiate athletics, relatively few universities invest in varsity esports teams, which involves recruitment and awarding scholarships based on esports performance (NACE, 2023; Taylor et al., 2020). For schools that do choose to invest in varsity esports, recruiting for their teams often renders other schools unable to compete with these specifically curated teams since many schools are largely club-only.

Where esports should be hosted on campus remains an unanswered question. Universities often hesitate to include esports under their athletics department, especially large state schools where athletics are a core part of the school's identity. One study noted that many universities are not interested in placing esports within the department of traditional athletics but are excited about putting esports in STEM to recruit top computer science students (Taylor et al., 2020). Universities believe that esports are a significant draw and benefit for their computer science students, and investing in their esports programs will bring in high-quality computer science candidates (Taylor et al., 2020). This is similar to where other universities have treated games such as chess because chess players tend to attract engineering candidates (UMBC, 2023). Perhaps because esports are not in athletics departments, there has been less attention to gender equity in esports than NCAA sports.

Federal courts have ruled that esports do not qualify as an athletic sport for the purposes of Title IX regulations. Title IX, part of the Education Amendments of 1972, is a law that prohibits sex discrimination in education programs or activities that receive federal financial assistance (Office for Civil Rights, 2021). In February 2023, a district judge in Florida ruled that

esports, for the purposes of having a balanced number of men's and women's sports teams, is not considered a sport (Navarro et al. v. Florida Institute for Technology, Inc., 2023). This ruling involved six members of the Florida Institute for Technology's (FIT) varsity men's rowing team, which had been cut by FIT in favor of an esports team (Castillo, 2023; Navarro et al. v. FIT, Inc., 2023). The judge ruled in favor of the men's rowing team, setting a precedent for esports not to be considered sports for the purposes of having equal men's and women's teams. This means that schools cannot count an esports team when considering gender parity in athletics (Navarro et al. v. FIT, Inc., 2023). However, it remains untested before the courts what other parts of Title IX regulations would apply.

Before 1972 when Title IX was enacted, many people believed that there was simply no interest in women's sports. Few co-ed universities had women's varsity intercollegiate teams, and the NCAA had no women's divisions, instead relegating women's college sports to the Association of Intercollegiate Athletics for Women. Today, 43% of NCAA athletes are women (McGuire, 2023) and a record-setting 55,000 fans attended a preseason 2023 women's basketball game between the University of Iowa and DePaul University (Ellison, 2023). However, a boom in participation in women's sports followed the law, which showed that ultimately there were societal and institutional pressures that barred women from participating in sports. Some believe that taking in esports and, similarly, other non-athletic team games and creating a women-only team will help to grow interest in video games for women as a whole (Darvin et al., 2021).

However, esports have eluded Title IX scrutiny partly because esports are not a part of athletic departments. As stated before, esports has the most interest in universities for bringing in strong STEM candidates, specifically computer science candidates (Taylor et al., 2020). Some universities promote esports teams or fund varsity programs to improve the college's game

design academic programs. Other universities offer esports-specific majors and M.B.A. programs, such as an esports management degree, usually in business colleges (*Esports Degree*, 2023). For example, the University of North Dakota offers four different specialties for someone who wants to pursue a four-year esports degree: Esport Performance, Coaching, and Health; Esport Communications; Esport Media Production; Esport Business (*Esports Degree*, 2023). Therefore, motivations for colleges to fund varsity teams differ, though most universities do not tie esports to their athletic departments.

Finally, one major reason that the Florida judge rejected esports is because esports do not have a collegiate governing body (Navarro et al. v. FIT, Inc., 2023). A task such as this may prove impossible without aid from video game development companies because no formal rules and regulations could be set without their involvement (Navarro et al. v. FIT, Inc., 2023). Competitive video games often have regular updates that change how the game is played. A fun part of being in competitive video game communities is keeping up with the “meta:” “a perceived optimal or dominant playing strategy that is usually popular within an esports at that specific point in time” (Kokkinakis et al., 2021). With video game companies in complete control over the often-shifting rules and regulations, a collegiate esports governing body would have trouble forming (Navarro et al. v. FIT, Inc., 2023).

Concepts and Vocabulary

Competitive video games have specific categories based on the gameplay format (Gutierrez, 2023). First-Person Shooter (FPS) games and Third-Person Shooter (TPS) games are competitive video games whose objective usually involves one team of players fighting another team of players. These games typically depend on character abilities or weapon abilities to help

encourage a variety of play styles and have players complete various competitive objectives. The difference between FPS and TPS games is that the former has the camera angle at the same place where the character's eyes would be, while the latter places the camera angle over the character's shoulder. Researchers often study FPS and TPS games within communication video game research (Fox et al., 2016; Fox et al., 2018; Holz Ivory et al., 2014; Holz Ivory et al., 2017; Kim et al., 2022).

Turn-based Strategy (TBS) games are competitive games that depend heavily on out-maneuvering or out-thinking an opponent or opponents. These games rely on players taking turns, ending with different specific win conditions. Examples of TBS games are digital card games such as Blizzard Entertainment's *Hearthstone* and Wizard of the Coast's *Magic: The Gathering Arena*.

Finally, while there may be other categories of competitive video games, for this study, the last category of video games is Multiplayer Online Battle Arena (MOBA) games. MOBA games offer a top-down view of a game and often rely on characters' abilities or weapons to bring variety to the game. Popular MOBA games include Riot Games' *League of Legends* and Valve Corporation's *Defense of the Ancients 2 (Dota 2)*.

Communication in Video Games

All video games involve communication. At its core, video games are communication between humans and machines. When players use their keyboard or controller, they communicate with the computer, and the game communicates back with them by changing something on the screen. Some of the earliest research on video games looked at immersion, or how much the player gives the video game their full attention (Christou, 2014; McMahan, 2004).

Beyond just communicating with the computer, scholars have also noted that in single-player games, players have often felt an emotional connection with non-player characters (NPCs) (Coulson et al., 2012). When assessing participants who played a single-player role-playing game (RPG), one study noted how participants made genuine connections to their character companions and rated them favorably in terms of likability (Coulson et al., 2012). While all video games may include communication, certain specific communications pertain to esports.

Competitive video games can also be seen as human-to-human communication mediated by computers. While it may be easy to understand how FPS and MOBA games have interpersonal communication between players, communication in video games goes beyond just these gaming categories into non-competitive games. Cooperative (co-op) games or massive multiplayer online (MMO) games allow two or more people to play synergistically and beat the game together without human subjects as obstacles to win conditions. Some studies have examined the positive effects of playing video games with close interpersonal relationships, such as a romantic partner or family member. One study found that video games aid in relationships and increase communication understanding between participants (Halbrook et al., 2019). While it may be true that competitive video games have the potential to do the same, results are mixed on whether playing against humans or machines builds a team up or tears it apart.

First, competitive video games have different interpersonal communication options available to players. The multiple types of computer-mediated communications usually hinge on one user's relationship to another in a match (Ducheneaut & Moore, 2005). In competitive teams, teammates are often the closest communication available to players. Many games, such as *Overwatch 2*, *League of Legends*, *CS:GO*, *Valorant*, and *Rocket League*, have direct voice communication with teammates (voice chat). Using a microphone, teammates have voice access

to each other and can make real-time callouts vital to team success (Fox et al., 2016; Kim et al., 2022).

Second, it is common that opponents are unreachable through voice chat, instead only reachable through text chat options (Wadley et al., 2015). Practically speaking, unlike in traditional sports, there is not much communication that needs to occur with opponents, since the video game acts as a referee, and gameplay outside of those bounds is strictly enforced. Thus, communication with the game itself is far more common than communication with opponents and often allies in competitive video game settings such as FPSs and MOBAs. According to Dictionary.com, emotes are “a typed command or code that is translated into a descriptive account of an action or emotion, or that causes one’s in-game avatar to perform an action or emotion” (2023). Because every communication with an opponent requires typing or is limited to emotes that are regulated by the game, communication has far less friction with teammates than with opponents (Wadley et al., 2015). Because of this, many players voice their frustrations with teammates, leading to toxic behavior and communication.

Toxic Behavior and Communication

The subject of toxic communication is one that is often studied in video games. Toxic language is defined as speech acts and behavior in video games that puts teamwork at a disadvantage and can include but is not limited to bullying, racism, hate speech, vulgarity, fraud, and threats (Kou, 2020; Kwak et al., 2015; Mohan et al., 2017; Zsila et al., 2022). In video games, there are some specific terminologies associated with toxic behavior (though not all relate to toxic communication) such as *griefing*, *flaming*, and *throwing*. In the past, literature on toxicity often assumed aggression and literature investigated whether violence or competition

made players use more toxic language. Multiple studies proved that while violence could be a factor in determining the causes of toxic behaviors, competition ultimately proved to be the factor that influenced toxic behavior more (Adichi et al., 2011; Hawk et al., 2021). Many studies have looked at violent and non-violent competitive games and found toxicity to be comparable regardless of the level of violence in the game (Adachi et al., 2011; Hawk et al., 2021; McLean et al., 2020).

Many video games have machine learning algorithms to regulate toxic communication. Game genres such as FPSs and MOBAs allow players to surveil each other's communication and report whatever the player deems inappropriate. At the advent of mainstream video games, gaming companies did not have the technology to automate computer communication regulation, but modern adaptations to machine learning and AI technology have allowed for computers to be the sole regulators of reports (Martens et al., 2015). It is far easier for computers to regulate text chat conversations than voice chat conversations, which historically has led to a lack of punishment toward people who use toxic communication in voice chat (Martens et al., 2015; McLean et al., 2020).

For this reason, it is far more likely in video games for players to exhibit toxic behaviors toward their teammates than toward the opposing players, a key difference from traditional athletics. In traditional sports, it may be common for toxic outbursts to occur toward opponents or the referee, though outbursts to teammates are not unheard of. The difference with competitive video games is the culture around toxicity toward teammates (McLean et al., 2020; Monge & O'Brien, 2021). When people queue to play competitive video games, they often have teammates who are strangers that they will likely never play with again. Though, indeed, teams in video games work well when there is positive and consistent communication (Fox et al., 2016), some

players will still be toxic toward their teammates in voice chat because they know that the surveillance is laxer, and they are less likely to get punished by the game (Martens et al., 2015). A common punishment is to mute a player, but punishments as severe as removal from the team or a ban from the game are occasionally imposed (Blackburn & Kwak, 2014).

