THE DEVELOPMENT OF INTERCULTURAL COMPETENCE

THROUGH SOCIAL INTERACTIONS IN *WARFRAME*

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CHAPTER 1: INTRODUCTION

Since the introduction of PONG in the 1970s, video games have developed into a multi-billion-dollar industry (Greitemeyer, Agthe, Turner, & Gschwendtner, 2012). To date, the annual retail sales of video games globally is 104.6 billion dollars (Superdata Research, 2017). Contrary to the image of video games as child's play, the average gamer is 35 years old with an annual average income of 58 thousand dollars (Superdata Research, 2017; ESA, 2017). The frequency of gamers is more common than might be imagined with an average of 1.7 gamers per household in the United States (ESA, 2017). With these trends, it is no wonder that there remains interest in the study of the impacts of video games. These effects may be able to provide insight into the kinds of social citizens' video games help to mold.

A majority of studies on video games have been focused on media effects, primarily the potential negative consequences of gameplay (Anderson et al., 2004; Anderson et al., 2010; Deskins, 2013). However, more recently there has been an emerging body of research on the positive effects of video games (Boyle, Connolly, Hainey, & Boyle, 2011; Greitemeyer et al., 2012; Tear & Nielsen, 2014). Despite previous research claiming violent video games are relative to aggressive behavior (Anderson, et al. 2004; Anderson et al., 2010, Deskins, 2013), the effects of violent video games can be diminished by playing those genre of games cooperatively (Jeroen, & Soetaert, 2013; Greitemeyer et al., 2012; Behm-Morawitz, Hoffswell, & Chen, 2016; Velez, Greitemeyer, Whitaker, Ewoldsen, & Bushman, 2016). Social interactions that take place between players can result in prosocial behavior both in-game and in real life (Greitemeyer, & Cox, 2013; Velez et al., 2016).

The same proactive potential that takes place through social interactions in-game that result in prosocial behavior, appears plausible for the development of one's tolerance to different

cultural backgrounds. In the realm of culture, an existing body of literature addresses the content

of gaming, such as representation or lack of, certain skin tones or ethnicities, or how the

appearance of one's avatar can provoke stereotypes (e.g. Behm-Morawitz et al., 2016). Although

a bulk of the research observes culture through the fault of the in-game content, that same body

of research acknowledges the proactive potential of video games and calls for further research in

this area (Boyle et al., 2011; Deskins, 2013; Ciuta, 2016). In the realm of intercultural

communication research, the use of simulation and games has appeared effective in building

empathy towards outgroup members and using the skills learned in-game for interactions in the

real world (Bachen, Hernandez-Ramos, & Raphael, 2012; Lane, Hays, Core, & Auerbach, 2013;

Bucker, & Korzilius, 2015). Thus, the proactive potential lies in the social aspect of gaming. This

proposed research intends to expand the proactive body of research by examining players'

perceptions of how, if at all, in-game social interaction impact their own intercultural

competence.

CHAPTER 2: LITERATURE REVIEW

This chapter intends to discuss research amongst scholars in both the field of games studies and intercultural communication in regards to online gameplay. The literature from game studies in regards to the social aspects of online video games focuses on interactions that take place in-game and how that corresponds to real-world social interactions. The background of the field of intercultural communication studies, the defining features of intercultural competence are also discussed, along with their relationship to the use of games and simulation in intercultural training. The conclusion of this chapter explains the research in both game studies and intercultural communication that overlap each other, followed by guiding frameworks for the proposed study and research questions.

The Social Dynamic of Gaming

The majority of research addressing video games largely pulls from the media effects perspective (Pena & Hancock, 2006; Steinkuehler, 2010). However, those perspectives are changing. There is a growing amount of research exploring the positive impacts of gaming, and those benefits are due in large part to social interactions in-game (Cole & Griffiths, 2007; Greitemeyer et al., 2012; Greitemeyer & Cox, 2013; Kowert & Oldmeadow, 2014). The social aspects of online games, primarily massive multiplayer online role-playing games (MMORPGs), are one of the major motivations for gameplay (Yee, 2006; Boyle et al., 2011). Multiplayer online video games are also considered a new form of "third place" between home and work, whereby individuals are able to engage in meaningful social interactions, similar to the interactions that occur in pubs and coffeehouses prior (Oldenburg & Brissett, 1982; Jeroen & Soetaert, 2013; Molyneux, Vasudevan, & Gil de Zuniga, 2015; Snodgrass et al., 2016). The

social aspect of online video games is considered important by its players, and this virtual "third place" can promote socialization that can also transcend the boundaries beyond that of the game.

Furthermore, the emergence of social groups surrounding gameplay has provided another lens of study on video games. Ang, Zaphiris, and Wilson (2010) have termed this emergence of social groups as "extrinsic play." Through research among hundreds of game forums across different game genres, social extrinsic play can either be expansive or reflective. Reflective play is the discussion surrounding in-gameplay (Ang et al., 2010), and is commonly seen through game forums and strategy guides along with existing players enculturating new players to the game (Nardi & Harris, 2005; Steinkuehler, 2006; Steinkuehler, 2010; Ang et al., 2010). Expansive play refers to things that transgress the intended gameplay of the game designers (Ang et al., 2010). This expansive play includes modifications to any aspect of the game, whether it be players creating their own rules or changing the virtual landscape of the game (Juul, 2006; Taylor, 2009; Molyneux et al., 2015). The product of these social developments related to games highlights the importance of observing video games via a social perspective. With respect to the proposed research, the expansive form of this model provides a framework in which the environment of games can promote unexpected social byproducts.

The environment of online games allows the opportunity for players to control how they express themselves. Many players find the video game environment as a safe space to disclose who they are, and feel that they have a platform to be heard (Pena & Hancock, 2006; Griffiths et al., 2011; Molyneux et al., 2015). The comfortability of players in sharing ideas and willingly communicating with others may be due to players having agency in choosing how they present themselves to others and the limit in nonverbal cues in-game (Pena & Hancock, 2006; Griffiths et al., 2011). This allows for a social environment in which players are able to learn and share

their quality characteristics or common interests, rather than focus on what they are (e.g. gender, ethnicity, race) in initial interactions. This provides potential for developing meaningful relationships online.

This same mediated environment that allows for more disclosure can also amplify negative social interactions. The notion that players can "hide" behind a screen, can allow for negative, patronizing, and even hurtful dialog to take place (Pena & Hancock, 2006). There have been instances where certain avatars are treated stereotypically (i.e. Black avatars being treated aggressively), to players either being linguistically profiled or English language learners being harassed when trying to communicate in English (Gray, 2012; Deskins, 2013; Behm-Morawitz et al., 2016; Behm-Morawitz, Pennell, & Speno, 2016). Stereotypes of certain ethnicities can also be shaped by the culture of the game itself. For instance, in *World of Warcraft*, Chinese players were given the stigmatized label of "gold farmer," portrayed as only wanting to loot for people's gold and having cheap gear (Nakamura, 2009). In regards to gender, there have also been negative experiences towards female players in online gaming, where they're perceived as less capable in in-game performance and are either treated with hostility or are coddled and patronized (Fox & Tang, 2013; Ivory, Fox, Waddell, & Ivory, 2014). Despite these accounts taking place in virtual environments, there is no specific research focused on how these interactions relate to the intercultural competence of players.

With focus on the social interactions in-game, a growing number of studies have found that online multiplayer games provide multiple channels for players to socialize with others and they are also highly utilized (Cole & Griffiths, 2007; Griffiths et al., 2011; Boyle et al., 2011; Ross & Collister, 2014). Looking into the types of interactions that take place, one study by Ducheneaut and Moore (2004) found that most of the interactions amongst players were

transactional and task-oriented. However, there were also players that were very interactive and engaged in mostly humorous conversation (Ducheneaut & Moore, 2004). Another study conducted by Pena and Hancock (2006), discovered that most of the conversations in-game were socioemotional (person- and relationship-oriented) rather than task-oriented. In addition, the socioemotional responses given in-game were also found to be more positive than negative (Pena & Hancock, 2006). It appears there is a variety in the type of interactions that take place in-game, and there is support for possible relationships to form in-game through meaningful interactions.

The impact of social interactions in-game pose questions as to how this relates to real-world social interactions. There is mixed consensus on this issue as some research supports that problems with social engagement in real life precede problematic game usage (Yee, 2006; Lemmens, Valkenburg, & Peter, 2011; Kowert & Oldmeadow, 2014), while others claim there are social competence deficiencies among players as a result of both online and offline gameplay (Kowert & Oldmeadow, 2013). However, a multitude of studies have conveyed that although players enjoyed playing games online, they valued socializing offline more (Cole and Griffiths, 2007; Griffiths et al., 2011). This provides a contrast image in that video game players aren't socially inept as commonly stereotyped, and that many players might already be social to begin with.

Furthermore, in terms of looking at how online experiences might spillover into real-world experience, there appears to a growing positive outlook. There has been anecdotal support to show that friendships have been formed online through video games and often those friendships transcend offline (Ross & Collister, 2014). One nationally representative study conducted by Molyneux et al. (2015) found that the development of social capital in-game was a strong predictor of building social capital in the real world, as well as civic engagement. This

indicates that there are positive skills learned in-game that can transfer into real-world interactions. Through these empirical observations it is clear that due to the unique nature of video games, with limits in nonverbal cues, players have potential to develop meaningful relationships. It is also clear that the social aspect of online video games appears pivotal in developing relationships both online and offline.

There is also the possibility that social interactions may remain superficial and contained within the game world (Ducheneaut & Moore, 2004). While in-game social interactions have the potential to be meaningful, the impact may not spillover into real life (Pena & Hancock, 2006). With this in mind, the next step is to see whether these mediated relationships occur between players of different backgrounds, and if so, how players' view these online experiences to contribute to their real-world interactions.

Intercultural Communication

The field of intercultural communication emerged in the early 1950s, based on work by Edward T. Hall at the Foreign Service Institute (FSI) (Rogers, Hart, & Miike, 2002). The need to study intercultural communication arose out of Westerners going abroad (Sinicrope, Norris, & Watanabe, 2007), and was created based on perceived cross-cultural communication problems after World War II, when very few of the Foreign Service officers spoke the language of their host countries (Roger et al., 2002; Abbe, Gulick, & Herman, 2008). This area of study laid the foundation for intercultural training. Initially, intercultural training was synonymous with language training, but it has since included, in addition to examining how different cultures communicate, the understanding of nonverbal communication, cultural elements being examined in light of its context, and the necessity of participatory methods for training (Rogers et al., 2002;

Sercu, 2004; Abbe et al., 2008; Ting-Toomey, 2010). Since then, these components have come to define the field of intercultural communication today.

The earlier era of intercultural communication studies focused primarily on national and ethnic cultures, but current the studies have included individual level constructs of culture entitled "subcultures," such as gender, political party preference, and religion (Chuang, 2003; Erez & Gati, 2004; Abbe et al., 2008; Oetzel, 2009; Xu, 2013). For the purpose of this study, culture is defined as acquired knowledge that members of a group learn over time through their interactions with each other and their varying environments (Erez & Gati, 2004). In this context, culture is fluid in that experiences and values differ over time and space giving new meaning to the knowledge acquired. Furthermore, the fluidity of culture relates to one's cultural identity. The cultural identities of individuals are multi-layered and are constantly being negotiated from macro-level structures such as national culture and organizational culture, to micro-level structures including group culture and the individual (Erez & Gati, 2004, Oetzel, 2009). All of these structures shape the worldviews of individuals, how they think, behave and interact with their environment and others (Chiu et al., 2013). In the field of intercultural communication research, the primary focus amongst scholars deals with how cultural differences can be managed (Xu, 2013). The study of intercultural communication is very much relevant today, as the Internet has connected individuals from various backgrounds who might never have met otherwise. With the increasingly globalized environment of the Internet, particularly to online gaming, there are many chances for intercultural encounters to take place. This provides another environment to observe intercultural communication in seeing how Internet users manage intercultural interactions and differences that may arise online.

