UC Irvine
UC Irvine Electronic Theses and Dissertations

Title
L2 Spanish Learning via World of Warcraft

Permalink
https://escholarship.org/uc/item/97r1z105

Author
Rama, Paul Sevuki

Publication Date
2014

Peer reviewed|Thesis/dissertation

UNIVERSITY OF CALIFORNIA,
IRVINE

L2 Spanish Learning via World of Warcraft

DISSERTATION

submitted in partial satisfaction of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in Education

by

Paul Sevuki Rama

Dissertation Committee:
Professor Mark Warschauer, Chair
Professor Robert Blake
Professor Glenn Levine

2014

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACKNOWLEDGMENTS

CURRICULUM VITAE

PAUL S. RAMA

Dec. 2014   Ph.D. in Education
                   Specialization in Language, Literacy, and Technology
                   University of California Irvine
                   Advisor: Mark Warschauer

June 2008   M.A. Spanish
                   California State University-Long Beach

September   Spanish Instructor, Chapman University, Orange, CA
2007- April
2008

January 2007-   Spanish Teacher, St. Lawrence Martyr School, Redondo Beach, CA
June 2008

April 2006-   Spanish Teaching Associate Consultant
June 2007   California State University Long Beach

January 2006-   Spanish Teaching Associate
June 2006   California State University Long Beach

September   Hawaiian History/Spanish Teacher,
2004- June   Mililani High School, Mililani, HI
2005

June 2004   B.A. Interdisciplinary Studies: Spanish/TESOL, Art Minor
                   Brigham Young University-Hawaii, Laie, HI

FIELD OF STUDY

Computer-assisted Language Learning; Educational Technology; Second Language
Acquisition; Reading Comprehension

PUBLICATIONS

Rama, P., Black, R. W., van Es, E., & Warschauer, M. (2012). Affordances for second language learning in World of Warcraft. *ReCALL*, 24, pp 322338doi:10.1017/S0958344012000171

Hansen, L., Lam, K., Orikasa, L., Rama, P., Schwaller, G., & Miller, R. (2012). In the beginning was the word. *Second Language Acquisition Abroad: The LDS Missionary Experience (Studies in Bilingualism)*. John Benjamins.

Rama, P. (2012). Review of Language and Learning in the Digital Age. *Language Learning & Technology*, *16*(1), 30–33.

ABSTRACT OF THE DISSERTATION

L2 Spanish Learning via World of Warcraft

By

Paul Sevuki Rama

Doctor of Philosophy in Education

University of California, Irvine, 2014

Professor Mark Warschauer, Chair

This dissertation examines college-age Spanish learners' experiences participating in the Spanish language version of the massively multi-player online game World of Warcraft (WoW). A two-study design is used, first examining play from volunteer participants, and then incorporating WoW into a 1-credit Spanish course. The experiences of 5 key representative participants are reported here. Using data culled from participant observation, interviews, logs of in-game chat, student journal entries, and course activities, I describe how MMOGs like WoW create affordances for language learning. Specifically, address how the virtual environment (game features) of MMOGs like WoW mediate language learning, how social interaction with other players in WoW affects language learning, and how L2 Spanish proficiency and MMOG gaming proficiency shape the language learning experience.

CHAPTER 1: INTRODUCTION

Background

Language instructors have long sought to leverage advances in technology for second language (L2) learning (Warschauer, 1996; 1997). Among new technologies, video games and virtual worlds are seen as offering especially rich potential for providing language development opportunities (see, e.g., Gee 2007). Research to date on the use of virtual environments and online games in language learning has found benefits ranging from increased student motivation and engagement (Sykes, Oskoz, & Thorne, 2008; Thorne, Black, & Sykes, 2009; Zheng, Young, Wagner & Brewer, 2009), to enhanced vocabulary use (Bytheway, 2011; Rankin, Morrison, McNeal, Gooch, & Shute, 2009), to expanded opportunities for intercultural communication (Thorne, 2008).