Theoretically, this group dynamic in communication shifts when players are on the same team and play regularly together, such as in esports. However, little research has gone into the use of toxic language and behavior in collegiate esports teams. One study on collegiate esports teams and inclusion found that players often did not know where to report toxic behavior when it occurred on their esports team (Cote et al., 2023). This continual lack of systematic support allows for the widespread gender-based harassment to potentially leak into collegiate esports teams.

Gender and Video Games

According to Clement (2023), 49% of all players of video games are women. Nevertheless, assumptions about gender and who is typically considered a “gamer” still skew masculine. Many of these assumptions hinge on invisible perceptions of certain game genres as above other game genres such as violent games, shooters, and MOBAs (Paaben et al., 2016), that allow for the overwhelmingly male-dominated genres of games to be almost exclusively considered in what makes someone a “gamer.” Thus, historically a white, male, geeky ideal became synonymous with the title of “gamer” (Darvin et al., 2021; Paaben et al., 2016; Taylor et al., 2020). Many women have had to face the consequences of this assumption when playing competitive games.

Researchers have discovered a variety of effects of video games that specifically pertain to gender. Often, especially in older video games, the only options for avatars were male or female leading to certain norms around how people react to different avatars. One study that measured the sex of the avatar, the gender of the participant, and the attractiveness of the avatar found that the most attractive avatars received help from others, but lower-rated attractive female avatars received less help from their peers in the game compared to their male counterparts (Waddell & Ivory, 2015).

Young women do not have the same access to video games as young men do. Researchers have been concerned about how to get women to play more competitive video games and some have noted that gendered stereotypes stop girls from receiving computers consoles or other video game accessories as gifts and they are taught that these aren't the kinds of gifts that girls would want (Darvin et al., 2021). However, leaving childhood the only reason why women are not playing as many competitive video games would leave a major gap of the women who have tried to play video games later in life.

Gender-based Harassment in Video Games

Since the advancement of communication in video games to include direct interpersonal communication, researchers have studied the way that men have targeted women in games for gender-based and sexual harassment (Fox et al., 2016; Fox et al., 2017; Fox & Potocki, 2015; Holz Ivory et al., 2014). Some researchers have investigated chat logs or studying subjects playing video games in a lab to determine how many of these utterances included sexual or gender-based comments (Holz Ivory et al., 2014; Martens et al., 2015; Waddell et al., 2015).

One study has looked at a woman's life cycle in video games (Kim et al., 2022). These researchers found that often women joined their friends in playing games at first. Then, when

they gained confidence, they decided to branch off and try to play competitively on their own. Once they started playing on their own, they realized how hostile video games are towards women and decided to either stop playing competitively or go back to exclusively playing with their friends (Kim et al., 2022). Therefore, because video games are often a hostile environment, women tend to choose to stop playing competitive video games.

Other research has corroborated this as they have found that women tend to ruminate on specific gendered experiences (Fox et al., 2016). Research has found video games especially harmful to women when experiencing harassment. Therefore, many researchers look at women's coping strategies to negate this gendered harassment.

Coping strategies for gender-based harassment in video games

Women face particular discrimination in video games, which leads to them having specific coping strategies to mitigate the harassment that they face when they play video games. The first significant strategy that women have access to in video games is gender masking (Fox et al., 2016). Gender masking is when someone takes an action to hide their gender, something that people are uniquely able to do because of the digital platform that video games take place on. Gender masking can come in the form of someone altering their voice in some way, either practically or with some sort of program on the computer, or completely abstaining from using voice channels and using male avatars or usernames to socially queue to other players at the beginning that are male (Fox et al., 2016). Other coping strategies include avoidance, denial, seeking help, and self-blame (Fox et al., 2016).

However, as noted above, toxic behavior and communication are expected experiences when playing a video game. Challenges arise on every team, whether it be work-related or athletic. Therefore, this paper hypothesizes that esports teams also have incidents of harassment

and, therefore players will have coping strategies to deal with harassment on the team. Therefore, the following hypotheses are presented:

H1: Frequent use of coping strategies will be negatively correlated with team culture.

H2: All players on esports teams will report using gender masking the least of all the coping strategies.

H3: Women will report using self-blame as a coping strategy more than men.

H4: Women will report using denial as a coping strategy more than men.

H5: Women will report using avoidance as a coping strategy more than men.

H6: Men will report seeking help as a coping strategy more than women.

Gender and Esports

Professional esports are organized by video games (Hamari et al., 2017; Holden et al., 2019). According to Esports Charts (2023), the most popular PC/console games by viewership are Riot Games' *League of Legends*, Counter-Strike, Riot Games' *Valorant*, Valve Corporation's *Defense of the Ancients 2*, Epic Games' *Fortnite*, Respawn Entertainment's *Apex Legends*, and Psyonix's *Rocket League*. However, research has shown that women who play video games tend to prefer mobile games over PC/Console games (Phan et al., 2012). One article argued that this could be due in part to the lack of interest for parents to get their young girls consoles or computers for video games due to their preconceived notions of gender (Darvin et al., 2021). When including mobile games as esports a metric for popularity amongst viewers, the game with the highest peak viewership in the last year was Moonton's *Mobile Legends: Bang Bang*, outperforming the second highest, *League of Legends*, by almost double (Esports Charts, 2023).

As many studies have been interested in looking at esports broadcasting, this phenomenon may be explained by gender.

Professional esports broadcasting is growing and with it so is its viewership. Surprisingly, many games have far more equal viewership of their esports teams by an equal number of men and women (Tang et al., 2021). Tang et al. (2021) used a survey to determine the differences between men and women's motivations to watch esports streams. They found that the reasons behind people of all genders' consumption habits were more alike than previously assumed. Men and women watched esports to shape their identity with others who watch esports and therefore fulfill sociopsychological needs. One difference they found is that men tend to watch esports for fun, while women tend to watch esports as a form of escape and by watching someone perform in a way they could not normally in real life (Tang et al., 2021). It is easy to see how this idyllic version of playing esports, particularly when it comes to women's motivations to watch broadcasts, plays into Kim and Kim's (2022) theory of the life cycle of women in competitive video game spaces. Women who are kicked from playing the game themselves may still enjoy certain parts of the video game, but don't wish to take on the burden of others judging them and their own actions in-game.

Recently, literature has turned a critical eye to the demographic makeup of collegiate esports teams, which could have to do with the perception of the identity of a "gamer." The most common major for someone participating in esports is computer science (Taylor et al., 2020). In the past, many have believed "gamer" to be synonymous with white, geeky, and male (Darvin et al., 2021; Paaben et al., 2016; Rogstad, 2022). However, the line between what makes a "gamer" and a non-gamer has been conceptualized and measured in four main ways: time investment, self-identification, design elements of games of choice, and skill (Paaben et al., 2016). Though

women are less likely to self-identify as gamers due to the hypermasculinization of the identity, the other categories such as how much time someone invested in a game, whether they enjoy competitive design elements, or their skill broadens the term “gamer” to not only include more genders, but to be inclusive of race and background as well (Darvin et al., 2021; Paaben et al., 2016; Rogstad, 2022). How inclusion plays into collegiate esports is a principal concern of this research paper.

Inclusion

In recent years, diversity, equity, and inclusion (DEI) have become a regular part of the landscape of organizations such as businesses and sports teams. Many researchers have conceptualized inclusion using two factors: belongingness and uniqueness (Jansen et al., 2014; Mor Barak, 2015; Randel et al., 2018; Shore et al., 2010). It is not enough that people feel like they are part of a group or belong there through systematic ways of including people; they must also feel like they have the freedom to express themselves and their individuality (Jansen et al., 2014; Mor Barak, 2015). While many studies focus on diversity in esports teams as a problem that needs to be solved, this study aims to ensure that when women are in these spaces that men dominate, they feel included. Therefore, the measurement for this study aims to see if women in esports spaces feel like they belong and if they can authentically express themselves as a valued member of the team (Jansen et al., 2014). Thus, the hypothesis is presented:

H7: Team culture will be positively correlated with inclusion.

H8: Frequent use of coping strategies will be negatively correlated with inclusion.

H9: Women will perceive feeling less included on their esports team than men.

Methodology

To test these hypotheses, an online survey was fielded to collegiate esports players in the U.S. Recruitment was multi-step, and included more than 200 university esports programs. After a month in the field, 92 participants were included in the final data. Their responses to questions regarding their experiences, perceptions, and behaviors on esports teams were analyzed.

Participants

Participant Characteristics

Inclusion criteria for this study were limited to those who played or recently played on a collegiate esports team in the U.S. Students who had not played on a collegiate esports team ($n = 2$) were booted from the survey and not included in the final analysis. Of the 146 participants who began the survey, 54 (37.0%) were excluded for not meeting study criteria, as they took less than 36 seconds to complete the survey (31.5%) or they did not play on a collegiate esports team (5.5%). The remaining 92 participants were included in the study, though 26 (28.3%) of the remaining participants failed to complete the survey to the end. The 66 (71.7%) participants who remained were the only participants who provided information about their gender, as well as other demographics. Of the 66 participants who answered the question, 57 (86.4%) identified as a man, 7 (10.6%) identified as a woman, and 2 (3.0%) identified as gender non-conforming. State Press reported that according to National Association of Collegiate Esports (NACE), 8.2% of collegiate esports players are women, which would indicate that this is a representative sample (Moley, 2022). There were $n = 26$ from the final pool that did not indicate their gender, frequency of video game play, education, age, nor ethnicity. Analysis of the following demographics and sociographics is based on the data of 66 participants.

Participants hailed from 16 different states, including Washington D.C.: 7 (7.6%) from the Northeast; 52 (56.5%) from the Southeast; 3 (3.7%) from the Midwest; 17 (18.5%) from the Southwest; 5 (5.4%) from the West; and 8 (8.7%) with an unavailable location. For the level of education received, the average participant indicated that they had received “Some College” education ($n = 23$).

The ages of the participants ranged from 18-30, with a mean age of 21.5 years and a mode of 20 years of age. The majority of participants were Caucasian or White, at 63.6% ($n = 42$). Other participants included 12.1% Hispanic or Latino ($n = 8$), 9.1% Asian ($n = 6$), 7.6% Black or African American ($n = 5$), 6.1% Multiracial ($n = 4$), and 1 participant abstained from answering.

Sampling Procedures

Approval from the IRB was obtained before recruiting began (See Appendix C). Participants were recruited using the snowball method from university esports clubs, associations, and official teams throughout the U.S. as appropriate by the specificity or hard-to-reach nature of the sample participants (Atkinson & Flint, 2001). Though snowball sampling is usually reserved for qualitative research, the method has been used quantitatively with subjects who can digitally forward the survey to other eligible participants (Dusek et al., 2015). Participants volunteered to take this survey and were not compensated or provided with class credit.