Intercultural Competence

Intercultural competence is a concept born out of intercultural communication studies. Just as the field of intercultural communication is fraught with different names, the concept of intercultural competence comes in multiple nomenclature across various intercultural experts (Fantini 2006; Abbe et al., 2008, Leung, Ang, & Tang, 2014). Some of these concepts include intercultural effectiveness, cultural intelligence, intercultural competence, intercultural communication competence, cross-cultural competence, and intercultural sensitivity (Fantini, 2006). Despite the variation, the common thread amongst those varying definitions is that intercultural competence involves the ability to communicate effectively and appropriately in intercultural situations based on one's intercultural knowledge, skills, and attitudes and is comprised of a cognitive, affective, and behavioral dimension (Chen & Starosta, 1996; Chiu, Lonner, Matsumoto, & Ward, 2013). These concepts will be explained in greater detail below.

Intercultural competence has traditionally been divided into three different dimensions: cognitive, affective, and behavioral (Gudykunst, Ting-Toomey, & Wiseman, 1991; Chen & Starosta, 1996; Sercu, 2004; Williams, 2009; Chiu et al., 2013). The cognitive dimension is about the knowledge acquired about cultural norms, values, behaviors and issues (Chen & Starosta 1996; Chiu et al., 2013). This surrounds how individuals perceive other cultures or information from outside their own cultural worlds. Those who are interculturally competent exhibit positive attitudes towards intercultural contact and being open to other perspectives (Sercu, 2004; Williams; 2009; Leung et al., 2014). The affective dimension refers to enduring personal characteristics that determine an individual's typical behaviors as well as their motivations to engage in intercultural situations (Chen & Starosta 1996; Chiu et al., 2013). Those who are interculturally competent are able to deal with stress and ambiguity in intercultural

encounters (Williams; 2009; Leung et al., 2014). The behavioral dimension focuses on one's

ability to showcase problem-solving skills, and culturally-appropriate skills (Chen & Starosta

1996; Chiu et al., 2013). This emphasizes what a person can do to be effective in intercultural

interactions. Those who are interculturally competent are able to work effectively in a culturally

diverse setting (Hammer, 2012). This multidimensional framework for intercultural competence

provides insight on the different aspects of building intercultural competence, and one's

development can depend on a multitude of factors.

The development intercultural competence exists on a continuum. This continuum is

reflected in Bennett's (2004) Developmental Model of Intercultural Sensitivity (DMIS). This

model has six stages of intercultural competence (e.g. denial, defense, minimization, acceptance,

adaptation, integration), starting from the ethnocentric end leading to the ethnorelative end

(Sinicrope et al., 2007; Leung et al., 2014). In this model, ethnocentrism is defined as the

tendency to view other groups or cultures from the perspective of one's own culture, whereas

ethnorelativism is defined as the experience of one's own beliefs and behaviors are just one

organization of reality among many viable possibilities (Bennett, 2004). The following stages are

defined below:

- **Denial**: Individuals in this stage are comfortable with the familiar. They avoid or ignore

  cultural differences, and they try to maintain separation from those who are different.

- **Defense**: At this stage, individuals exhibit a strong commitment to their own thoughts and

  feelings about culture and cultural difference. They are aware of other cultures around them,

  but with a relatively incomplete understanding, and often having fairly strong negative

  feelings or stereotypes about some of them.

- o **Reversal** is the opposite of defense. Individuals feels that another culture is better and tends to exhibit distrust of their own culture.

- **Minimization**: Individuals focus on erasing difference. At this state, individuals have awareness that other cultures exist with some knowledge about differences in customs and celebrations.

- **Acceptance**: Individuals at this stage see their own culture as one of many ways of experiencing the world. They understand that people from other cultures are as complex as themselves. They pass no judgement on other cultures, but are instead actually curious about other cultures.

- **Adaptation**: Individuals are able to identify the value of having more than one cultural perspective. They are able to change behavior to act in culturally appropriate ways.

- **Integration**: Individuals have been able to integrate more than one cultural perspective, mindset, and behavior into their identity and worldview.

This model has a few assumptions, with the first being that experience is constructed. Our experiences are created through templates and sets of categories that help us make sense of the phenomena we are experiencing (Bennett, 2004). Through interactions with other cultures we can co-create or reinforce culture (Oetzel, 2009; Hofstede, Caluwe, & Peters, 2010). This model also assumes that contact with cultural difference should generate a change in one's cultural worldview to become more ethnorelative. This suggests that through more intercultural interactions, one's intercultural competence should improve. Social interactions in video games could serve as a new platform to examine whether intercultural competence can be developed online.

Moreover, when there are numerous predictors of intercultural competence. One of the predictors of intercultural effectiveness is prior experience in dealing with other cultures (Bennett, 2004; Abbe et al., 2008; Williams, 2009). Although the experience is focused on going abroad, in-game experiences in dealing with people from different backgrounds might be applicable. Empathy (both cognitive and emotional), and intercultural sensitivity are also predictors of intercultural competence (Abbe et al., 2008; William, 2009). Intercultural empathy is the ability of an individual to perceive things as it is perceived by people of that specific culture, and intercultural sensitivity is the ability to differentiate between cultures without assigning value (Bennett, 2004; Abbe et al., 2008; Williams, 2009). There have been a handful of studies that support the use of gaming and simulations in developing empathy (Jeroen & Soetaert, 2013; Bachen et al., 2012). The next step is to see if this empathy extends to intercultural sensitivity. Intercultural competence is arguably important in an increasingly globalized society, as it helps to relieve the negative interpersonal dynamics generated by working in multicultural teams (Hammer, 2012; Leung et al. 2014). The importance of experiential and highly-participatory format of intercultural training has been supported by intercultural scholars (Rogers et al. 2002; Fowler & Pusch, 2010; Bucker & Korzilius, 2015). Thus the immersive virtual worlds of online video games are plausible sites for players to engage and develop their intercultural competence.

Bridging the Gap

There appears to be two discussions that parallel each other in realm of intercultural studies and video game research: the potential of video games and simulation in promoting empathy across different groups. Many intercultural scholars praise experiential methods such as simulation in diversity training, as they mirror the way the mind visualizes potential interactions

(Hofstede et al. 2010; Wiggins, 2012; Pena & Blackburn, 2013). Players can practice certain actions in a safe environment and learn the consequences of those actions before enacting them in the real world. Studies have shown that intercultural games have increased intercultural empathy, knowledge, and skills in the real world (Ang et al., 2007; Bachen et al., 2012; Fowler & Pusch, 2010; Bucker & Korzilius, 2015). Intercultural scholars have deemed that the future of intercultural training lies in online virtual worlds, and that further study should be examined on those who play games as they will eventually contribute to society (Fowler & Pusch, 2010).

The same note has been reiterated in the realm of game studies, scholars have found that video games can reduce prejudice through the embodiment of outgroup members as avatars, and how the social aspect of gaming has positive impacts on prosocial behavior in the real world (Lane et al., 2013; Behm-Morawitz, et al., 2016). There is also discussion of the potential of players being able to develop competencies related to cultural codes, values, knowledge, skills, and attitudes through in-game interactions (Bachen et al., 2012; Jeroen & Stoetaert, 2013). These discussions have found positive effects of interacting with cultural others in-game, but the research on the impact of social interactions with real cultural others in-game in developing intercultural competence is nonexistent. This research aims to build on and to bridge on the current research on the potential positive effects of social interactions in-game in regards to building intercultural competence.

However, interactions in online environments may not always actually result in changes in real-life interactions. In regards to using simulations in the development of intercultural competence, there appears to be affective change amongst participants, more specifically intercultural empathy (Bachen et al., 2012). It is not evident, however, that that empathy translates to effectively negotiating with people of different cultural backgrounds. Furthermore,

most intercultural simulations that occur though digital means are often with non-playable

characters with a limited number of outcomes. While it does allow users to practice cross-

cultural negotiation skills, it does not account for them to explore other possible outcomes when

interacting with people from different cultural backgrounds (Bucker & Korzilius, 2015; Behm-

Morawitz et al., 2016).

Theoretical Frameworks

This study draws from the contact hypothesis (Allport, 1954; Amichai-Hamburger,

Hasler, & Shani-Sherman, 2015) and social constructivism (Berger & Luckmann, 1966;

Vygotsky, 1978; Wiggins, 2012). The contact hypothesis posits that if members from different

groups have positive interpersonal interactions with each other, then any prejudice that currently

exists towards toward each other should decrease (Allport, 1954; Amichai-Hamburger et al.,

2015). This indicates that members of the majority or "ingroup" will have reduced prejudice

towards the minority or "outgroup" (Allport, 1954). In the context of this study, any members

who are of different cultural backgrounds from the subject are considered outgroup members.

There are many opportunities for positive experiences to form in online games, as many games

have objectives that incentivize teamwork. The social constructivist approach comes from the

perspective that learning is situated in societal and environmental frameworks in interactions

with others, primarily through culture and language (Berger & Luckmann, 1966; Vygotsky,

1978; Wiggins, 2012). The interactions that take place in online games, no matter how

superficial, are opportunities in which players are able to learn about those they interact with

whether through voice or audio chat. Guided by these frameworks, this study aims to explore

whether in-game interactions can promote intercultural competence just as real-world

interactions do. With these theoretical frameworks, the follow research questions are posed:

- **RQ1**: How do players perceive their social interactions in-game to contribute to the development of their intercultural competence?

    - **RQ1a**: How do players' in-game interactions with outgroup members relate to their understanding of that outgroup?

    - **RQ1b**: In what ways does that understanding shape how they interact with cultural outgroup members in the real world?

    - **RQ1c**: How do these in-game interactions shape players' intercultural sensitivity?

    - **RQ1d**: How do these in-game interactions shape players' intercultural empathy?

CHAPTER 3: METHOD

Considering there is no specific research in regards to how in-game interactions relate to players' development, if any, of their intercultural competence, an exploratory study seems the most appropriate fit. To explore how players perceive their social interactions in-game to contribute to the development of their intercultural competence, data was collected through one-on-one semi-structured interviews. Conducting interviews via open-ended questions allow for the elicitation of rich detail from the participants' own experiences.

Examining *Warframe*

The answers to these research questions rely on the experiences of gamers who play *Warframe*. *Warframe* is a completely-online third-person shooter game in which players follow the storyline of an awakened ancient being from the group of "Tenno" who find themselves in the middle of a war that is waged between against the "Grineer" race (Warframe Wiki, n.d.). Players then discover that the Tenno use biochemically enhanced shells called "warframes" that they use to fight on their missions (Warframe Wiki, n.d.). This game is fairly new, being first released on PC and PlayStation 4 in 2013, then the Xbox One a year later. This game is free-to-play and it has amassed 38 million players worldwide since its inception (Grub, 2018). Although this game is not considered an open world game, there are many opportunities for players to interact with others in-game.

Affordances in *Warframe*

The concept of "affordance" was originally coined by James J. Gibson which is deemed as the properties of objects, and is perceived in relation to an agent's capabilities (Rambusch & Susi, 2008). In regards to video games there is the affordance of interactivity and sociability. In regards to interactivity there is the functional aspect that relates to the structural interactions of

the users with the material components of a system (Jiow & Lim, 2012). This involves both the available controls the user has of in-game characters, the in-game features, and the environment of the game. There is also the affordance of sociability in within video games. This has evolved from in-game interactions being limited to the vicinity around the console or device, to interactions amongst strangers from different parts of the world (Jiow & Lim, 2012).

In terms of the interactive affordances of gameplay in *Warframe*, there are a range of opportunities for players to work together. There are quests which are the main storyline campaigns, and missions in which players work together to complete certain tasks. Both areas allow a maximum of four players to interact in-game. There is also the "conclave" which has various game modes that pit a team of four against another team of four. Users are able to communicate with other players via text and audio chat, and through emotes through their avatars (Digital Extremes, 2013). Players are also able to join factions and clans that come with certain perks.