Top-down recruitment was conducted February 22, 2024, to March 28, 2024, through email, Discord messaging, and one in-person event. A total of 278 emails were sent to contacts at 265 different colleges and universities (See Appendix B). Schools were selected from the National Association of Collegiate Esports website, as well as found on official school websites.

All schools sent at least two follow-up emails, and 126 schools were sent three follow-up emails. A total of 10 schools responded to the email inquiry directly, with 8 explicitly confirming that they sent the survey to the esports programs at their colleges.

VESPA is a Virginia Tech student-led organization on campus that includes 13 competitive video games. A mass message was sent by the Vice President in the VESPA discord with 1,381 members, and 32 weekly visitors. This message was also sent out to four subgroups of the gaming discords, notably the VESPA Overwatch discord where it was posted twice, and the GG Club or the Gamer Girl Club at Virginia Tech, which is a club for women who play video games.

Continually, VESPA hosts one meeting per month. The researcher also attended an on-campus meeting February 23, 2024, with about 55-70 students. All students were given a slip with a QR code for the survey.

Participants self-identified themselves as players on a collegiate esports team. Those who did not identify as a collegiate esports player were prevented from going further in the survey.

Materials and procedures

Those who were recruited to the online survey were directed to a QuestionPro survey hosted on a Virginia Tech account (See Appendix A). Data was collected using a quantitative survey. No credit or awards were given for taking the survey. All participants took the survey on their personal devices with unlimited time. After consenting to the survey with the initial question, participants took the multiple-choice survey. The average time to complete this survey was 6 minutes. All data was analyzed using SPSS Version 29.

Variable construction

Coping Strategies. Fox and Tang (2016) compiled and tested 24 items from previous research in organizations to create a coping strategy scale specific to women's experiences in video games. The original scale measures the five coping strategies: gender masking (6 items), seeking help (6 items), avoidance (5 items), denial (4 items), and self-blame (3 items). This scale measures how women coped with harassment before, during, and after gameplay. Participants responded on a 5-point scale (1 = Never; 5 = Almost Always). After being asked about times when harassment occurs or occurred from another player on their esports team, some sample statements included: "Talk to someone about what happened (seeking help);" "Avoided talking to others while playing (avoidance);" "Acted like it didn't bother me (denial);" and "Felt shame about it (self-blame)." All scales were found reliable with the lowest Cronbach alpha found with the Self-Blame scale ($\alpha = .781$).

Coping strategies were made into one larger scale item, but also into individual scale items, as needed by the hypotheses. The Cronbach alpha for the Coping Strategies scale item was calculated and found reliable ($\alpha = .920$). The mean for the general Coping Strategies measurement was ($M = 2.398$; $SD = .878$).

Next, individual scales for the four measurements were calculated. Seeking Help ($\alpha = .917$; $M = 2.3983$; $SD = 1.236$), Avoidance ($\alpha = .813$; $M = 1.891$; $SD = .935$), Denial ($\alpha = .840$; $M = 2.272$; $SD = 1.054$), Self-Blame ($\alpha = .781$; $M = 1.905$; $SD = .969$) were all found reliable and turned into scale items.

This study broke up gender masking into its own set of questions due to its reliance and emphasis on a demographic of the participants, though the same 5-point scale was used (1 = Never; 5 = Almost Always). Online Gender Presentation ($\alpha = .869$; $M = 1.540$; $SD = .952$) was

found reliable and turned into an item scale for hypothesis testing. This question set began with a definition of gender masking: when your online appearance or voice is changed in some way or hide your gender expression. Sample statements included “Use gender masking to hide my gender” and “Use a gender masked username.”

Perceived Group Inclusion. Jansen et al.’s (2014) Perceived Group Inclusion Scale (PGIS) offers 16 items that Measure two factors: belonging and authenticity. Other researchers have visualized authenticity as “uniqueness.” This was be measured using a 5-point scale (1= Strongly disagree; 5= Strongly agree). This scale was chosen because of its emphasis on group dynamics. It was found to be reliable ($\alpha = .952$; $M = 4.307$; $SD = .699$) and was turned into a scale item. Its research was tested on students rather than many other inclusion skills that rely solely on testing inclusion in organizational work groups. The strength of the measurement is its emphasis on the group as the center of inclusive practices instead of the individual. This measurement is modified to say “team” instead of “group.” Some questions include “This team gives me the feeling that I belong” and “The team allows me to express my authentic self.”

Team Culture. Glaser et al. (1987) created the Organizational Culture Survey (OCS) initially as a way to test culture in a workplace setting. This is a 31-item scale that measures six factors of organizational culture: teamwork & conflict; climate & morale; information flow; involvement; supervision; and meetings. The five items that measure supervision will be taken out of this survey due to esports often being a student-led organization with little formal supervision. All other items will be modified to measure team culture such as “work with” to “compete with” or “organization” to “team.” The measurement was found to have been reliable ($\alpha = .938$; $M = 3.995$; $SD = .646$) and turned into an item scale. Examples of questions from this

scale include “People on my team are direct and honest with each other” and “I get the information I need to play on my team well.”

Perceptions of Harassment. Carr et al. (2000) developed a scale that looked to measure Experience and Perceived Effects of Harassment in the workplace. This scale was then simplified into four different items and changed to fit the needs of video game harassment. The new scale consisted of four different mirrored questions. The items were asked after (1) aggressive remarks or behavior; (2) sexist remarks or behavior; (3) unwanted sexual advances; and (4) harassment. These were first asked about their perception of how much this happens in video games generally ($\alpha = .933$; $M = 2.433$), and then how much they have personally experienced these items in video games ($\alpha = .818$; $M = 2.045$). These were then transformed into two different variables and the sum of the subtracted scales was formed into a new scale which was used for the analysis to equalize findings ($M = .388$; $SD = .828$).

Finally, participants answered demographic statistics such as gender, age, race/ethnicity, and education level. Participants were also asked baseline gaming frequency questions such as how often they played video games, and how often they played competitive video games.

Results

Participants indicated the frequency that they play video games. Every participant indicated that they played video games at least once per week, with 53% of participants indicating that they played video games every day ($n = 35$). When focusing on specifically competitive video game play, the distribution of play frequency was larger. One participant indicated to play “Once every few months,” and 28.8% of participants indicated that they played competitive video games every day ($n = 19$).

Hypothesis Testing

To test **H1: Frequent use of coping strategies will be negatively correlated with team culture**, **H7: Team culture will be positively correlated with inclusion**, and **H8: Frequent use of coping strategies will be negatively correlated with inclusion**, a correlation test between the three variables of Coping Strategies, Team Culture, and Inclusion was used, as shown on **Table 1**. Coping Strategies was hypothesized negatively correlate with Team Culture and Inclusion. There was no support for **H1**, and we failed to reject the null hypothesis. This means there was no evidence of a correlation between frequent use of Coping strategies and Team Culture. This means that it likely people who use coping strategies on their team do so unrelatedly to the team's culture. There was support for **H7**, and we reject the null hypothesis. There was evidence to suggest a correlation between Team Culture and Inclusion. The correlation between these variables is positive, indicating that people who perceived their teams to have more positive team cultures also felt included on their teams. However, there was no support for **H8**, and we failed to reject the null hypothesis. This means there was no evidence of a correlation between frequent use of Coping Strategies and Inclusion.

Table 1

Correlation Test of Team Culture, Inclusion, and Coping Strategies

		Team Culture	Inclusion	Coping Strategies
Team Culture	Pearson Correlation	1	.688**	-0.197
	Sig. (2-tailed)		0.000	0.109
	<i>N</i>	80	80	67
Inclusion	Pearson Correlation	.688**	1	-0.093
	Sig. (2-tailed)	0.000		0.454
	<i>N</i>	80	92	67

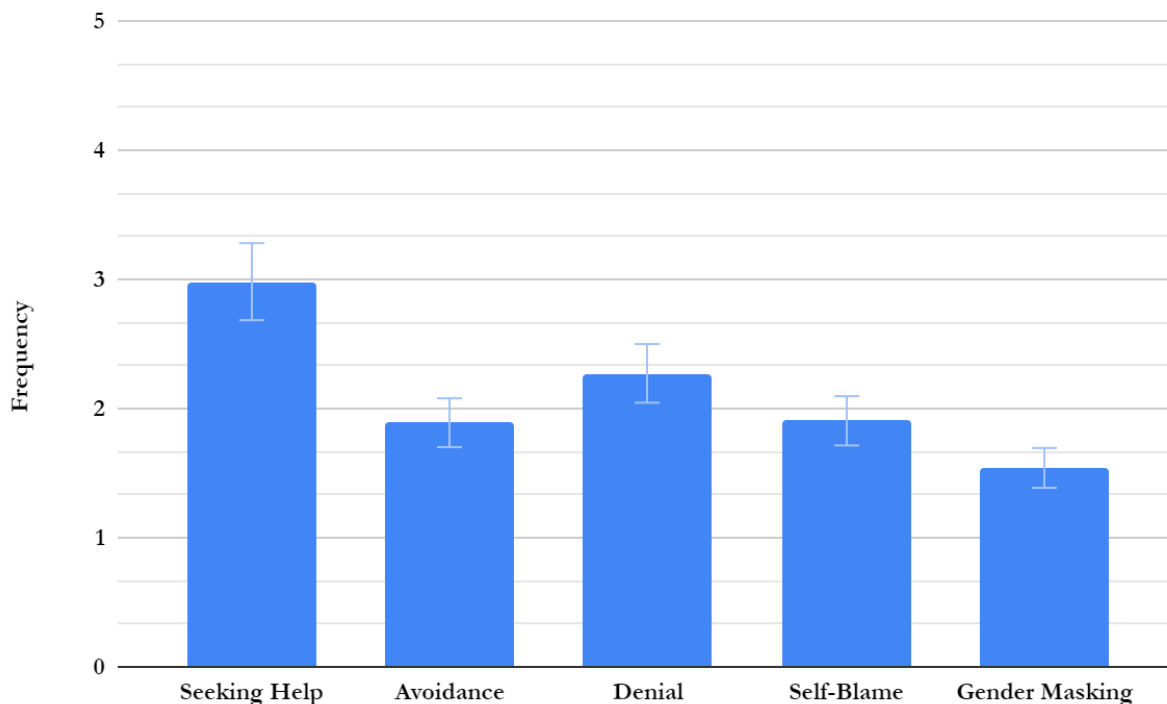
Coping Strategies	Pearson Correlation	-0.197	-0.093	1
	Sig. (2-tailed)	0.109	0.454	
	<i>N</i>	67	67	67

** . Correlation is significant at the 0.01 level (2-tailed).

In order to test **H2: All players on esports teams will report using gender masking the least of all the coping strategies**, we used one-way repeated measures ANOVA (Bayesian Estimates). This looked at the five different coping strategies that were determined for this study: seeking help, avoidance, denial, self-blame, and gender masking. Means indicate that everyone used gender making the least of the five strategies, as shown on **Figure 1**. However, results show that it is used significantly less than Seeking Help and Denial. According to the overlapping lower and upper bounds, it was determined that Avoidance and Self Blame could not be indicated as significantly less used than Gender Masking. It is important to note that while Gender Masking is used the least and Seeking Help is used the most, in general, low means indicate that coping strategies are not used very frequently by the people on esports teams. Gender Masking is likely indicated as being used the least by collegiate esports players because teams are often in repeated lobbies together and so have less options to mask their gender in the more traditional ways available to other video game players.

Figure 1

Differences of Means of Coping Strategies



Note. This figure shows coping strategies by their means with 95% confidence interval error bars. The error bars of gender masking do not overlap at all with the error bars of seeking help or denial, showing that collegiate esports players use these strategies significantly more than gender masking.

In order to test **H3: Women will report using self-blame as a coping strategy more than men**, **H4: Women will report using denial as a coping strategy more than men**, **H5: Women will report using avoidance as a coping strategy more than men**, and **H6: Men will report seeking help as a coping strategy more than women**, we used a one-way repeated measures ANOVA using a gender dummy variable that isolates men. There was no support for **H3**, and we failed to reject the null hypothesis, as shown in **Table 2**. This means that there was no evidence to suggest that self-blame is used more by any gender. There was no support for **H4**,

and we failed to reject the null hypothesis. Continually, denial as a coping strategy is not differentiated by gendered lines. Alternatively, there was some significance found that women use avoidance more commonly than men, so for **H5**, we rejected the null hypothesis. This finding is in line with other studies that find that women use this coping strategy as a way to safely remove themselves from upsetting situations. There was no support for **H6**, and we failed to reject the null hypothesis. There was not enough evidence to support that men use seeking help more than women. Continually, it's important to note that while avoidance might be used by women more frequently, none of the coping strategies based on means are used frequently at all, with the highest mean being seeking help ($M = 2.983$; $SD = 1.246$).

Table 2

1-Way Repeated ANOVA Variable Correlation

		Men	Seek Help	Avoidance	Denial	Self-Blame
Men	Pearson Correlation	1	-0.012	-.310*	-0.095	-0.012
	Sig. (2-tailed)		0.925	0.012	0.450	0.922
	<i>N</i>	65	65	65	65	65
Seek Help	Pearson Correlation	-0.012	1	.443**	.543**	.473**
	Sig. (2-tailed)	0.925		0.000	0.000	0.000
	<i>N</i>	65	67	67	67	67
Avoidance	Pearson Correlation	-.310*	.443**	1	.450**	.524**
	Sig. (2-tailed)	0.012	0.000		0.000	0.000
	<i>N</i>	65	67	67	67	67
Denial	Pearson Correlation	-0.095	.543**	.450**	1	.667**
	Sig. (2-tailed)	0.450	0.000	0.000		0.000
	<i>N</i>	65	67	67	67	67
Self-Blame	Pearson Correlation	-0.012	.473**	.524**	.667**	1
	Sig. (2-tailed)	0.922	0.000	0.000	0.000	
	<i>N</i>	65	67	67	67	67

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

In order to test **H9: Women will perceive feeling less included on their esports team than men**, we used an independent sample T-test. Men ($M = 4.407$; $SD = .551$) were significantly more likely to feel included than women ($M = 3.881$, $SD = .839$), ($t(66,62)=2.2$), $p=.028$. Therefore, for **H9** we reject the null hypothesis. This means that while inclusion is high on esports teams, men feel significantly more included on their teams than their women counterparts.

Table 3

Hypotheses Organized by Significance Found

#	Hypothesis	Significance found?	Notes
H1	Frequent use of coping strategies will be negatively correlated with team culture.	No	
H2	All players on esports teams will report using gender masking the least of all the coping strategies.	Yes	Gender masking had the lowest of the means. Players use gender masking significantly less than seeking help and denial.
H3	Women will report using self-blame as a coping strategy more than men.	No	
H4	Women will report using denial as a coping strategy more than men.	No	
H5	Women will report using avoidance as a coping strategy more than men.	Yes	
H6	Men will report seeking help as a coping strategy more than women.	No	
H7	Team culture will be positively correlated with inclusion.	Yes	
H8	Frequent use of coping strategies will be negatively correlated with inclusion.	No	

H9	Women will perceive feeling less included on their esports team than men.	Yes
Total		4

Discussion

The purpose of this study was to investigate how women influence and change culture on collegiate esports teams. Competitive video games have been studied as hostile environments for women, excluding them through means that are entirely culture and communication based, such as through toxic language and behavior. Past literature has examined collegiate esports through a narrow lens, leading to very little known about collegiate esports, especially in regards to gender. This study sought to bridge that gap by focusing on how gender intersects with participant's ideas about esports team culture, inclusion, and responses to harassment (coping strategies).

Women feel significantly less included on their esports team than men. Inclusion was measured with two different variables: belongingness and uniqueness. Therefore, women felt significantly less like they belonged on their esports teams, and that they could not be their authentic self on their esports teams. This finding has implications for collegiate team esports that potentially extend to how video game culture in general leaks into the cultures on competitive video game teams. One explanation for this finding is that women experience more harassment when they play online games. This might influence the way teammates treat each other, especially the people who are not men on their team. Another probable reason is that there are simply not that many women on esports teams, leading to a hegemony on esports teams that women are not a part of, potentially leading to alienation. Any given woman who plays esports is likely to be the only woman on the team.

When looking at the implications of women not feeling included on their team, in the short term, coaches and colleges should insure that collegiate esports teams build inclusive environments for every player, no matter if they are traditionally viewed as the stereotypical “gamer.” Esports programs may look to provide opportunities to connect women across games at their university, or host team building activities focused on fostering inclusion among teams. However, in the long-term, esports programs should be working to create women-only esports teams and leagues. Young women, as a general population, simply do not have the same access to video games that young men do, leading to skill disparities that simply have to do with exposure and experience. Chess, a comparable competitive game, is similarly male dominated. Women-only tournaments and leagues have helped to alleviate institutional gender pressures and have opened doors for so many more people to be involved with the game (Ingle, 2021). This institutional pressure was similarly alleviated when Title IX created the opportunity for women to play sports, and a boom in women’s participation in sports followed. Overall, women on collegiate do not feel included on hegemonic male dominated teams, and historically, this has been remedied is by creating women-only spaces.

Of all the coping strategies, women only used avoidance significantly more frequently than men. This means that after instances and utterances of harassment while playing on their esports teams, women prefer significantly more than men to stop playing and leave the game. This speaks to the cycle of women playing video games that pushes gamers out of the hobby due to repeated offenses that aggregate over time, which ends with many women leaving the game permanently. Women likely favor avoidance because it does not put the woman in a compromising position where she could potentially face more harassment for expressing her discomfort. Men may use avoidance significantly less than women because they may perceive

less risk, especially from people who are on a team with them. Practical implications of this finding include always making sure that women are allowed to leave games if they need to, as well as following up with women when they leave a game after being the target of harassment. This might help to avoid rumination and help women on esports teams feel as though they do not need to avoid anyone on the team after harassment. However, it is important to note that the most ideal outcome for esports teams is a zero-tolerance policy for harassment, to stop coping strategies from being utilized entirely.

When examining the gendered experience of esports players, this study found that people do not generally use gender masking on their esports teams. This is likely because gender masking is difficult when playing on a team that almost always requires voice communication, one of the main ways that people hide their gender in video games. Specifically, people use gender masking significantly less than denial or seeking help. It is assumed from previous research that women use gender masking in video games to avoid problems with being targeted for their gender during their video gaming experience. However, this might suggest that collegiate esports teams are more open and honest in their team cultures, where women may feel like they do not need to use this coping strategy often when on them. The implications of this show that people do not typically feel the need to hide themselves when they are on their esports team, at least when it comes to their gender expression and identity. This could speak to the idea that the general means for this study show that collegiate esports teams in general have positive team cultures and people, in general, feel included on their esports teams.

Many studies find that people expect toxic language and behavior when they play video games, but according to this research survey, in general, team culture ($M = 3.995$) and inclusion ($M = 4.307$) are high on collegiate esports teams, while coping strategies ($M = 2.398$) to deal

with harassment are used relatively infrequently, regardless of gender. This could lead to the conclusion that the video game experience may be different in a positive way for people who play in a team environment with other gamers. Especially when considering the finding that team culture and inclusion were significantly positively correlated. This suggests a picture of gamers who have a very different experience with playing competitive video games. Implications for these findings suggest that team environments might be a safer place for anyone to play video games. People interested in promoting video games to underserved populations might find team environments a good place to begin playing, especially if there are ways to break of the hegemony of current video game teams. This finding once again leads to the advocacy for women-only teams and leagues, because while women do not feel included on their esports teams, esports teams in general allow the dominant group to feel included. Therefore, an important way to remedy their lack of inclusion is by creating a space specifically for them.

This study contributes to the expanding context of culture within organizational communication. Organizational culture is created through communication as a social activity that is outside of organizational production (Pacanowsky & O'Donnell-Trujillo, 1982). One way the literature recommends reliving problems of inclusion is promoting a sense of common identity amongst the in-group (Dovidio, 2017). Previous research shows that the identity of "gamer" is stereotypically seen as geeky, white, and male. Therefore, based on theoretical findings, practical implications for improving inclusion among women in colligate esports should avoid using this as the basis of inclusion efforts. Instead, different, less gendered, identities should be used when trying to be inclusive, such as the name of the esports team or the university program.

This study contributes to communication research by expanding research on communication-based coping strategies. This research built on previous research regarding how

women who play video games cope with harassment in the competitive video games. This extends that research into comparing how men and women use these strategies to different extents. Of the coping strategies in collegiate competitive video games, only avoidance is used by women significantly more frequently than men. While this finding is important to note the differences amongst genders, it also speaks volumes to the similarities of video game players after utterances of harassment. This finding on coping strategies could contribute theoretically to a broader theory about esports and gender, leading to a more thorough understanding of this developing topic.