In addition to the gameplay, there are many social affordances within the game. There are sites called "relays" in which players can interact with each other and a few non-playable characters (NPCs). Players are able to trade, sell, and discuss with other players within that relay. Players are also able to continually connect with people regardless of whether in a relay, or in a certain game mode, as the chat feature is readily available for access (Digital Extremes, 2013). There are four chat modes: chats that go out to the region a player is playing in, a clan chat if players have joined one, a recruiting chat for players who are looking for help on certain missions, and the trade chat where players indicate what they want to sell or buy from others ("How can I chat in Warframe?", n.d.).

The plethora of game modes and the multitude of communication channels allows for multiple opportunities for players in-game to interact with one another. Despite the game being free to play, there still appears to be a loyal following and community behind the game, and the virtual world of *Warframe* is slowly becoming more open world (Sinha, 2017). Since *Warframe* is still fairly new, the research surrounding this game is non-existent. The game's ready accessibility, multimodal communication channels, as well as its growing community base allow for many different kinds of social interactions to take place which will provide rich context for this study.

Participants and Sampling

Participants were players of the game *Warframe*, and who have played for at least three months. Players of all levels, all backgrounds, and all platforms were eligible to be part of the study. From the eligible participants, purposive sampling took place with focus to selecting participants from different demographic backgrounds. Participants were recruited via several gaming forum sites through solicitation (see Appendix A), and through flyer advertisements (see Appendix B) at two university campuses. The gaming forums sites included:

- Warframe Subreddit
- Official Warframe Forum
- Warframe Wiki Forum
- Steam Community Forum
- GameFAQs

These forums have a large community of *Warframe* players that are current and actively engage in discussion about the various aspects of the game across various gaming platforms (e.g. PC, console). These sites also have international users and forum groups, which allow for the

solicitation to reach a multitude of members of different backgrounds. In the solicitation texts on

the gaming forum sites, a link attached to an online survey was used to screen eligible

participants (Appendix C). Participants solicited through the flyers were emailed the link to the

online survey. The survey collected their email address, initial demographic info, and their

experience with playing *Warframe*. This information worked towards the aforementioned

purposive sampling. Solicitation took place from mid-December of 2017 till mid-January of

2018.

Developing the Interview Guide

The questions for the interview guide (see Appendix D) were developed based on the

collective literature and frameworks mentioned prior. Questions 1-2 aimed to address both the

negative and positive social interactions players may have come across within the game. The

purpose is to have them reflect on their experiences about how culture may or may not have

played a role in those experiences. Questions 3-4 address what kinds of information is disclosed

when communicating in the game with other players. This may provide insight as to how much

of one's cultural identity is discussed when conversing with other players. Question 5 addresses

the social interactions and experiences of participants with players of differing cultural

backgrounds, and whether those experience added new insights about the culture. Question 6

addresses possible impacts of those social experiences in developing intercultural empathy and

intercultural sensitivity. Question 7 addresses the extent to which the in-game social interactions

shaped players' intercultural competence in real-life interactions with people of similar

backgrounds.

Interview Procedures

Selected participants were contacted via email to set up an interview. Once the

appointment was set up, participants were given a unique identification number to input on an

online consent form (see Appendix E). Interviews were conducted online via audio chat through

Talk.gg. Prior to the interview participants were emailed a link to an online consent form rerated

through *Qualtrics*, which they were required to fill out. Participants inputted their names, their

given identification number, selected "I consent" and provided signatures. Participants then had

the opportunity to save a copy of their responses for themselves.

Prior to the interview, verification of a completed consent form was done. Ten minutes

prior to the interview, participants were emailed a link to enter an online chatroom via *Talk.gg*.

Talk.gg is a simple online chat website meant for gamers. Participants were not required to set up

an account to use the feature and the only channel of communication was audio. Participants

were reminded that that the interview was recorded and would be transcribed. Participants were

also informed that once the interview was finished they would no longer be contacted unless they

expressed interest in getting the results of the study. The interview was semi-structured, with

seven questions total. On average, interviews lasted 45 minutes.

Data Analysis

Once all interviews were conducted and transcribed the transcriptions underwent

thematic analysis. Thematic analysis involves themes that ascribe meaning to the data set. They

describe and organize possible observations (Saldaña, 2013). The data set for this study are the

transcripts from thirteen interviews. All interviews transcripts were reviewed and then coding

categories were developed by reading and marking the transcripts on *NVivo*. Repeated coding of

the transcripts lead to further consolidation of codes and a development of a number of themes.

Themes can arise at the manifest level in which themes are generated from directly observable

information. Themes can also be latent, in which underlying patterns, ideas, and assumptions are

inferred by the researcher (Saldaña, 2013). For the purpose of this study, latent themes were

elicited, but in rich detail. These themes will be defined and discussed in the the results section,

and supporting quotations from participants will be used to support the analysis.

CHAPTER 4: RESULTS

After an initial 155 *Warframe* players responded to the screening survey to participate in

this study (see Appendix F for survey demographic information), a total of thirteen participants

were selected and interviewed. Factors such as country of origin, experience with the game,

gender, age, and modes of communication used in-game, helped to guide the participants to be

initially chosen for the study. A total of 37 callouts to interested participants were sent out via

email, but fifteen participants failed to respond after two follow-up emails. Two of the

participants ended up opting out due to unforeseen circumstances, and a rescheduling of the

interview could not be arranged. Seven participants could not make arrangements that worked

for both them and the researcher, resulting in thirteen participants who consented to take part in

the interviews.

All names of the participants were changed to protect participant confidentiality. See

table 1 for demographic information on each participant.

Table 1: Participant demographic information

Name	Age	Gender	Country of residence	*Warframe* experience
Tomo	19	Male	Serbia	2 years
Dread	18	Male	Denmark	2 years
Kinder	19	Male	Germany	4 years
Shop	32	Male	Ireland	6 months
Box	44	Male	Canada	2 years
Ember	21	Female	United States	2.5 years
Luno	19	Male	Spain	1.5 years
Wander	26	Male	Netherlands	5 years
Psyche	34	Male	United States	3 years
Trinity	22	Male	United States	4 years
Glitch	28	Male	United States	11 months
Mass	20	Male	Philippines	1 year
Valkyr	20	Male	Malaysia	4 years

The themes that emerged related back to the topics discussed in the literature review and answering the research questions posed. Thematic analysis appeared an appropriate fit for an exploratory study that examined the insights, beliefs, constructs, identities and experiences of the participants in relation to the shaping of their intercultural competence (Saldaña, 2013). The first round of coding involved coding the interviews solely from what participants stated, which resulted in 23 themes. The second round of coding involved consolidation of many smaller themes, catered towards responding to the proposed research questions. This resulted in seven larger themes. The third and final round of coding was to confirm that all subthemes that were categorized were fitting and that no themes were overlapping which resulted in a total of four final themes. The following themes include:

1. Issues with making meaningful social connections

2. An overwhelmingly empathetic community

3. Exhibiting predictors of intercultural competence

4. Disclosure of players' personal identities

Issues with making meaningful social connections

Despite *Warframe* having various opportunities for players to take part in socialization with others, most participants described having very superficial ties. This is rather important considering that because there were so many accounts of participants having difficulty in making strong social ties in the game, and this could possibly relate to a limited or understanding of players from different cultural backgrounds. This also helps to provide context for answering the proposed research questions of surrounding in-game interactions in relation to players' intercultural competence. For instance, the clan feature of the game was created to incentivize players to join social groups and they would also gain access to new resources such as blueprints

to build materials for the game. However, for most players, progressing through the game was the only reasoning for joining clans. Often the deciding factor of which clan a participant would join was dependent on how much in-game content the clan had unlocked.

>   **Psyche**: I mean I'm in a clan but really only just... that's pretty much it. I'm in a clan and I joined to take advantage of the clan research and the trading posts. I think they have a Discord; I see it on the message of the day, but I frankly have no reason to use it because I'm really just in the clan out of convenience. I'm not really interested in trying to do stuff with the clan, or go out of my way to do stuff with them. It's just a relationship of convenience. I don't really chat and hang out. I used to play *World of Warcraft* and that was a lot more intimate, or at least in my in-game interactions in relations to other players were a lot more intimate than it is in *Warframe*.

The intended socialization that would occur in addition to access to in-game features did not appear of much importance to Psyche, whose reason for playing the game was purely progression. This resounded with other participants who also took advantage of joining clans at a whim, with no actual thought or consideration about whether that particular clan would be a good fit for them. When probed about what he knew about the clan or the people in it, Psyche claimed that he actually did not know nor did he never interact with any of them. Aside from gaining in-game content, there were in-game events that were only accessible for players within a clan.

>   **Wander**: The reason I joined; I guess it's a bit selfish, but there was an event and I needed a clan to get a certain blueprint. I think it was the Ignis [a weapon]? So I was trying to find a high-level clan and they were the first response, so I was like "oh yeah, sure!" They had a funny name, so that helped too. They [are] a mountain clan. It's kind of

sad because in my old clan, I was actually part of building the dojo. Back in the time where everything cost a ton of forma, we had a ton of forma [in-game resource used to level up clans] at the time. It's sad because I don't think that clan exists anymore. Wander was an active member at starting up his own clan at one point in the game. However, the financial and material investments, and the digital labor needed to sustain a clan was something he could not keep up with on his own. While Wander is a social gamer, this event had a limited window and so his requirements were similar to Psyche: find a clan with the most in-game content unlocked and join whichever clan was the first to take him in. This struggle in building strong social ties is often the struggle that many other players dealt with.

Many of the participants who are currently part of a clan, have not been part of it very long. Ember is currently part of a clan that is dedicated towards making their warframes aesthetically pleasing also known as "fashion frame," and she's only been a part of it for six months. However, Ember shared the same plight as Wander in not being able to maintain the clan she first started and thus set her sights for more sustainable clans.

> **Ember**: The first one I was ever in was made by one of my friends, who also played *Warframe*. I first got into it, but it was a one-man clan, with just me and him and he eventually stopped playing so I had to fund the whole thing myself, and I just got kind of tired of it. I couldn't keep up with it so I left the clan and I knew that it would still exist when I left because he was still in it. I eventually left that clan for a clan I found in recruit chat that said they had most of the research done and that was what I wanted... I [then] jumped to another one in the alliance. I could still talk with all the same people... That was fine for a while, and I actually liked that clan leader, and the guys in the clan. I kind of miss them and I recently saw one of them in a random pub and was like "hey dude

how's it going?" I jumped to another clan through recruit chat and that one was okay, but

the activity level was a little bit low. Still, it was a shadow clan? One step up from ghost.

There wasn't that many people in it, but they were friendly enough. I would've probably

stayed in that one if I wasn't challenged to a fashion-off.

This nomadic-like experience that Ember had was also reflected by most of the participants when

talking about clans. This constant movement from clan to clan may be the result of players

joining without further examining what the clan is really all about. In the case of Ember, her

leaving this clan that she appeared to have strong social ties with was a consequence of her

disclosing her identity, and will be discussed further in the theme regarding disclosure of players'

identities. Coming back to the constant movement between clans, Shop realized the clan that he

was receiving so many free in-game items from did not align with his playing style at all:

Shop: I left because the clan leader kept besting us to not abort missions, because for

some reason he wanted to have the percentage of completed missions to be above 90%. I

don't know why he was really fixated on that, and like he would give a shit like "Ugh, the

percentage is very low this week. You'll have to play at least 50 missions and not leave"

and I'm like "nah man." I do this shit for – this is a game, it's not a job. So if I got to

leave a game because my wife is asking to go out for dinner, or if I got to turn off the PS4

because my dog took a shit on the carpet, I'm gonna go. I'm not gonna be "oh shoot,

sorry. I can't do real-life because my percentages gone down" nah fuck that.