The results of this study contribute to the idea of esports teams being different than the broader video game experience. One implication of this study could show how esports could be linked more closely to traditional team sports, with generally high team culture and inclusion means. Past research indicates that people discursively link esports with more traditional sports, leading to ideas about who should be represented on esports teams. With these findings, specifically the seemingly contradictory finding that players in general felt included on their teams, but women felt significantly less included than men, provides a rich picture for the future of research in this area.

Limitations and Future Directions

Two main limitations informed this study. The first was finding participants for the survey. Collegiate esports are an understudied population and therefore there are few databases where these players can be recruited easily. Recruitment for this study was challenging; with only one major esports association available in the country, NACE, the first round of recruitment involved reaching out by email to only 88 schools. This exhausted the list of NACE esports

associations, so manual retrieval of esports emails was conducted on the rest of the schools contacted. This also required a reliance on a snowball sampling technique where representatives of teams passed along messages to esports players at their school. This study showed how difficult to reach this study population is, especially for people who are not already in the collegiate esports scene.

Another issue with the study population is the eligible participants who are women are simply not a large population. While this study provided a representative sample of esports players by gender, it is recommended that future studies on gender in collegiate esports should aim for an overrepresentation of women and weigh the final results to match national averages. Since the difference between men and women who play esports is so vast, no equal groups exist. There are not enough women in esports to do representative survey research.

This study had an unexpected flaw that could contribute to the results, as it operated on the assumption that harassment happens on collegiate esports teams. In the study design, there was no option for participants to indicate that they did not experience harassment on their esports team. Though harassment in competitive team environments could be assumed based on past research, this assumption likely caused $n = 10$ (10.9%) participants to drop from the survey without finishing. When designing a questionnaire in a future study, it is important to not assume that harassment occurs on every collegiate esports team. To remedy this, provide an option where players can indicate that harassment has not occurred on their esports team, or create a question that can bypass coping strategies if they do not perceive any harassment on their team.

The results of this survey show that women feel significantly less included than men on their esports teams. Future study should focus on how women feel excluded from teams, and why they feel excluded. The answers to these questions would provide further insights to the

ways in which colleges and programs can begin to remedy this issue. Women are also more likely to use avoidance as a coping strategy as compared to men, meaning that while every coping strategy should be addressed, avoidance should be managed with extra care with women on collegiate esports teams. Inclusion is a huge determiner of team culture and satisfaction, so making sure that studies examine the ways in which women feel excluded is crucial to the expansion of this topic.

Esports offers a specific team experience that is co-ed by default, though in reality, only 8.2% of collegiate esports players are women (Moley, 2022). With the results of this study mixed, a possible next step in research would be comparing esports players and traditional co-ed sports players on the same scale to examine how playing on a co-ed esports team is different from other co-ed team sports. This would be important to examine because where an esports program should be in a university setting (athletics, computer science department, etc.) has not been formalized or broadly adapted. Continually, esports programs should begin to trouble the idea that esports are co-ed by default and begin to invest in research toward creating women-only teams and leagues. The expansion of this topic into these two areas of research would help to paint a clearer picture of women's roles as gamers in the esports community.

Conclusion

Esports is a growing institution that has steadily been gaining popularity in the last 20 years. However, despite its popularity, large disparities in gender exist, especially when examining the collegiate level of play. The hypotheses of this study predicted correlations between variables related to team culture, inclusion, and coping strategies along gendered lines. Results indicated that all players used gender masking the least of all the coping strategies, women report using avoidance as a coping strategy more than men, team culture was positively

correlated with inclusion, and that women feel less included on their esports teams than men.

These results provided a clearer picture of the current state of gender in collegiate esports, and helped to create further suggestions for future directions.

This study found that women feel significantly less included on their esports teams than men. While esports are currently co-ed by default, the findings of this study led to the advocacy for separate collegiate esports teams by gender in order to alleviate gendered differences in access and to allow for a space where women can feel like they belong, and they can express their unique selves. In other words, women-only teams will likely allow for women to feel more included on their esports teams, since current team make-ups are largely hegemonic gender wise. Though the future of collegiate esports remains unclear, research that leads to bridging gender gaps remains important if equality and equity are ever to be reached in the gaming community.

Appendix A

Survey instrument.

Weed Out

1. [IRB Approved Consent Form] Please indicate:
 1. I consent
 2. I do NOT consent → Boot
2. Do you currently or have you in the past played on a collegiate esports team?
 1. Yes
 2. No → Boot

Inclusion

Participants were asked to mark the following statements on a 5-point scale: (1 = Strongly disagree; 5 = Strongly agree).

Think about the players who are/were immediately on your esports team or who compete/competed individually with you representing the same team. Please indicate the following:

1. This team gives me the feeling that I belong.
2. This team gives me the feeling that I am a part of the team.
3. This team gives me the feeling that I fit in.
4. This team treats me like an insider.

5. This team likes me.
6. This team appreciates me.
7. This team is pleased with me.
8. This team cares about me.

9. This team allows me to be authentic.
10. This team allows me to be who I am.
11. This team allows me to express my authentic self.
12. This team allows me to present myself the way I am.

Team Culture Survey

Participants were asked to mark the following statements on a 5-point scale: (1 = To a Very Little Extent; 5 = To a Very Great Extent).

Think about the players who are/were immediately on your esports team or who compete/competed individually with you representing the same team. Please indicate the following:

1. People on my team are direct and honest with each other.
2. People on my team accept criticism without becoming defensive.
3. People on my team function as a team.

4. People on my team constructively confront problems.
5. People on my team are good listeners.

6. This team motivates me to put out my best effort.
7. This team respects its players.
8. This team treats people in a consistent and fair manner.
9. There is an atmosphere of trust on this team.
10. When changes are made, the reasons why are made clear.
11. I get the information I need to play on my team well.

12. I have a say in decisions that affect how I play.
13. My opinions count on this team.
14. Decisions made at practice get put into action.
15. Everyone takes part in discussions at practice.
16. Time in practice is time well spent.

Coping Strategies

Participants were asked to mark the following statements on a 5-point scale: (1 = Never; 5 = Almost always).

Think about times when harassment occurs/occurred from another player ON YOUR ESPORTS TEAM. Indicate if you have ever used the following as a precautionary measure or response.

1. Talk to someone about what happened.
2. Ask other players for help.
3. Told the harasser directly it was not okay.
4. Reported the harasser.

5. Discussed with someone outside the game.
6. Discussed with someone inside the game.
7. Avoided talking to others while playing.
8. Left the game.

9. Avoided voice chat.
10. Told myself it wasn't important.
11. Acted like it didn't bother me.
12. Tried to forget it.

13. Put up with it.
14. Felt stupid about it.
15. Blamed myself.
16. Made excuses.

Perceptions of harassment

Participants were asked to mark the following statements on a 5-point scale: (1 = Never; 5 = Almost always).

Please indicate how frequently these behaviors happen in competitive video games, to your best estimation.

1. Aggressive remarks or behavior
2. Sexist remarks or behavior
3. Unwanted sexual advances
4. Harassment

Please indicate how frequently you have personally had these behaviors happen to you while playing competitive video games.

1. Aggressive remarks or behavior
2. Sexist remarks or behavior
3. Unwanted sexual advances
4. Harassment

Online Gender Presentation

Participants were asked to mark the following statements on a 5-point scale: (1 = Never; 5 = Almost always).

GENDER MASKING is when you change your online appearance or voice in some way to change or hide your gender expression. Please indicate how often you do these actions.

1. Use gender masking to hide my gender
2. Use gender masking to change my gender
3. Use a gender-neutral avatar
4. Use a gender masked user name
5. Use a gender-neutral user name

Gender

What is your gender?

1. Man
2. Woman
3. Gender non-conforming
4. Other

Gaming Habits

How often do you play video games?

- Never
- A few times a year
- Once every few months
- Once a month
- Once every two weeks
- 1-3 days per week
- 4-6 days per week
- Every day

How often do you play **competitive** video games?

- Never
- A few times a year
- Once every few months
- Once a month
- Once every two weeks
- 1-3 days per week
- 4-6 days per week
- Every day

If you had to pick one, what is your competitive game genre of choice?

- Real-time strategy (RTS) games
- Shooters (FPS and TPS) games
- Multiplayer Online Battle Arena (MOBA) games
- Simulation and sports games
- Other

Demographic questions

What is your age?

1. 18+ Typed answer

What is your ethnicity?

1. White
2. African-American
3. Latino or Hispanic
4. Asian
5. Native American
6. Native Hawaiian or Pacific Islander
7. Other/Unknown
8. Prefer not to say

What level of education have you received?

1. High School
2. Some College
3. Associate's Degree
4. Bachelor's Degree
5. Some Master's Degree
6. Master's Degree
7. Some Doctoral Degree
8. Doctoral Degree
9. Prefer not to say

Appendix B

List of contacted schools and emails.

School	Email
Adrian College	ehill@adrian.edu
Alabama at Birmingham	bamaesports@gmail.com
Albright College	jmatto@albright.edu
Anna Maria College	zgandara@annamaria.edu
Aquinas College	wcw001@aquinas.edu
Arizona State	easports.asu@gmail.com
Ashland University	amuelle3@ashland.edu
Ashland University	au-esports@ashland.edu
Atlantic University College	esports@atlanticu.edu
Auburn University	jem0138@auburn.edu
Austin Peay State University	e-sports@apsu.edu
Baker College	bsobcz02@baker.edu
Baldwin Wallace University	jgrasso@bw.edu
Barry University	LHotchkiss@barry.edu
Barton College	pachristianson@barton.edu
Baylor University	Joshua_Linnett1@baylor.edu
Bellarmino University	mgreenwell@bellarmine.edu
Bellevue University	dacastillo@bellevue.edu
Bethany Lutheran College	esports@blc.edu
Bethany Lutheran College	lfricke@blc.edu
Binghamton University	vga@binghamtonsa.org
Blinn College	aaron.kapiko@blinn.edu
Boise State University	chrishaskell@boisestate.edu
Bowie State University	matyler@bowiestate.edu
Brigham Young	info@utahesports.net
Broward College	ladamo@broward.edu
Butler University	nbduke@butler.edu
California State University, Fullerton	csfullertonesports@gmail.com
California State University, Long Beach	Contacted through website

California State University, Northridge	csunesportsclub@gmail.com
California State University, Sacramento	Seantirado@csus.edu
Carleton College	carletontespa@gmail.com
Carolina University	gentryj_1@carolinau.edu
Central Michigan University	theis1ln@cmich.edu
Charleston Southern University	esports@csuniv.edu
Clemson University	esports@clemson.edu
College of Charleston	cofcesportsorg@gmail.com
College of William and Mary	esports@wm.edu
Colorado College	jlauer2023@coloradocollege.edu
Columbia College	columbia.esports@gmail.com
	ColumbiaEsports@columbiasc.edu
Concordia College	jehlik@cord.edu
Cornell University	esportslounge@cornell.edu
Creighton University	recwell@creighton.edu
Davenport University	noah.antor@davenport.edu
DePaul University	esports@depaul.edu
Drexel University	oj48@drexel.edu
Drexel University	drexelesports@gmail.com
Duke University	dukeugaming@gmail.com
Duquesne University	janyapanichp@duq.edu
East Carolina University	richardsonjo19@ecu.edu
East Tennessee State University	esports@etsu.edu
Eastern Kentucky University	ginger.gordon@eku.edu
Eastern Michigan University	zlewis7@emich.edu
Elon University	wthomas7@elon.edu
Ferris State University	esports@ferris.edu
Fisher College	bhummel@fisher.edu
Florida Atlantic University	faugamingcenter@fau.edu
Florida Gulf Coast University	fgcu.esportsclub@gmail.com
Florida Institute of Technology	esports@fit.edu
Florida International University	pcornejo@fiu.edu
Florida State	eSports@fscj.edu

Fordham University	nlarca@fordham.edu
Full Sail University	skitelyn@fullsail.com
George Mason University	llong3@gmu.edu
George Washington University	esports@gwu.edu
Georgia Institute of Technology	georgiatechesports@gmail.com
Georgia Southern University	jb17394@georgiasouthern.edu
Georgia State University	esports@gsu.edu
Grand Valley State University	Longri@gvsu.edu
Grand View University	gvesports@grandview.edu
Harrisburg University	mnavarro@harrisburgu.edu
High Point University	hpuesports@gmail.com
Hobart College	engagement@hws.edu
Hofstra University	hofstraesports@gmail.com
Idaho State University	anastaisachristen@isu.edu
Illinois State University	esports@IllinoisState.edu
Illinois Wesleyan University	kkennedy@iwu.edu
Indiana Institute of Technology	jdmiddleton@indianatech.edu
Indiana University Bloomington	Gaming@indiana.edu
Indiana Wesleyan University	deane.webb@indwes.edu
Iona University	ascaccia@iona.edu
Iowa State	ndpick@iastate.edu
Jacksonville State University	jmchumley@jsu.edu
Jacksonville University	dfurnas@ju.edu
	lvansco@jacksonville.edu
James Madison University	torre2ml@jmu.edu
Kansas State University	Bcounts@ksu.edu
Kansas Wesleyan University	Esports@kwu.edu
Keene State College	noah.drouin@keene.edu
Kennesaw State University	esports@kennesaw.edu
La Salle University	mcintosh@lasalle.edu
Lander University	bhoward@lander.edu
Longwood University	longwood.esports@gmail.com
Louisiana State University Shreveport	matthew.parks@lsus.edu

Loyola University Chicago	esports@loyola.edu
Manchester University	esports@manchester.edu
Maryville University	esports@maryville.edu
McGill University	games@cs.mcgill.ca
McMurry University	esports@mcm.edu
Miami University	esports@miamioh.edu
Michigan State University	bilskich@msu.edu
Michigan Technological University	esports@mtu.edu
Midland University	mcintire@midlandu.edu
Minnesota State University, Mankato	esports@mnsu.edu
Minnesota, Twin Cities	gopheresports@umn.edu
Missouri State University	Roman190@live.missouristate.edu
Missouri State University	terryweber@missouristate.edu
Monmouth University	abellina@monmouth.edu
Montana State University	bigskysunesports@gmail.com
New Jersey Institute of Technology	njitesports@gmail.com
New York University	tandon-pgn@nyu.edu
North Dakota State University	joseph.cleys@ndsu.ed
Northeastern University	m.vanderheyden@northeastern.edu
Northeastern University	peabody.t@northeastern.edu
Northern Arizona University	esports@nau.edu
Northern Kentucky University	harriss6@nku.edu
Northwestern University	esports@u.northwestern.edu
Northwood University	jacobj@northwood.edu
Norwich University	esports@norwich.edu
Nova Southeastern University	studente@nova.edu
Oakland University	carlleone@oakland.edu
Ohio State University	esports@osu.edu
Oklahoma Christian University	lucas.hayworth@oc.edu
Oklahoma State	osuesports@okstate.edu
Old Dominion University	gdeppen@odu.edu
Oregon State	wegrichj@oregonstate.edu
Pennsylvania State	jaw57@psu.edu

University of Pittsburg	upgesports@pitt.edu
Pittsburg State University	gcozart@pittstate.edu
Portland State University	psugames@pdx.edu
Presbyterian College	esports@presby.edu
Providence College	esports@providence.edu
Purdue University	imsports@purdue.edu
Purdue University Fort Wayne	esports@pfw.edu
Radford University	dmbenedict@radford.edu
Rice University	riceowlsesports@gmail.com
Robert Morris University	bakaj@rmu.edu
Rochester Institute of Technology	Cewics@rit.edu
Rockford University Regents Esports	telliott@rockford.edu
Roosevelt University	mbuerckholtz@roosevelt.edu
Rowan University	zbyszynski@rowan.edu
Rutgers University	ruesportscenter@gmail.com
Saint Joseph's University	janethowes@usj.edu
Saint Louis University	nicholas.chiu@slu.edu
Seton Hall University	victor.gomez@shu.edu
Seton Hall University	victor.gomez@shu.edu
Shenandoah University	alyssa.duran@su.edu
Shawnee State	tlynn@shawnee.edu
South Florida	rec-esports@usf.edu
Southeastern Illinois College	jason.fitzgerald@sic.edu
Southern Arkansas University	sandramartin@saumag.edu
Southern Methodist	smupro@smu.edu
Southwest Baptist University	tdugger@sbuniv.edu
Southwest Minnesota State University	Spencer.Louwagie@smsu.edu
St. John's University	browneb@stjohns.edu
Stanford University	jriley20@stanford.edu
Stephen's College	atinker@stephens.edu
Stony Brook University	esports@stonybrook.edu
Syracuse University	esports@syr.edu
Talladega College	degaesports12@talladega.edu

Temple University	tuesportsclub@gmail.com
Texas A&M International University	ivan.cano@tamiu.edu
Texas A&M San Antonio	esports@tamusa.edu
Texas A&M University	alexdelape@tamu.edu
Texas Christian University	evan.pallanes@tcu.edu
Texas Tech University	TexasTech.Esports.Association@gmail.com
The University of Tulsa	esports.club@utulsa.edu
Tiffin University	ybarrabj@tiffin.edu
Towson University	towsonesports@gmail.com
Tulane University	greenwaveesports@gmail.com
University at Buffalo	eupp@buffalo.edu
University of Akron	ntm2@uakron.edu
University of Alaska Fairbanks	dwrichards2@alaska.edu
University of Albany	esports@albany.edu
University of Arizona	EsportsArena@email.arizona.edu
University of Arkansas at Monticello	burtond@uamont.edu
University of California, Berkeley	calesports@berkeley.edu
University of California, Davis	esportsatucd@gmail.com
University of California, Irvine	esports@uci.edu
University of California, Los Angeles	esports@ucla.edu
University of California, Riverside	hlg.ucr@gmail.com
University of California, San Diego	jmchambers@ucsd.edu
University of California, Santa Barbara	gescobedo@ucsb.edu
University of Central Arkansas	Esports@uark.edu
University of Central Florida	esportsatucf@gmail.com
University of Central Oklahoma	esports@uco.edu
University of Cincinnati	esports@ucmail.uc.edu
	bradley.walsh@uc.edu
University of Colorado-Boulder	gaming@colorado.edu
University of Dayton	alopezmatthews1@udayton.edu
University of Delaware	esports@udel.edu
University of Hawai'i at Manoa	kevmn@hawaii.edu
University of Houston	esports@uhd.edu

University of Idaho	christen@uidaho.edu
University of Idaho	esports@uidaho.edu
University of Illinois Urbana-Champaign	intramurals@illinois.edu
University of Iowa	eherrmann@uiowa.edu
University of Kansas	djoconnell@ku.edu
University of Kansas	djoconnell@ku.edu
University of Kentucky	ukyesports@gmail.com
University of Louisville	cardesportsclub@gmail.com
University of Maine	jack.sjoberg@maine.edu
University of Mary Washington	mink2@umw.edu
University of Maryland College Park	esports@umd.edu
University of Maryland, Baltimore County	kristen2@umbc.edu
University of Massachusetts Amherst	esports@umass.edu
University of Memphis	esportsuofm@gmail.com
University of Miami	esports@miami.edu
University of Michigan	umesports@umich.edu
University of Michigan, Flint	gooding@umich.edu
University of Mississippi	esports@olemiss.edu
University of Missouri	cgraham@missouri.edu
University of Missouri	esports@missouri.edu
University of Montana	michael.cassens@mso.umt.edu
University of Nebraska-Lincoln	imsports@unl.edu
University of New Hampshire	unhesports@gmail.com
University of North Alabama	esports@una.edu
University of North Carolina	ryamc5@ad.unc.edu
University of North Carolina at Asheville	esports.rec@unca.edu
University of North Carolina Greensboro	z_ephlin@uncg.edu
University of North Carolina, Charlotte	info@carolinaesports.gg
University of North Carolina, Wilmington	pastorer@uncw.edu
University of North Dakota	yan.kraus.1@ndus.edu
University of North Florida	unfesports@gmail.com
University of North Texas	ChristianLjungdahl@my.unt.edu
University of Northern Colorado	russ1981@bears.unco.edu

University of Notre Dame	ywhang@katz.pitt.edu
University of Oklahoma	esports@ou.edu
University of Oregon	uoesports@uoregon.edu
University of Pikeville	nicholasalverson@upike.edu
University of Rhode Island	rogersmd@uri.edu
University of South Carolina	soesport@mailbox.sc.edu
University of South Carolina Upstate	jcunningham@uscupstate.edu
University of South Florida	andrewross1@usf.edu
University of Southern California	uscesports@usc.edu
University of St. Thomas	stthomasesports@gmail.com
University of Texas at Austin	longhorngaming@utexas.edu
University of Texas at Dallas	esports@utdallas.edu
University of Texas at San Antonio	roadrunnergaming.sa@gmail.com
University of Utah	UUESports@eae.utah.edu
University of Vermont	lericso@uvm.edu
University of Virginia	exec_gaming@virginia.edu
	dota2clublist@virginia.edu
	gaming@virginia.edu
	gaming_club_at_uva@virginia.edu
	rhythm-games@virginia.edu
	smashatuva@virginia.edu
	uvalol@virginia.edu
	valorant_at_uva@virginia.edu
	vespa@virginia.edu
University of Washington	hubgames@uw.edu
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University of Wyoming	wyomingesports@gmail.com
Utah State	esports@usu.edu
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	michael.hay@villanova.edu

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	ethan.r.anderson@wsu.edu
Wayne State University	doso@wayne.edu
Waynesburg University	esports@waynesburg.edu
Weber State University	tyleroelling@weber.edu
West Texas A&M University	esports@wtamu.edu
West Virginia University	esports@mail.wvu.edu
Western Illinois University	labs@wiu.edu
Western Kentucky University	wkuesports@wku.edu<
Wichita State University	travis.yang@wichita.edu
Winthrop University	sidesj@winthrop.edu
Wright State University	litten.4@wright.edu
York University	esports@my.yorku

Appendix B. Table showing every school and email contacted. Blank sections on the “school”

side of the table indicate that all emails correspond to the above school in that section.