Shop enjoys the social components of *Warframe* so much that despite him not being part of any

clan anymore, he hangs out with people from a clan that he met through the game, that also live

in the same city as him. However, his experience emphasizes that perhaps just having access to

much of the in-game content is not enough to allow people to stay active within the clans.

Players have mentioned that some of the clans they were a part of had activity requirements in which players had to be active within a certain amount of days or end up getting kicked out. Yet, once players receive the items they need, they will not lose them even if they get kicked out of the clan and they can always join another one at any time.

While most players tend to play online games with their real-life friends, an overwhelming majority of participants shared that getting their friends to join the game and stay in the game has been an issue since *Warframe*'s inception. Trinity, an avid *Warframe* player, has only one friend who he knows in real life, and that he regularly plays with. However, when he started, he felt alone in traversing this new game world.

Trinity: The hard part with *Warframe* is, it's impossible to get people to play it. Especially during that time, it had a really bad launch, like people were really skeptical about how well it would turn out. So for me, it was really hard to get friends to play with me. Especially since they all had consoles, and they didn't port it to consoles yet so you had to have a PC that could run it, and a lot of my friends didn't have that. It was often lonely in *Warframe*, despite it being fun and neat and stuff.

Trinity himself also did not like the game when it first launched, and after a year hiatus from the game and a bunch of upgrades later, he was hooked. Most participants also shared this narrative of not showing initial interest in the game after trying it. Many of them discovered the game on their own, and then after rediscovering the game, they tried to share that love and excitement for the game with their friends. The furthest they got with recruiting friends was having them install the game and try it out, but they ended up either being inactive players or they scarcely jump onto the game. Some players, like Tomo, have not been successful in getting their friends to join the game. When asked why his friends don't play he explains:

Tomo: because every time I convince somebody to play it – "oh it's just a basic science

fiction shooter," "it's boring," "it's brain-dead," "it's retar-" yeah. They kept saying it's

not for them because it doesn't involve that much brain power and that's it.

Perhaps it is the lack of competitive gameplay within *Warframe* that does not seem to attract new

players or perhaps just like Tomo, who also initially did not like *Warframe*, they need to take a

hiatus from the game and fall in love with it all over again. In trying to make social connections

within the game, players have also tried to bring those forged relationships to a digital

environment. In many cases like Tomo's, participants found it to be fruitless. This, paired with

his weak social ties in the game, is what lead Tomo to describe very transactional interactions

with a majority of other players.

Despite players being part of a clan or having many people they have met in-game on

their friends list, many of them do not play with their clanmates or their added friends. One of

the reasons in addition to not wanting to interact with other players, is that most of their added

friends end up being inactive. Another reason is that most in-game missions can be completed in

a short amount of time by oneself. However, participants shared that endless wave-survival type

missions appeared to be the the most conducive to socializing. Most players ended up friending

other people when completing that type of mission, but even if a player is doing an endless

wave-survival type mission, other players are able to opt out and leave the mission after every

five waves. Glitch emphasizes this fleeting game experience when talking about *Warframe*.

Glitch: In terms of like social interactions, I feel like an MMORPG like *Final Fantasy*

XIV is way more suited for that, because in *Warframe* it's mostly touch-and-go types of

interactions. You fly in, you get match make with randoms, you do the mission, and then

"bow!" you're done. Even something, I don't know, maybe you could find like at least

three other dedicated players to run the raids with on a regular basis, in a sort of static

group. I can only imagine, for me anyway, any deep social interactions looming in

Warframe.

Glitch's talk of a hypothetical situation of finding dedicated players to do missions with also

appears to be a hypothetical to many of the participants. Psyche, who loves *Warframe* for its

progression and customization and has a few real-life friends who seldom play the game, is

almost always playing with randoms (i.e., unknown players in the game), if not, solo.

> **Psyche**: I mean I've got like 500-something hours in *Warframe*, which isn't a lot but it's
>
> not a small amount either. I have a couple friends who play randomly, but it's almost a
>
> solo game for me. I mean, yeah, I'm playing with three random-other-people every time I
>
> play a mission but I'm not in a group with friends or with these people that I play with
>
> regularly.

The imagined meaningful social connections that are supported by the clan feature of the game

are not being utilized for that purpose. While there is incentive to join a clan, and even set

activity level requirements, most players interviewed did not care and were willing to leave and

join another. For the participants who do like to socialize with other players, it is often difficult

to maintain the communities they have already formed within the game, forcing them to leave

and find more sustainable clans. Players also struggle to bring real-life friends on board to the

game often resulting in them playing random public missions, and thus not having a regular

group of people they can play the game with leaving little room for strong social ties to form. All

of these factors result in less meaningful social connections within the game which may limit the

impact of these interactions on their intercultural competence.

An overwhelmingly empathetic community

      Participants of the *Warframe* community highlight how overwhelmingly positive the community is to both newcomers and current players in the game. Much of this "pay it forward" mentality is attributed to the steep learning curve in the game. There are minimal in-game tutorials provided and most players disclosed having to rely on the forums and Wiki guides to figure out how to farm for items needed to either build a weapon or warframe. Valkyr has played *Warframe* since he was a teenager, and now as an adult he helps out newcomers.

      Valkyr: The positive experiences I [have] had while playing *Warframe* was helping

      newer players get used to the game. As you know *Warframe* doesn't exactly hold your

      hand. So my positive experience is helping newer players enjoy the game and doing what

      I did when I was younger playing *Warframe*.

Through assisting other players in the game, he mentioned that he was able to connect with people from his university through the game. Valkyr has extensive knowledge about *Warframe* and despite some encounters with elitism amongst players towards the preference of a warframe over another, he believes a great sum of the community has positive intentions. This assistance through the game is not limited to guiding new players through the missions, but also in helping them circumvent the process of having to spend hours gathering items to build parts for weapons or warframes altogether by providing the parts needed to build weapons. Participant also shared experiences of explaining the different functions and elements of the video game in great detail to other players. Luno's experience greatly reflected this empathy of community members.

      Luno: I think it's more like the continued efforts of different players throughout the years

      have made it tradition. For example, to help new players when they come into the game;

      give them mods, help them with different blueprints, different dojo research. It's sort of

tradition at this point. Every time I see someone asking for help in region chat, even if it's

"hey how I do I get more platinum?" I'll help them; I'll give them all the free codes,

weapon codes that they can use. I tell them to go to trade chat. There is a mod system that

a lot the new players don't get – I have explained that modding system eight or ten times.

But really it's just because people were nice to me when I started, so I think it's my duty

to be nice to others when they start.

Like Luno and Valkyr, almost all of the participants described having helped players through

missions for hours on end simply because they knew all too well the difficulties of starting out in

the game. Often times, it seemed experienced players would take on the bulk of the work and

notify the bewildered new player what items they should pick up. If the players they were

helping out did not quite understand what was going on, the response to that seemed to be along

the lines of "don't worry, you'll need it later." While the game's steep learning curve may

encourage veteran players to share their knowledge and expertise with newcomers, their

approach to helping them may also be just as steep. Nonetheless, their intentions appeared to

come from good places.

When participants were probed about why they believed the *Warframe* community to be

considered so positive, many of them stated primarily that the overwhelming amount of positive

sentiment amongst players was due to the game being very much a Player versus Environment

(PvE) game. In PvE game modes, it is always a team of real people formed together against non-

playable characters (NPCs). If the team loses it is not to other players; just computers.

Participants, such as Dread emphasize this distinction.

Dread: I think a big part of it is the cooperative nature of the game. Instead of it being

competitive, which can incentivize people to be angry at their teammates, opponents...

when they're doing poorly. In this game, well everyone is on the same team so you can't

get angry for people beating you.

Dread himself never recalled himself ever being angry or being harassed by other players if they

failed a mission. However, he notes that a consequence of this environment is that there is a lack

of end game, or an ultimate objective for players to strive for, once they have completed all of

the quests in the game. It seems the need for end game is fulfilled through experienced players

helping other players from an individual level with player-to-player all the way to group-to-

player, such as organized teams that assist new players through raids in the game. The PvE factor

continues further with the fact that all players have access the same in-game rewards.

Kinder: You team up with other players to fight against computers; not other players.

That aspect is something nice. Everyone gets nearly the same loot, nothing is only for one

person, so people will help each other to increase the fun or just get the person further

ahead into the game. If I look at games like... *Terra*, these are PvE games, but there are

robs and loot that are person-specific, so there's a big greed factor that plays with it. So

there's really no reason in *Warframe*.

Most players point to the lack of competitive gameplay, and when asked about the Conclave

feature of the game in which there are several Player versus Player (PvP) type of games, most of

them have rarely played that feature. For those who have, the response is that Conclave is its

own section of the game and has no overlap with the main game itself. Furthermore, participants

stated that even those who adamantly play Conclave are generally regarded as friendly too. It is

apparent that the environment of the game has reduced the potential for any toxicity to grow.

While players revered the community for its positivity, that positivity appears to mostly

deal with the game only. Kinder claimed to be extremely helpful to all players in the game, and

would actively reach out to players that stated they needed in help in the region chat. Also, he would often sell parts players needed at extremely discounted prices.

> **Kinder**: To help with someone, I'm like "hey, do you need help with something? I could help you with stuff" and when they say "yes I need help with this and that," then I go with the person. Like, if it's a Master Rank 2 person who is trying to get, like, the warframe Rhino Jackal. I'm like "okay." I equip low mastery stuff, everything that has no damage like the stalker weapons, and then go through the phases of the boss and help the person to do it until the person has every part of the warframe... After the mission I was like "hey dude, you want to have the mod discounted for 90% off the price?" So he gave me 1 platinum, I gave him the mod. He was happy.

Although there are these kind and helpful experiences, players often describe these experiences to be fleeting, which could relate back to weak social ties. Players that shared these experiences stated that they were only one-time events. Mass recalls this moment when he was assisted by someone when first starting out. The player he met ended up helping him through the game, talked to him in more detail about the various components within the game and Mass ended up adding him as a friend.

> **Mass**: The first one I can remember was when I started playing. Like the first two weeks in. I got queued with a random person in public matchmaking, and I was asking around. He was one of those guides who went to lower-level missions to help people around. He was like "Hello, is this your first time playing?" and I said "yeah!" He went and played with me for like two hours after that... We would talk in-between queues. It was all about the game. He just like told me stuff about how it was like when he started, what to farm for, what to avoid, how to make plat, stuff like that.

The conversations that took place within the game appear to be related to the game for a majority

of the conversation. This appears to make sense considering the steep learning curve of

Warframe. It was an impactful moment for Mass, but soon after that person no longer was an

active player. The community is extremely helpful, but it seemed that most of the help players

described giving others often surrounded in-game content and were often task-oriented.

Although limited, a few participants shared moments of helping other players with issues

outside of the game. Both Ember and Tomo appear to be social gamers, staying in constant

contact with their clanmates, engaging with them via Discord, an online audio and text chat

program for people who play games in parties. Tomo is one of the most active and higher

ranking members of his clan. Due to his helpful nature he is willing to assist others regardless of

if he has had experience with those issues.

> **Tomo**: So at some point I was in Discord with the guys I made friends with in the clan,
> and I just see a message from a new clan member like [saying] "can you give me
> relationship advice?" The guy that was with me in Discord, I'll just call him "Deck" from
> now on because that's his name. Deck wanted to type something, but I made it to him
> before that. Even though I had no relationship experience, but you know, [wanted to add]
> my two-cents to it. So I message the person asking "What's the problem, how can I help?"

Eventually, Tomo finds out that this player is in a dispute with their boyfriend about whether he

should spend money on a game or a new phone. Through conversation also learns that this

person is gay. Tomo shares that despite him thinking about the stereotypes associated with gay

people he pushed those aside and did his best to provide insight. He did eventually become

friends with this person, but this friendship ended abruptly due to fallout. The same thing applies

to Ember who tried to connect with a clan mate that was going through a difficult time.