Appendix C

Letter of Approval from IRB.



**Division of Scholarly Integrity and
Research Compliance**
Institutional Review Board
North End Center, Suite 4120 (MC 0497)
300 Turner Street NW
Blacksburg, Virginia 24061
540/231-3732
irb@vt.edu
<http://www.research.vt.edu/sirc/hrpp>

MEMORANDUM

DATE: February 9, 2024
TO: Megan Ann Duncan, Taylor Catherine Lane
FROM: Virginia Tech Institutional Review Board (FWA00000572)
PROTOCOL TITLE: Team Experience in Collegiate Esports
IRB NUMBER: 24-055

Effective February 9, 2024, the Virginia Tech Human Research Protection Program (HRPP) determined that this protocol meets the criteria for exemption from IRB review under 45 CFR 46.104 (d) category(ies) 2(i).

Ongoing IRB review and approval by this organization is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities impact the exempt determination, please submit an amendment to the HRPP for a determination.

This exempt determination does not apply to any collaborating institution(s). The Virginia Tech HRPP and IRB cannot provide an exemption that overrides the jurisdiction of a local IRB or other institutional mechanism for determining exemptions.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

<https://secure.research.vt.edu/external/irb/responsibilities.htm>

(Please review responsibilities before beginning your research.)

PROTOCOL INFORMATION:

Determined As: **Exempt, under 45 CFR 46.104(d) category(ies) 2(i)**
Protocol Determination Date: **February 9, 2024**

ASSOCIATED FUNDING:

The table on the following page indicates whether grant proposals are related to this protocol, and which of the listed proposals, if any, have been compared to this protocol, if required.

Invent the Future

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References

- About NAC Esports*. NAC Esports. (2023, August 14). <https://nacesports.org/about/>
- Adachi, P. J. C., & Willoughby, T. (2011). The effect of video game competition and violence on aggressive behavior: Which characteristic has the greatest influence? *Psychology of Violence*. <https://doi.org/10.1037/a0024908>
- Atkinson, R., & Flint, J. (2001). Sampling, Snowball: Accessing hidden and hard-to-reach populations. *The A-Z of Social Research*, (33). <https://doi.org/10.4135/9780857020024.n94>
- Barney, J., & Pennington, N. (2023). An exploration of esports fan identity, Engagement Practices, and motives. *Telematics and Informatics Reports*, 11, 100081. <https://doi.org/10.1016/j.teler.2023.100081>
- Bencomo, B. (2023, March 8). Biggest women's esports tournaments of 2023. *Nerd Street*. <https://nerdstreet.com/news/2023/3/major-esports-womens-tournaments-2023>.
- Blackburn, J., & Kwak, H. (2014). STFU NOOB! predicting crowdsourced decisions on toxic behavior in online games. *Proceedings of the 23rd International Conference on World Wide Web*, 877–888.
- Carr, P. L., Ash, A. S., Friedman, R. H., Szalacha, L., Barnett, R. C., Palepu, A., & Moskowitz, M. M. (2000). Faculty perceptions of gender discrimination and sexual harassment in academic medicine. *Annals of Internal Medicine*, 132(11), 889. <https://doi.org/10.7326/0003-4819-132-11-200006060-00007>
- Castillo, E. (2023, March 16). *A Federal Judge Rules Esports Don't Count as Athletics Under Title IX. Here's Why That Matters*. BestColleges.com. <https://www.bestcolleges.com/news/federal-judge-ruled-esports-arent-a-title-ix-sport/>

- Christou, G. (2014). The interplay between immersion and appeal in Video Games. *Computers in Human Behavior*, 32, 92–100. <https://doi.org/10.1016/j.chb.2013.11.018>
- Clement, J. (2023a, August 9). *U.S. video gamers by gender 2023*. Statista. <https://www.statista.com/forecasts/494867/distribution-of-gamers-by-gender-usa#:~:text=As%20of%20March%202023%2C%2049,video%20gaming%20audiences%20were%20male.>
- Cote, A. C., Wilson, A., Hansen, J., Harris, B. C., Rahman, M. W., Can, O., Fickle, T., & Foxman, M. (2023). Taking care of toxicity: Challenges and strategies for inclusion in U.S. collegiate esports programs. *Journal of Electronic Gaming and Esports*, 1(1). <https://doi.org/10.1123/jege.2022-0031>
- Coulson, M., Barnett, J., Ferguson, C. J., & Gould, R. L. (2012). Real feelings for virtual people: Emotional attachments and interpersonal attraction in video games. *Psychology of Popular Media Culture*, 1(3), 176–184. <https://doi.org/10.1037/a0028192>
- Cullen, A. L. L. (2018) “I play to win!”: Geguri as a (post)feminist icon in esports, *Feminist Media Studies*, 18:5, 948-952, DOI: 10.1080/14680777.2018.1498112
- Darvin, L., Holden, J., Wells, J. & Baker, T. (2021). Breaking the glass monitor: examining the underrepresentation of women in esports environments, *Sport Management Review*, 24:3, 475-499, DOI: 10.1080/14413523.2021.1891746
- Dictionary.com. (2023). *Emote definition & usage examples*. Dictionary.com. <https://www.dictionary.com/browse/emotes>
- Dovidio, J. F., Abad-Merino, S., & Taberero, C. (2017). General concepts about inclusion in organizations: A psychological approach to understanding diversity and inclusion in

organizations. *Shaping Inclusive Workplaces Through Social Dialogue*, 23–31.

https://doi.org/10.1007/978-3-319-66393-7_2

Ducheneaut, N. and Moore, R.J. (2005), "More than just 'XP': learning social skills in massively multiplayer online games", *Interactive Technology and Smart Education*, Vol. 2 No. 2, pp. 89-100. <https://doi-org.ezproxy.lib.vt.edu/10.1108/17415650580000035>

Dusek, G. A., Yurova, Y. V., & Ruppel, C. P. (2015). Using Social Media and Targeted Snowball Sampling to Survey a Hard-to-reach Population: A Case Study. *International Journal of Doctoral Studies*, (10), 279–299.

<https://doi.org/http://ijds.org/Volume10/IJDSv10p279-299Dusek0717.pdf>

Ellison, M. (2023, October 16). *History from Kinnick! Iowa's sets women's basketball attendance record at 55,646*. NCAA.com. <https://www.ncaa.com/news/basketball-women/article/2023-10-12/history-kinnick-iowas-sets-womens-basketball-attendance-record-55646>

Esports degree. University of North Dakota. (2023). <https://und.edu/programs/esports-bs/index.html>

Fox, J., & Potocki, B. (2015). Lifetime video game consumption, interpersonal aggression, hostile sexism, and rape myth acceptance. *Journal of Interpersonal Violence*, 31(10), 1912–1931. <https://doi.org/10.1177/0886260515570747>

Fox, J., & Tang, W. Y. (2016). Women's experiences with general and sexual harassment in online video games: Rumination, organizational responsiveness, withdrawal, and coping strategies. *New Media & Society*, 19(8), 1290–1307.

<https://doi.org/10.1177/1461444816635778>

- Fox, J., Gilbert, M., & Tang, W. Y. (2018). Player experiences in a massively multiplayer online game: A diary study of performance, Motivation, and social interaction. *New Media & Society*, 20(11), 4056–4073. <https://doi.org/10.1177/1461444818767102>
- G2A.COM. (2023, March 27). Women in esports: Overcoming the gender gap. *G2A News*. <https://www.g2a.com/news/features/women-in-esports-overcoming-the-gender-gap/#:~:text=Surprising%3F,95%25%20belongs%20exclusively%20to%20men>
- Glaser, S. R., Zamanou, S., & Hacker, K. (1987). Measuring and interpreting organizational culture. *Management Communication Quarterly*, 1(2), 173–198. <https://doi.org/10.1177/0893318987001002003>
- Global Esports Economy Will top \$1 billion for the first time in 2019. *Newzoo*. (2019). <https://newzoo.com/resources/blog/newzoo-global-esports-economy-will-top-1-billion-for-the-first-time-in-2019>
- Gough, C. (2023, October 16). *Global eSports audience size by Viewer Type 2025*. Statista. <https://www.statista.com/statistics/490480/global-esports-audience-size-viewer-type/>
- Gutierrez, G. (2023, October 23). *Different types of esports*. Maryville University Online. <https://online.maryville.edu/blog/different-types-of-esports/>
- Halbrook, Y. J., O'Donnell, A. T., & Msetfi, R. M. (2019). When and how video games can be good: A review of the positive effects of video games on well-being. *Perspectives on Psychological Science*, 14(6), 1096–1104. <https://doi.org/10.1177/1745691619863807>
- Hamari, J., & Sjöblom, M. (2017). What is esports and why do people watch it? *Internet Research*, 27(2), 211–232. <https://doi.org/10.1108/intr-04-2016-0085>

Hawk, C. E., & Ridge, R. D. (2021). Is it only the violence? The effects of violent video game content, difficulty, and competition on aggressive behavior. *Journal of Media Psychology: Theories, Methods, and Applications*, 33(3), 134–144.

<https://doi.org/10.1027/1864-1105/a000291>

Holz Ivory, A., Fox, J., Franklin Waddell, T., & Ivory, J. D. (2014). Sex role stereotyping is hard to kill: A field experiment measuring social responses to user characteristics and behavior in an online multiplayer first-person shooter game. *Computers in Human Behavior*, 35, 148–156. <https://doi.org/10.1016/j.chb.2014.02.026>

Holz Ivory, A., Ivory, J. D., Wu, W., Limperos, A. M., Andrew, N., & Sesler, B. S. (2017).

Harsh words and deeds: systematic content analyses of offensive* user behavior in the virtual environments of online first-person shooter games. *Journal For Virtual Worlds Research*, 10(2). <https://doi.org/10.4101/jvwr.v10i2.7274>

Ingle, S. (2021, November 29). “it is not biology”: Women’s chess hindered by low numbers and sexism / Sean Ingle. The Guardian.

<https://www.theguardian.com/sport/2021/nov/29/womens-chess-sexism-misogyny>

Jansen, W. S., Otten, S. van der Zee, K. I. and Jans, L. (2014), Inclusion: Conceptualization and measurement, *European Journal of Social Psychology*, 44, pages 370–385. DOI:

10.1002/ejsp.2011

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([https://law.justia.com/cases/federal/district-](https://law.justia.com/cases/federal/district-courts/florida/flmdce/6:2022cv01950/407043/61/)

[courts/florida/flmdce/6:2022cv01950/407043/61/](https://law.justia.com/cases/federal/district-courts/florida/flmdce/6:2022cv01950/407043/61/) February 17, 2023).

Kim, S. J., & Kim, Y. S. (2022). Gender Inequality in eSport Participation: Exploring the Social Process of Women eSport Consumers. *Journal of Sport Behavior*, 45(4), 79+.

<https://link-gale->

[com.ezproxy.lib.vt.edu/apps/doc/A743647618/PROF?u=viva_vpi&sid=bookmark-](https://link-gale-com.ezproxy.lib.vt.edu/apps/doc/A743647618/PROF?u=viva_vpi&sid=bookmark-)

[PROF&xid=5bc3662e](https://link-gale-com.ezproxy.lib.vt.edu/apps/doc/A743647618/PROF?u=viva_vpi&sid=bookmark-PROF&xid=5bc3662e)

Kokkinakis, A., York, P., Patra, M. S., Robertson, J., Kirman, B., Coates, A., Chitayat, A. P., Demediuk, S., Drachen, A., Hook, J., Nolle, I., Olarewaju, O., Slawson, D., Ursu, M., Block., M. F. (2021). Metagaming and metagames in Esports. *International Journal of Esports*. ISSN 2634-1069

Kou, Y. (2020). Toxic behaviors in team based competitive gaming: The case of League of Legends. *Proceedings of the Annual Symposium on Computer Human Interaction in Play*, 81–92.

Kwak, H., Blackburn, J. and Han, S. (2015), “Exploring cyberbullying and other toxic behavior in team competition online games”, in *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*, pp. 3739-3748.

Lim, J. S., Choe, M.-J., Zhang, J., & Noh, G.-Y. (2020). The role of wishful identification, emotional engagement, and parasocial relationships in repeated viewing of live-streaming games: A Social Cognitive Theory Perspective. *Computers in Human Behavior*, 108, 106327. <https://doi.org/10.1016/j.chb.2020.106327>

Märtens, M., Shen, S., Iosup, A., & Kuipers, F. (2015). Toxicity detection in multiplayer online games. *2015 International Workshop on Network and Systems Support for Games (NetGames)*, pp. 1-6, doi: 10.1109/NetGames.2015.7382991

- McGuire, C. (2023, March 22). *A look at trends for women in college sports*. NCAA.org.
<https://www.ncaa.org/news/2023/3/1/media-center-a-look-at-trends-for-women-in-college-sports.aspx>
- McLean, D., Waddell, F., & Ivory, J. (2020). Toxic teammates or obscene opponents? influences of cooperation and competition on hostility between teammates and opponents in an online game. *Journal For Virtual Worlds Research*, 13(1).
<https://doi.org/10.4101/jywr.v13i1.7334>
- McMahan, A. (2004). Immersion, Engagement, and Presence: A Method for Analyzing 3-D Video Games. In *The Video Game Theory Reader (1st ed., pp. 67–86)*. essay, Routledge.
- Mohan, S., Guha, A., Harris, M., Popowich, F., Schuster, A., & Priebe, C. (2017). The impact of toxic language on the health of Reddit communities. *Advances in Artificial Intelligence*, 51–56. https://doi.org/10.1007/978-3-319-57351-9_6
- Moley, R. (2022, November 30). *Women Underrepresented In Collegiate Esports* . The State Press. <https://www.statepress.com/article/2022/12/women-underrepresented-in-collegiate-esports>
- Monge, C. K., & O'Brien, T. C. (2021). Effects of individual toxic behavior on team performance in *league of legends*. *Media Psychology*, 25(1), 82–105.
<https://doi.org/10.1080/15213269.2020.1868322>
- Mor Barak, M. E. (2015). Inclusion is the key to diversity management, but what is inclusion? *Human Service Organizations Management, Leadership & Governance*, 39(2), 83–88.
<https://doi.org/10.1080/23303131.2015.1035599>
- Office for Civil Rights. (2021, August 20). *Title IX and sex discrimination*. US Department of Education (ED). https://www2.ed.gov/about/offices/list/ocr/docs/tix_dis.html

- Paaßen, B., Morgenroth, T., & Stratemeyer, M. (2016). What is a true gamer? the male gamer stereotype and the marginalization of women in video game culture. *Sex Roles, 76*(7–8), 421–435. <https://doi.org/10.1007/s11199-016-0678-y>
- Pacanowsky, M. E., & O'Donnell-Trujillo, N. (1982). Communication and organizational cultures. *Western Journal of Speech Communication, 46*(2), 115–130.
<https://doi.org/10.1080/10570318209374072>
- Peña, J., & Hancock, J. T. (2006). An analysis of socioemotional and task communication in online multiplayer video games. *Communication Research, 33*(1), 92–109.
<https://doi.org/10.1177/0093650205283103>
- Phan, M. H., Jardina, J. R., Hoyle, S., & Chaparro, B. S. (2012). Examining the Role of Gender in Video Game Usage, Preference, and Behavior. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting, 56*(1), 1496-1500. <https://doi-org.ezproxy.lib.vt.edu/10.1177/1071181312561297>
- Popular esports games in 2023 by viewership*. Esports Charts. (2023). <https://escharts.com/top-games?order=peak>
- Randel, A. E., Galvin, B. M., Shore, L. M., Ehrhart, K. H., Chung, B. G., Dean, M. A., & Kedharnath, U. (2018). Inclusive leadership: Realizing positive outcomes through belongingness and being valued for uniqueness. *Human Resource Management Review, 28*(2), 190–203. <https://doi.org/10.1016/j.hrmr.2017.07.002>
- Rogstad, E. T. (2022). Gender in eSports research: a literature review, *European Journal for Sport and Society, 19*:3, 195-213, DOI: 10.1080/16138171.2021.1930941
- Schaepferkoetter, C. C., Mays, J., Hyland, S. T., Wilkerson, Z., Oja, B., Krueger, K., Christian, R., & Bass, J. R. (2017). The “new” student-athlete: An exploratory examination of

scholarship esports players. *Journal of Intercollegiate Sport*, 10(1), 1–21.

<https://doi.org/10.1123/jis.2016-0011>

Shore, L. M., Randel, A. E., Chung, B. G., Dean, M. A., Holcombe Ehrhart, K., & Singh, G.

(2010). Inclusion and diversity in work groups: A Review and model for future research.

Journal of Management, 37(4), 1262–1289. <https://doi.org/10.1177/0149206310385943>

Studholme, B. (2023, April 26). *How do esports players make money - and how much?*. Esports

Insider. [https://esportsinsider.com/2023/04/how-do-esports-players-make-](https://esportsinsider.com/2023/04/how-do-esports-players-make-money#:~:text=Hal%20Biagas%2C%20former%20Executive%20Director,refers%20to%20the%20mean%20average.)

[money#:~:text=Hal%20Biagas%2C%20former%20Executive%20Director,refers%20to%20the%20mean%20average.](https://esportsinsider.com/2023/04/how-do-esports-players-make-money#:~:text=Hal%20Biagas%2C%20former%20Executive%20Director,refers%20to%20the%20mean%20average.)

Tang, T., Cooper, R. & Kucek, J. (2021). Gendered Esports: Predicting Why Men and Women

Play and Watch Esports Games, *Journal of Broadcasting & Electronic Media*, 65:3, 336-

356, DOI: 10.1080/08838151.2021.1958815

Taylor, N. & Stout, B. (2020). Gender and the two-tiered system of collegiate esports, *Critical*

Studies in Media Communication, 37:5, 451-465, DOI: 10.1080/15295036.2020.1813901

Valkenburg, P. M., Peter, J., & Walther, J. B. (2016). Media effects: Theory and research.

Annual Review of Psychology, 67(1), 315–338. <https://doi.org/10.1146/annurev-psych-122414-033608>

Waddell, T. F., & Ivory, J. D. (2015). It's not easy trying to be one of the guys: The effect of

avatar attractiveness, avatar sex, and user sex on the success of help-seeking requests in an online game. *Journal of Broadcasting & Electronic Media*, 59(1), 112–129.

<https://doi.org/10.1080/08838151.2014.998221>

- Wadley, G., Carter, M., & Gibbs, M. (2015). Voice in virtual worlds: The design, use, and influence of Voice Chat in online play. *Human–Computer Interaction*, 30(3–4), 336–365. <https://doi.org/10.1080/07370024.2014.987346>
- Watanabe, N. M., Xue, H., Newman, J. I., & Yan, G. (2022). The Attention Economy and Esports: An Econometric Analysis of Twitch viewership. *Journal of Sport Management*, 36(2), 145–158. <https://doi.org/10.1123/jsm.2020-0383>
- Welcome to the UMBC Chess Program. UMBC. (2023). <https://chess.umbc.edu/>
- Xiao, M. (2020). Factors influencing esports viewership: An approach based on the theory of reasoned action. *Communication & Sport*, 8(1), 92–122. <https://doi.org/10.1177/2167479518819482>
- Yahoo! (2023, March 20). *Global Esports Market Report 2023-2030: A \$1.39 billion market in 2022 - focus on games, events, teams and players, channels, sponsorship and investment, and end-users*. Yahoo! Finance. <https://finance.yahoo.com/news/global-esports-market-report-2023-140800513.html?guccounter=1>
- Yu, B., Brison, N. T., & Bennett, G. (2022). Why do women watch esports? A social role perspective on spectating motives and points of Attachment. *Computers in Human Behavior*, 127, 107055. <https://doi.org/10.1016/j.chb.2021.107055>
- Zsila, Á., Shabahang, R., Aruguete, M. S., & Orosz, G. (2022). Toxic behaviors in online multiplayer games: prevalence, perception, risk factors of victimization, and psychological consequences. *Aggressive Behavior*, 48(3), 356–364. <https://doi.org/10.1002/ab.22023>