Ember: We recently had a clan mate who was kind of having a hard time dealing with

depression. So we were chatting about that a bit, and I told him about my struggles with

anxiety and stuff like that... he went on a bit of a depressive streak and removed himself

from all the clan Discord and all the friends' lists and stuff like that so I sent him the links

to get back onto the Discord and things like that. I just feel sad; I don't know how to talk

to him.

In this case Ember tried to relate back to her clan mate, but she also knew that there was only so

much she could do. Perhaps her restraint could be due to the notion that most of the interactions

in the game are almost always about the game. Most participants shared this similar sentiment of

not getting too serious or discussing things about personal life within the game. However, it

seems that most participants had accounts of enacting empathy towards other players.

Exhibiting indicators of intercultural competence

When participants were asked about whether their in-game interactions had any impact

on real-life interactions with people of similar backgrounds, most of them claimed that there was

no overlap. However, the experiences participants shared exhibited both skills of intercultural

sensitivity and intercultural empathy. When asked about any connections between the two many

were stumped at the question, as they had never thought about how their in-game experiences

might influence their real-life interactions.

Shop: In what ways?... Hmm. I don't know like, I'm used to dealing with people from

very international backgrounds, and such being in Europe, especially in Dublin. Dublin –

there's a lot of foreigners in Dublin. *I* am a foreigner in Dublin. Let's see... I suppose I

haven't really though too much about it; like how it's changed my perception of them. I

don't know. It's a tricky question, because I haven't thought about it before, so it's the

first time I'm trying to think "does it?" "has it?" I don't think it has, sorry.

Although Shop declares himself being interested in multiculturalism, being an immigrant in

Ireland from Venezuela, he had not put much thought about what the role of culture was in his

in-game interactions. However, his actions with how he dealt with people from different cultural

backgrounds proved otherwise.

> **Shop**: I would think so far, I am the only foreigner in that group of people. So they're all
>
> from Dublin, like they're all Irish citizens from Irish parents, and I suppose, when I play
>
> with them and we meet outside, I kind of know about social subjects they dodge when
>
> they're not doing *Warframe*. Like a lot of people in Dublin would be after sports – they
>
> watch the GAA (Gaelic Athletic Association) and they watch the rugby matches. So
>
> that's something that I can talk to them, form knowing they're Irish and from Dublin.

While minimal, Shop was aware of things that might be of interest to the people in his

community, despite their difference in cultural background. He was able to discern what would

be a good way to connect with his fellow Irish mates. In addition, most participants claimed that

much of their views of people from different cultural backgrounds were either nonexistent or

heavily reliant on mass media prior to interacting with players from those backgrounds.

> **Kinder**: It really didn't change. The perceptions I have the country is mostly through
>
> media and it will most likely also change through media. With media, I mean news,
>
> journals, and all that stuff.

Kinder's perceptions of other countries are often based upon his consumption of mass media

despite having encounters with players from Russia, Eastern Europe, France, the U.S. and Korea.

Yet again Kinder did not see himself as interculturally competent, but his response to how he would treat others from different cultural backgrounds provided the opposite picture.

> **Kinder**: How I treat people in real life and how I treat people in games is still differently because I wouldn't like to treat people like from Asia, only because they are good in *Warframe* and I played with some of them, or they really suck, I wouldn't go up to an Asian person I know and treat them like "Oh my god, you can play really good" or "oh my god, you suck because you're Asian."

Kinder is keen to not make any gross generalizations about a certain ethnicity solely from in-game experiences. As for Ember, she recalls how she learned how similar the city of Johannesburg, South Africa was to a city in the United States as opposed to the way she had initially seen Africa portrayed in other forms of media.

> **Ember**: Probably the guy from South Africa that I mentioned before. Cause we've been chatting for a while before, and then he was like "I actually live in Africa"... I hadn't really thought about Africa in general; sounds really weird, but I just didn't. So I ended up looking up the city that he said he lived in and stuff like that and learning a bit about it. [I learned] that it's one of the most populated cities in Africa; looks like a really generic city. It's funny because every other time I've see Africa mentioned online, they show some like watering hole with a bunch of Black people around it looking very sad. It just looked astoundingly normal.

While the point that Ember tried to make was of how her perceptions of Africa have widened beyond the stereotypical "watering hole" image, there is some ethnocentric undertones about what she considers to be normal. However, even though there appeared to be limited real-life behavioral impact in regards to intercultural competence as a result of in-game interactions, most

participants seemed to enact indicators of intercultural competence, such as intercultural

sensitivity in which participants remained nonjudgmental to people from different backgrounds.

> **Tomo**: When I meet new people, and they tell me where they're from after we talk. I sort
>
> of just go "okay" because I don't have that much prejudice against ethnicities and what
>
> not, though still in the back of my head I have all the stereotypes, the actual prejudice that
>
> comes from these stereotypes, but I push those aside because every person is different
>
> and I really try not to judge them based on that. I try to judge them based on how they
>
> interact with me, how they act towards me and that's it. It might sound contradictory to
>
> what I said earlier.

Tomo's response was in similar to fashion to most of the participants. From these responses it

appeared that most of them were in between the "minimization" and "acceptance" phase of the

DMIS (Bennett, 2004). Participants seemed aware of some of the different cultural facets of

outgroup members, and some understand that people from other cultures are just as complex.

This appeared to be evident to Trinity as well.

> **Trinity**: It's made me realize that... when it came to playing with Warframe with other
>
> people, I'm not running into a lot of people in my situation where [they] were just like a
>
> bunch of students having part-time jobs. People have full-on lives, people that are
>
> actively fighting their depression; they just play *Warframe* because it's just a way that
>
> they can still reconnect with the world. For some people it's their escape from their
>
> troubles at home, and your troubles at home can include being unemployed, being on
>
> long-term disability, just not knowing what they're doing with their life but Warframe
>
> sounds great. It's just kind of keeping in mind that no matter where you go and no matter
>
> where you think you are, you never really know where you're going to stumble into next;

or what. You don't even know, especially without voice chat like if the person you're

talking to is really giving off the persona that they convey in real life, or if it's just this

artificial character.

Trinity brings up the point that the people they might be playing with might just be caricatures.

Regardless, it is clear that these participants understand that they should treat players with an

open mind, and that while it is exciting to learn about other players, primarily what countries

they are from, that should not dictate how they will be treated. Participants actually displayed

curiosity when talking to people from different countries and learning in what ways they were

similar or different.

A few participants that were able to connect how their in-game interactions have helped

them be more empathetic towards others of different cultural backgrounds in real life. Luno's

response encapsulated the phases of "adaptation" and "integration" when talking about how his

perceptions of people from different political backgrounds have developed to become more

empathetic as a result of his in-game discussions with clanmates and other players.

Luno: Well, not as much from foreigners, but people with different political backgrounds,

like conservative or liberal, I think that it did change who I am in those spaces. For

example, when I see someone with an opinion that I don't agree with, now I think well

maybe they have a reason. Maybe they're not stupid, maybe they have a reason for

thinking like that. I should respect that. People who have different opinions than me, that

doesn't make them different people. They can still be good people, just because they have

different opinions. [It] doesn't mean that they are bad people or that we can't be friends...

Whenever I approach someone that I know has widely different opinions, now I know

that I shouldn't be arrogant because my opinions are better. I think I used to be a little

arrogant in that regard when I was younger. I think realizing, over the course of the last

few years, through talking to people through games, people with different ideologies...

really it's no opinion is completely right.

Some participants claimed that it was actually the way they interacted with others in real life that

dictated how they treated others in the game. Most players deemed themselves to be decent

people, and others have also experienced being treated negatively because of their cultural

identities which promulgated their kind approach to others. In the case of Mass, his approach to

making friends with people in the game was adapted from his real-life methods.

Mass: In my case, it is the other way around. When I started playing *Warframe*, I didn't

have anyone to instruct me, and anyone to play with... so I just talked to everyone [in-

game] the way I talked to everyone in real life. I'd say "hi" to random people in pubs.

This is the thing that works really well in *Warframe* – I was surprised that not a lot of

people do this – whenever you ask for a price check or trade for something, I always say

"thanks, have good day" or "I hope [unintelligible]-Jesus blesses you" or whatever, and

like some people are genuinely surprised by that. But yeah, I think how I interact in

Warframe is shaped by how I interact outside of the game.

Participants declared that their in-game interactions did not have much impact on how they

interacted with people from similar backgrounds in real life, with the exception of a couple

players. Most players pointed out that it was due to their personal beliefs and character of

naturally being kind and open-minded that influenced how they would interact and treat other

players in the game. However, this idea of how in-game interactions might impact real-world

interactions is something most players do not tend to think about when playing. This makes some

sense in regards to how *Warframe* itself is its own world with its own cultural norms, and since

there is so much to do in that game world, the last thing on players' minds is how their

experiences might be changing them.

Disclosure of players' personal identities

Participants often shared that the information they disclosed about themselves tended to

fall into the macro-level cultural identity structures including national culture and group culture.

Most of the information appeared to be shared in passing in a conversation with other players in

the chat. The reason for disclosing this kind of information was that it would not automatically

link back to their real-life identities, and mostly because the information served practical

purposes such as finding out about time zones, setting up trades, or the reason for poor internet

connection.

> **Dread**: I believe I've shared my nationality with a couple of people as well as having
>
> mentioned a couple of these things within the clan general chat. It's not something I
>
> remember vividly, mostly because it's not something I see as a particularly big deal. Like,
>
> I don't think much of the people know my name or my nationality. So it's not something
>
> I remember vastly, but it has happened yes... because it's relevant to the conversation or
>
> because the other party wishes to know. Typically, because it's relevant to the
>
> conversation.

Sharing of one's identity was described by participants to also be used to help build comradery

amongst players. Just as Ember had related to one of her clanmates in regards to dealing with

anxiety, Mass related to other players who were college students like him.

> **Mass**: Well, okay in public matchmaking – this happened recently too. I was playing on
>
> Hydron with a bunch of randoms [and] this one guy was like "I can only make it to wave
>
> fifteen. I have an exam tomorrow" and it started from there. [I asked] "college or high

school?" He said "uni" and I was like "oh that's okay, I have a paper too mayyyyn." "Oh

you're in university too?" "Yeah." The way I look at it, or most people look at it, you tell

someone you're in university, that doesn't really do much harm. That's not damaging

information. It is community-based. It starts off in small bits with things you're

comfortable sharing regardless of whether you think it's a safe space or not.

The information shared with other players provides some image of the personalities and

characters of each other without having to divulge information that could be directly connected

back to their real-life identities. In that sense, while the disclosure is largely macro-level, players

shared their attempts to connect and relate with one other through group identities.

Disclosure of more personal-related information to participants' identities were rarely

mentioned. Even players like Kinder, who has recently started dating someone he met through

Warframe, does not know too many personal things about his significant other. This highlights

the possible factor that disclosure of more individual-level identity can occur, but that it takes

time. Box, a clan leader, recounts having a vent session with one of his clan mates about the

situation of his wife's health.

> **Box**: One of the members of my clan is a male nurse, and so I chose to tell him about my
>
> wife going through chemotherapy because I knew that he was familiar with that sort of
>
> stuff. It was good to talk to him. Basically just talking about it; just to get it out. Like I
>
> didn't tell them that right way. He's been in my clan for like a year.

Over time, trust seemed to be a factor that was mentioned for the reasoning of why certain

participants disclosed such personal information. Valkyr states that although most of his

Warframe friends are from his university, he also has shared things about himself to friends that

he's only known online. His reasoning is how a majority of the participants responded:

> **Valkyr**: If I have fun with them, and I feel that they are trustworthy enough. I tend to only give my information to very close people I know, and I trust them enough to not share it to other without my permission.

It was also interesting to note that for the participants who did disclose things about their personal identity, they were also willing to disclose personal things about themselves when in a one-on-one discussion.

> **Wander**: I mean usually when I talk to people it's either through whispers, especially with this real-life stuff, I would talk through whispers, not an open party or Discord with other people because I don't want to make other people uncomfortable by talking about real-life stuff.

Perhaps participants have shared similar experiences to Wander, but may have not wanted to disclose it with me – a stranger whom they have only talked to once through email before actually hearing my voice. Despite the disclosure of things that are more personal to the participants, often most of the friends they have made online do not even know their real names. There is disclosure of the individual identities of participants, again, without having to divulge information that will jeopardize their real-life identities. However, the time a player has known someone and the conditions in which the information is shared needs to be considered.

Of all of the participants interviewed, only one of them was female. Less than ten-percent of those who responded with interest to be part of the study were female. Of that ten-percent, there was only one definite response, and three lukewarm responses that ended up being a null one. Ember has achieved the highest in-game rank possible and is one of the players who is part of the "pay it forward" tradition of *Warframe*. However, it is Ember states that it is because of her female gender that affected how other people interacted with her in the game.

Ember: I've actually been harassed a lot for being a girl. I had to change my in-game

name twice because two guys got "stalker-y." They're all blocked now, but my first

Warframe name was like the same name I used to use everywhere. So I guess, one guy

got a little obsessed. [I] told him I wasn't interested, but he kept messaging me, and

messaging me. Then, when I blocked him, he went and tracked every single other

account I had on the Internet including my work Skype while I was at work and started

spamming me while I was at work. It was like a game of Whack-a-mole with all the

blocking I had to do.

Although no authorities were involved, Ember has updated her security settings on all of her

online accounts, and actually had to change her game name twice. Ember has not experienced

anger or hostility from other male players towards her being a girl, but because she used to

primarily use audio chat to communicate in the game, once male players realized she was female,

they often approached her as if she was not knowledgeable about the game despite her being a

high-level player.

Ember: Usually they start trying to explain something, as weird as that sounds. I'm MR-

25 (master rank 25) now and I get into missions with all MR ranks. We'll be talking

about something, and they're just like "if you don't know what that is, let me explain it"

even though – like how long have I been playing this game you guys? I know what a

blessing trinity is, thank you. I guess it's not that bad, it just feels kind of condescending.

Ember claims she always has some witty comebacks just in case some other male player feels the

need to "mansplain" to her in-game. When the rest of the male-majority of participants were

asked about whether they have played with females, and if so, did they notice any difference in

the way they were being treated in-game, most of them stated that they may have played with

females but were not sure as they often used text chat to communicate. When they were aware that they were playing with females, they declared that knowing their gender did not change how they were being treated in-game. However, Luno recalls how quickly one of his male colleagues changed in demeanor when he realized a female was in their group during a mission.

> **Luno**: Once, I think it was on Plains of Eidolon. We were completing a bounty, and we decided to go fishing. Everyone took out their spear and everyone was having an afternoon fishing and talking and there was... no, only one of us was female. There was this guy, but once he heard – he was a little bit salty for several things that happened during the bounty we were completing – and at the moment he heard there was a woman inside the team he just changed! He was so kind and respectful, and it was really weird, but it was a good afternoon. But I found that funny.

This approach seems more mild and at the surface appears to be full of good intent, but it still comes from the same place where male players felt the need to explain game concepts to Ember. This place involves the idea that women are not as capable as men in playing and being successful in video games. Disclosure of the players' identities are often kept at the macro-level, and seldom about one's individual identity after knowing certain players for a certain span of time. The unique experience of being treated differently, or even being harassed for being a female in the game *Warframe* is not conclusive as only one female was interviewed. However, her experience is supported by literature that has shown how women are treated as inferior in video games (Gray, 2012; Fox & Tang, 2013; Ivory et al., 2014).

CHAPTER 5: DISCUSSION

It appears evident from the participants' stories that the environment of *Warframe* promotes cultural tolerance and empathy, and it is also because of this environment that the empathetic behavior players enacted appeared to be second nature. In answering the overarching research question in regards to how players perceive their social interactions in-game to contribute to the development of their intercultural competence (RQ1), the qualitative results overall show that even though players did not believe that intercultural competence was a consequence of their social interactions in-game, they enacted the skills of intercultural sensitivity and empathy. Players have added meaning to the game that may have gone beyond the intentions of game designers, with a community of players enacting "pay-it-forward" actions to other players, which is reflective of extrinsic play (Ang et al., 2010). Contradictory to players' not considering *Warframe* to serve as an environment to learn meaningful things about the cultures of the other players, participants still made an attempt to connect with those they were playing with and were able to elicit some intercultural competence skills in their in-game interactions.

The anonymity of Internet could be the driving force for why players were willing to disclose any details about themselves and to question other players about their own identities. This very same environment allowed them to safely practice encounters with people from different backgrounds (Ang et al., 2007; Bachen et al., 2012; Fowler & Pusch, 2010; Bucker & Korzilius, 2015). These encounters appeared to be more common in endless wave-type missions, where stronger social ties may have developed through the shared experiences players had with each other for hours on end. There were a few players who were able to make connections between their in-game and real-life interactions. It seemed that these participants were extremely

sociable players, wanting to get to know who they were playing with, and they often thought about the cultural backgrounds of other players in the game. The open conversation players had about themselves were subject to limitations in that they would only disclose things that would not jeopardize their real-life identities.

The limited interactions participants had with other players appears to be related to their superficial understandings of the cultural backgrounds of other players. The limited understandings of other players is reflective of how the "touch-and-go" model of in-game missions relate to low social interaction (Eklund & Johansson, 2010). When participants learned about the cultural backgrounds of their counterparts, most of that information was said in passing and it appeared to just became an attachment to those players rather than something that changed their mindsets about the outgroup they represented in response to how their in-game interactions with outgroup members related to their understanding of that outgroup (RQ1a). This resonates back to game studies scholars and their findings amongst video gamers viewing the the video game environment as a space to disclose their ideas, because they have agency in choosing what and how to disclose them (Pena & Hancock, 2006; Griffiths et al., 2011; Molyneux et al., 2015). This would explain how players' thoughts and characteristics shine through and their identifiers (e.g. gender, nationality, religion) fall in the background.

Interestingly, participants that claimed no relationship between their in-game and real-life interactions also exemplified intercultural sensitivity in that they did not use the interactions they had with people from varying cultural backgrounds in-game as a basis to generalize people from the same or similar backgrounds. Collectively, participants' response to how their in-game experiences related to their intercultural sensitivity (RQ1c) was that although they were aware of stereotypes and prejudices of certain backgrounds, they would attempt to treat everyone with the

same openness, determined to not let those mindsets hinder a positive experience with one

another in the game. Whether players already had intercultural sensitivity skills prior to their

involvement in this game, it was apparent that their interactions in the game fostered this trait.

This response to how their understandings shaped how they interacted with outgroup members in

the real world (RQ1b) indicate that these players are able to discern between cultures without

assigning value (Bennett, 2004).

Empathy and acceptance of people from varying backgrounds was evident in the players'

experiences, but players could not connect their in-game interactions to their intercultural

empathy towards people from different cultural backgrounds (RQ1d). Initially participants did

not consider themselves to be interculturally empathetic or competent, yet their actions speak

otherwise. Many of these participants have shown both the cognitive and affective dimensions of

intercultural competence in that they are open to other perspectives and appeared to effectively

interact with others despite not knowing what they were (Williams; 2009; Leung et al., 2014).

This may be due to, again, the helping nature of the players that had already existed paired with a

game environment that incentivizes assisting others in completing in-game objectives and quests.

Although participants did not specify how they became empathetic worldview was not the only

perspective.

Theoretical Implications

This qualitative study extends the use of the frameworks of the contact hypothesis and

social constructivism when people from different cultural backgrounds interact with one another,

but in a virtual environment. The contact hypothesis is applicable to players' experiences with

people from different cultural backgrounds. However, the results indicate that these interactions

made minimal impact on changing any preconceptions or mindsets originally had about the

backgrounds they represented. This is not to say that participants continued to have prejudices, as many claimed they did not have any negative perceptions because they were often starting with no expectations or prejudices. They often had no prior knowledge of the macro-level cultural identities of the people they played with (e.g. country, ethnicity), but sometimes were able to connect through group-level identities (e.g. being a college student).

In regards to what players learned about each other through social interactions in the game most of the cultural identity-sharing among players was limited to macro-level (e.g. one's country) and group-level (e.g. student). Very seldom did people talk about disclosing of their religious, or political beliefs, even more so even fewer players discussed things personally connected to them. As social constructivism posits, new knowledge obtained by these players about other cultural backgrounds are understood from their interpretations of the information shared (Vygotsky, 1978). Most players interpreted people from different cultural backgrounds to be similar to them, and any information that did change their perspective still remained surface level. The motivations of players to share information related to themselves were both extrinsic and intrinsic (Berger & Luckmann, 1966; Vygotsky, 1978). Players often shared which country they were from primarily for practical reasons such as figuring out time zones to connectivity issues. Players that enjoyed *Warframe* because of its social component were more intrinsically driven to want to make meaningful connections with players and develop deeper understandings of the people they played with.

It was interesting to note that people shared things about *who* they are, rather than *what* they are when interacting with other players. The stories shared by these participants suggest that while they initially started off with sharing what countries they were from, most of their conversations related to their life experiences, what their interests were, and their opinions on

different issues. The sharing of their cultural identities came after these conversations, and this sharing did not appear to impact the worldviews of the participants. Most participants declared having a few good friends that they met through the game, and some even exclaimed they could be best friends with them, yet their friends never knew what their real names were. It seems the personalities and essences of the characters of these players are shared in the game as opposed to in real-life where individuals start off with identifying information such as their names, then followed by their essence.

Finally, this paper contributes to both the field of game studies and intercultural communication research in better understanding how virtual environments relate to the development of intercultural competence. Looking at the frameworks used in this study, scholars in both game studies and intercultural communication research might be able to see which virtual environments are more suitable for promoting cultural tolerance and intercultural empathy. Contrary to the common negative experiences of many players in online games (Nakamura, 2009; Gray, 2012; Deskins, 2013; Behm-Morawitz et al., 2016; Behm-Morawitz, 2016), this community appears to be extremely positive with many safeguards set up informally, by the participants themselves or the community moderators, to squash any negative behavior. In the case of *Warframe*, the cooperative environment may have promulgated these behaviors. Participants have been part of other online gaming communities where they had negative experiences and shared that the *Warframe* community was paramount in regards to the positivity of existing players to new and returning players. Perhaps *Warframe* is the safe haven of gaming where players might be able to enjoy the game and each other. This research might also help game designers better understand what social components are effective or ineffective at getting players to interact with one another.

Practical Implications

While the intent of this study was to provide scholars insight into how players' intercultural competence might be shaped through social interactions in virtual environments, specifically in video games, it seems this would also be beneficial to game designers like Digital Extremes (DE), to gain better insight into how their social features, namely the clans in *Warframe*, are being utilized and whether the ways they are being utilized meet the goals they intended for that feature.

It seems the bulk of the in-game conversations among players were task-oriented, which was supported by Ducheneaut and Moore (2004). However, the few that were socioemotional were positive and very few players experienced anything negative within the game. It makes sense that the majority of the in-game conversations were task-oriented, especially in this game where there is a whole new world and culture that players needed to learn about, but did not have the in-game means to understand it. This learning curve however, has created a phenomenon amongst the community of *Warframe* players in being extremely supportive and positive.

While the learning curve is one of the criticisms of the game, this has resulted in players acting prosocially through helping other players. It is rather interesting to see veteran players helping newcomers with understanding the game either by contributing a large portion of their time leveling them up as quickly as possible, or providing players with items at steep discounts. However, it seems that by guiding players to do things without explaining the reasoning why could contribute to that steep learning curve. Regardless, this lack of direction in the game that has resulted in players relying on other players for guidance could be something DE could capitalize on to further strengthening social ties in-game, should that be their objective. This

model could also help out other game developers who have or plan to create free-to-play games

to attract or foster a loyal following or community.

CHAPTER 6: CONCLUSION

As society increasingly becomes more interconnected via the Internet, it remains important to understand how people's interactions with each other in virtual environments help in the social constructions and perceptions of cultures. This study explored how players might perceive their interactions with other players in contributing to their intercultural competence. These interactions can either magnify distorted perceptions or change them and the hope is for the latter interaction to happen for the better. The results of this study have shown that while participants are not actively thinking about how they connect, they have enacted both intercultural empathy and intercultural sensitivity in their interactions with other players in the game. An unexpected, but overwhelming finding was that the *Warframe* community is built on collective positive, but short-lived, interactions of players helping other players. As a result of this study it is recommended that game designers be more conscientious about facilitating social components in the development of online games in order to facilitate more socialization in the game. This not only allows for more venues for players to interact with each other, but it is a way that game companies can capitalize on these social interactions.

Limitations

It is important to keep in mind that this study was meant to explore the phenomenon of how video games players perceived their in-game interactions to contribute to their intercultural competences. While this study provided rich data into the different kinds of interactions and relationships formed within the virtual environment of video games there were limitations. The populations was limited to players of the video game *Warframe*, which is a third-person shooter and the environment was mainly PvE. There are different genres of online games with different gaming environments so the experiences of these players may be specific to this game genre or

this game in particular. Furthermore, the findings from this qualitative study may not be reflective of the general population of *Warframe* players. Of the participants, an overwhelming majority were male and very few of the players played on consoles. It is not quite clear what role gender played in these in-game interactions as the sole female participant provided a contrast experience to her counter male participants. My role as a female research might have also impacted how my male participants answered when I probed them about gender. Having more females participate in the study may have provided more insight into how their gender might have played a role in their in-game interactions, and perhaps the characteristics of online communities differed depending on whether it was on PC or console.

Future Research

Future studies should include more diverse recruitment pools, definitely including more female players, and players from different consoles as well in future studies of this game. This might provide a different picture of the kinds of interactions that take place, and the communities formed in regards to gender or the platform being played on. Perhaps more purposive sampling of players of this game will be to specifically gain insight from players who are active community members and like the social aspect of the game. This might add the component of motivations for playing the game as it relates to making meaningful connections between players. Engaging in participant observation for future studies might better help build rapport with future participants and might allow for more detailed and deeper-level stories. Other studies to further examine how intercultural competence might be shaped as a result of interactions via virtual environments could be studied in other game genres or other online communities that are specifically catered towards people socializing through their avatars.

Finally, in the context of building more meaningful connections across different cultural backgrounds, intercultural scholars should consider further examining how interactions in online environments might shape individuals' intercultural competence. This further examination could lead to building online intercultural training modules that simulate these online social environments where trainees can interact with each other. This new development of modeling online environments might be useful for continually training workers while they are abroad, and it could lower the costs of intercultural training for international organizations.

Appendix A

Sample of Solicitation Text

Hello, fellow space ninjas! I'm currently a graduate student at the University of Hawai'i at Mānoa. As part of my graduation requirements, I am required to conduct a research project. I am interested in researching social interactions inside of Warframe! If you would like to participate Tenno, please fill out this short preliminary survey: http://bit.ly/uhmwarframestudy. If you have any questions, feel free to email me at uhmwarframestudy@gmail.com.

Appendix B

Sample of Promotional Flyer

Appendix C

Preliminary Online Survey

Nickname (i.e. Rich, Froggy, etc.)

Email address (This is where we will contact you. Make sure emails from uhmwarframestudy@gmail.com are not in your spam folder):

Name of country you currently reside in:

Are you at least 18 years old?

○ Yes
○ No

Next >>

Age

Gender

- ○ Male
- ○ Female
- ○ Prefer not to say
- ○ Other (please specify):

<< Back   Next >>

What platform(s) do you play Warframe on? (select all that apply)

☐ PlayStation 4
☐ XBox One
☐ PC

Have you played Warframe for at least 3 months?

○ Yes
○ No

How long have you played Warframe? (i.e. 3 months, 2 years, etc.)

How do you communicate with others on Warframe? (select all that apply)

☐ Audio Chat
☐ Text Chat
☐ None
☐ Other (please specify):

Appendix D

Interview Guide Questions

1. Can you share a story of a time where you had a **positive experience** with other players in *Warframe*?
   a. What made it positive?
2. Can you share a story of time where you had a **negative experience** with other players in *Warframe*?
   a. What made it negative?
   b. In hindsight, how would you have handled that experience differently?
3. Can you talk about an experience where **you disclosed your personal identity** to people you were playing with?
   a. Why did you choose to disclose?
4. Can you talk about an experience where **another player disclosed their personal identity** to you?
   a. Why did they choose to disclose?
5. Can you share one experience where you **played with someone from a different cultural background** than yours?
   a. How did you learn about their cultural background?
   b. Did you learn anything about them?
   c. What preconceptions did you originally have about that culture?
   d. Did that experience change any preconceptions or mindsets you originally had about that culture?
6. In what ways do you think your experiences in this game have shaped your understanding of players from different backgrounds?
7. How do you think your experiences in interacting with players of different cultural backgrounds in *Warframe* have shaped how you interact with people from similar backgrounds in real life?

Appendix E

Consent Form (verbiage on the online consent form)

University of Hawaiʻi
Consent to Participate in Research Project
Rebecca Carino, Student Researcher
Project Title: Examining the effects of In-game Social Interactions in *Warframe*

Aloha! My name is Rebecca Carino and you are invited to take part in a research study. I am a graduate student at the University of Hawaiʻi at Mānoa in the School of Communication. As part of the requirements for earning my graduate degree, I am doing a research project. The purpose of my project is to examine the effects of in-game social interactions in the video game *Warframe*. I am asking you to participate because you have expressed interest in being a part of the study.

Activities and Time Commitment: If you participate in this project, I will set up an interview time which will be conducted online via a chat website. The interview will consist of 7 open-ended questions, and will take an hour to complete. Interview questions will include questions like, "Can you talk about an experience where you disclosed your personal identity to people you were playing with?" and "Can you share one experience where you played with someone from a different cultural background than yours?"

Only you and I will be present during the interview. With your permission, I will audio-record the interview so that I can later transcribe the interview and analyze the responses. You will be one of about 15 people I will interview for this study.

Benefits and Risks: There will be no direct benefit to you for participating in this interview. The results of this project may help build upon current research in respect to the social aspects of gaming. I believe there is little risk to you for participating in this research project. You may become stressed or uncomfortable answering any of the interview questions or discussing topics with me during the interview. If you do become stressed or uncomfortable, you can skip the question or take a break. You can also stop the interview or you can withdraw from the project altogether.

Privacy and Confidentiality: I will keep all study data secure in an encrypted hard drive on a password protected computer. Only my University of Hawaiʻi advisor and I will have access to the information. Other agencies that have legal permission have the right to review research records. The University of Hawaiʻi Human Studies Program has the right to review research records for this study.

After I write a copy of the interviews, I will erase or destroy the audio-recordings. When I report the results of my research project, I will not use your name. I will not use any other personal identifying information that can identify you. I will use pseudonyms (fake names) and report my findings in a way that protects your privacy and confidentiality to the extent allowed by law. I also will no longer contact you once the interview has ended.

Voluntary Participation: Your participation in this project is completely voluntary. You may stop participating at any time. If you stop participating in the study, there will be no penalty or loss to you. Your choice to participate or not participate will not affect any future relationships with the University of Hawaiʻi at Mānoa.

Compensation:
You will not receive compensation for participating in this study.

Questions: If you have any questions about this study, please email me at rtcarino@hawaii.edu. You may also contact my advisor, Dr. Jenifer Winter, at jwinter@hawaii.edu. You may contact the UH Human Studies Program at (808) 956-5007 or uhirb@hawaii.edu. to discuss problems, concerns and questions; obtain information; or offer input with an informed individual who is unaffiliated with the specific research protocol.

Please visit https://www,hawaii.edu/researchcompliance/information-research-participants for more information on your rights as a research participant.

By clicking the "I consent" below and entering the following information, I confirm that I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement, and possible risks have been explained to my satisfaction. I understand that I can discontinue participation at any time. My consent also indicates that I am at least 18 years of age. [You will receive a copy of your responses in your email].

Please enter the following information:

Full Name: _____

Identification number that was emailed to you: _____

☐ I consent
☐ I do not consent

Signature: _____

Appendix F

Demographic Results of Screening Survey

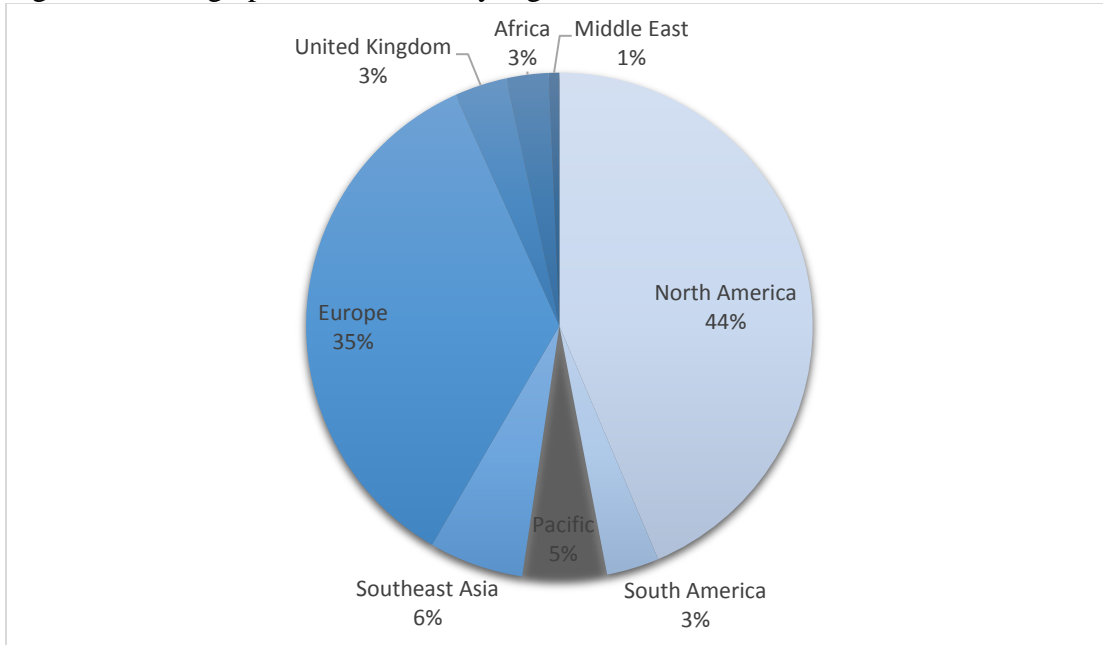Figure 1. Demographic breakdown by region:

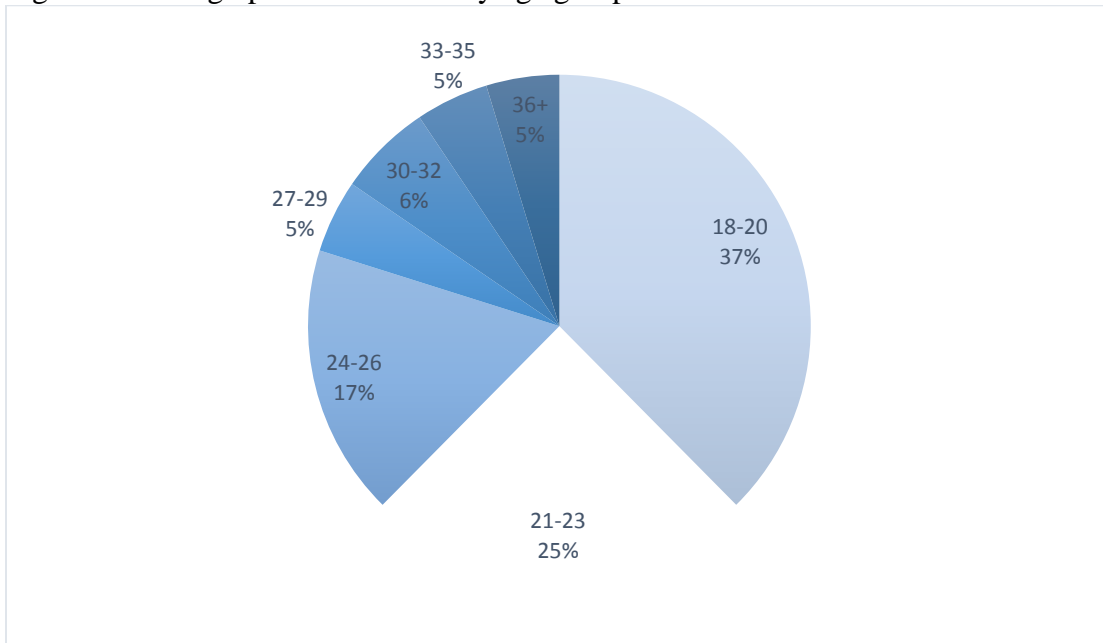Figure 2. Demographic breakdown by age group:

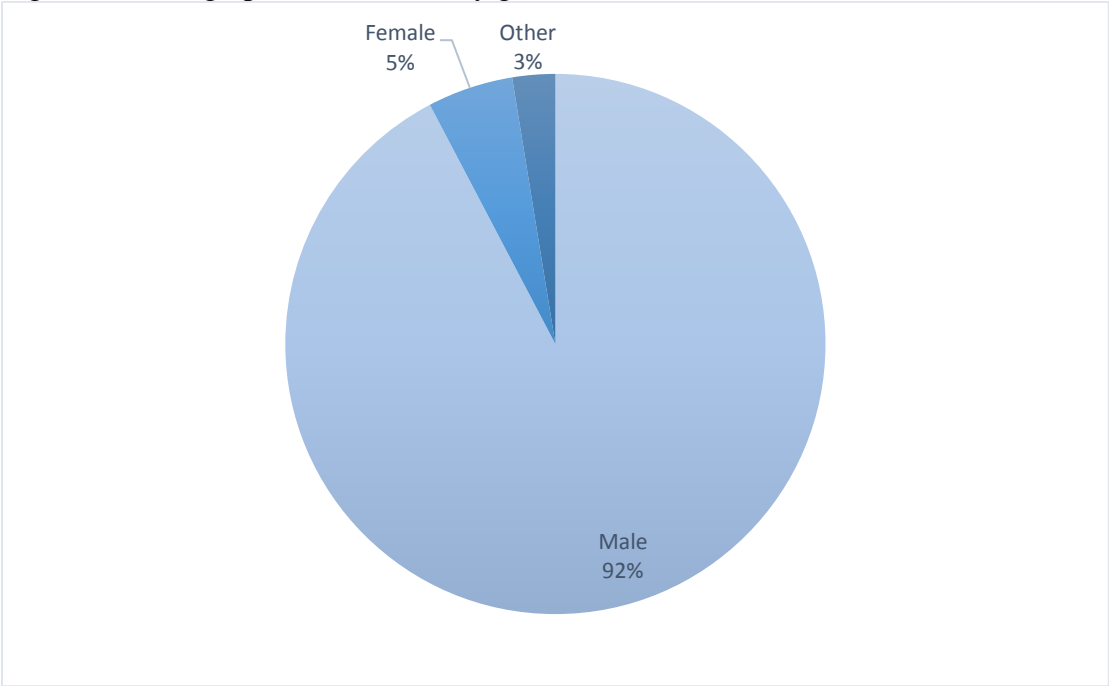Figure 3. Demographic breakdown by gender:
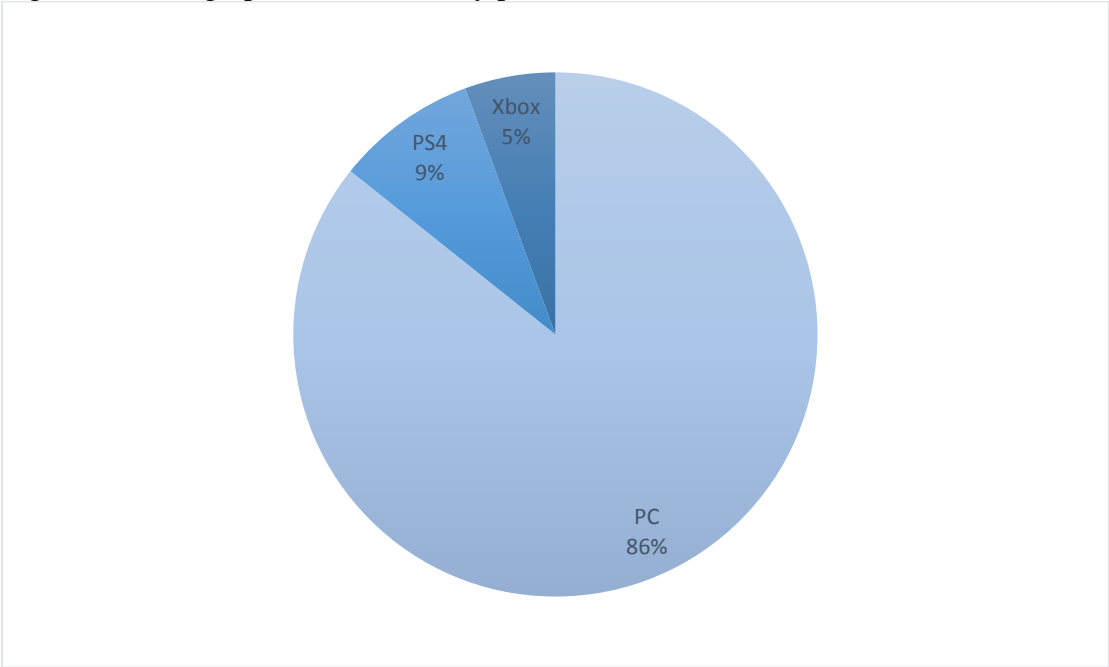

Figure 4. Demographic breakdown by platform:
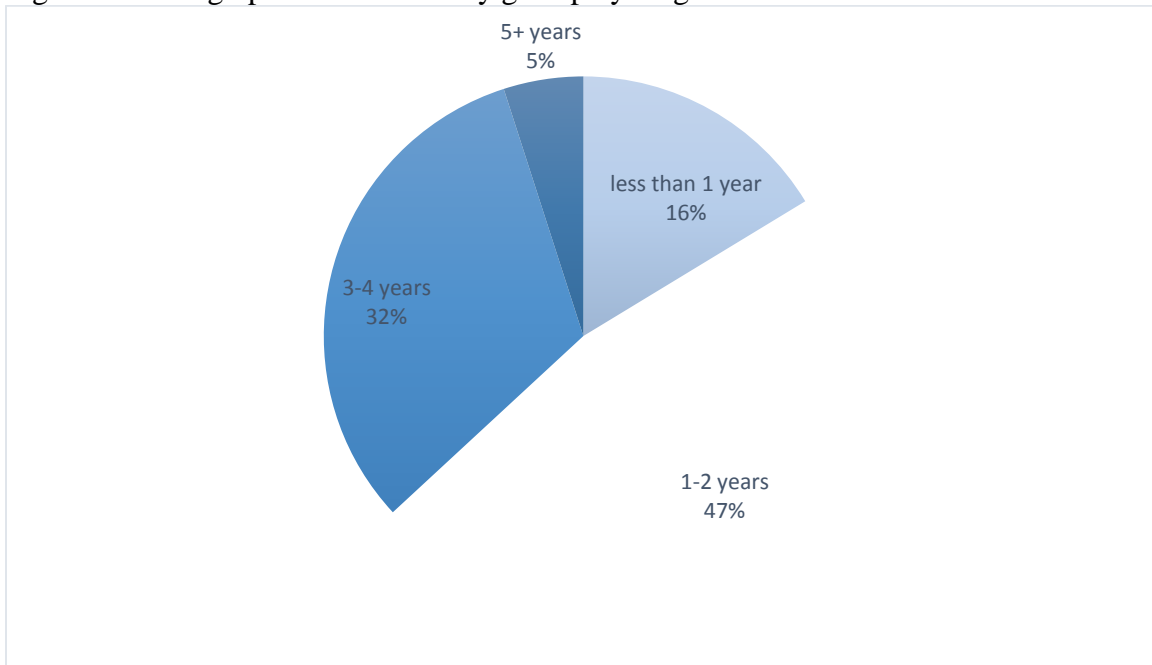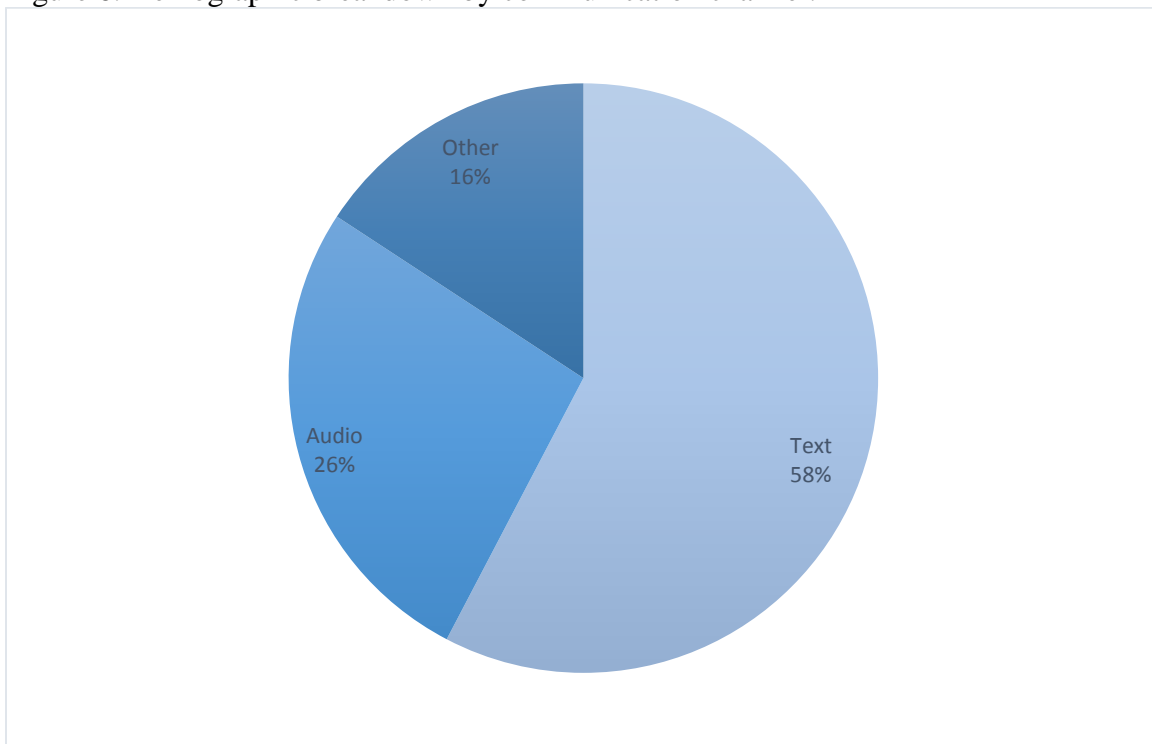
Figure 5. Demographic breakdown by gameplay length:

Figure 6. Demographic breakdown by communication channel:

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