In recent years, massively multiplayer online games (MMOGs) have gained particular attention among language acquisition researchers (see, e.g., Bytheway, 2011; Purushotma, 2005; Rankin, Gold & Gooch, 2006; Rankin, Morrison, McNeal, Gooch & Shute, 2009; Thorne, 2008; Zhao & Lai, 2009). MMOGs are immersive, graphically-rich 3D environments in which many players from geographically distinct locations can navigate the game space and interact via digital characters known as avatars, thus offering the opportunity for a great deal of informal, contextualized interaction in a learner's target language, including interaction with native speakers. This sort of play and interaction are seen as potentially beneficial for language development. To explore this potential, I apply a sociocultural lens (Vygotsky, 1978) examining how mediation and social interaction in *World of Warcraft* (WoW) promote language development. I conducted a two-study, three-iteration examination of WoW, implementing greater degrees of integration from one iteration to the next, in university-level Spanish courses.

1

The first study examines WoW used as an extra-curricular environment for language practice and play. Studies two and three explore WoW as an integrated part of a 1-credit Spanish writing course. The guiding questions for all three studies are:

1. How and in what ways does the virtual environment (game features) of MMOGs like WoW mediate language learning?
2. How and in what ways does social interaction with other players in WoW affect language learning?
3. How does L2 Spanish *language proficiency* and *MMOG gaming* proficiency shape the language learning experience?

Significance

This research will make theoretical and applied contributions to the field of SLA. In the realm of theory, it will be of interest to scholars who are investigating second language learning, online language learning, and the potential role of virtual environments and MMOGs in language learning. Language educators, game developers, and policy makers interested in the potential of MMOGs as tools for second language practice and socialization will also benefit from the contents of this research.

CHAPTER 2: CONCEPTUAL FRAMEWORK

Sociocultural Theory and Second Language Acquisition

This dissertation is guided by sociocultural theory, which is complementary to interactionist views of learning, and has been applied in previous CALL studies. First an account of sociocultural theory is related here, followed by an examination of key benefits of CALL, and finally a review of the body of research on MMOGs as a form of CALL.

Sociocultural theory (SCT) used here has its roots in Vygostky's (1978) theories of psychological development. In his work, Vygotsky describes human mental activity as culturally and historically mediated. Generally speaking, Vygotsky's theories of learning focus on understanding how pieces relate to the greater whole, understanding that the whole is dependent upon the individual pieces for development, whether these are societal, historical, cultural, individual, or any number of other factors. Vygotsky's work has spawned related theories such as activity theory, cultural-historical activity theory, and sociocultural theory, which is the favored framework used here.

SLA researchers have used Vygotsky-inspired sociocultural theory as a theoretical framework for some time (for a review, see Lantolf & Beckett, 2009). Researchers interested in computer-assisted language learning (CALL) have applied sociocultural theory to understand how CALL influences language learning (Kern & Warschauer, 2000; Warschauer 1997). Warschauer (2005) describes sociocultural theory as it relates to CALL as containing three core elements: *mediation*, *social learning*, and *genetic analysis*. With regards to *mediation*, Warschauer writes, "the incorporation of tools or mediational means does not simply facilitate action that could have occurred without them, but rather, by being included in the process of behavior, alters the entire flow and structure of mental functions" (p. 1, 2). In MMOGs like

WoW, the game environment, chat channels, non-player characters, and other parts of the game mediate and transform the types of language interactions that take place in the game environment. *Social learning* describes the interplay between self and others in the learning process, which is encapsulated in the *zone of proximal development* (ZPD), or the distance between what individuals can accomplish on their own and what they are able to accomplish with assistance from others (presumably more capable others). Learning happens on two levels: the social first, followed by individual internalization. Social interaction is a key ingredient for success in MMOGs. Used for L2 Spanish learning, these interactions require language use, often within the *zone of proximal development*. The third concept, *genetic analysis,* states that understanding the origins and developmental processes of mental activity is necessary in order to understand mental activity. Within sociocultural theory, these three elements combine to further our understanding of learning in CALL environments.

In this research I apply a sociocultural approach to learning, emphasizing the contextually situated and mediated nature of mental activity. From this perspective, language development arises from the learner's interactions with other people and the social context, and is mediated by symbolic (e.g., language, image) as well as material tools and technologies. I will use a sociocultural lens to examine how mediation and social learning in the game environment of WoW create affordances for language development. WoW is chosen as the platform of study because of the theorized benefits that it presents for second language development, some of which have been found in CALL research as described below.

Computer-Assisted Language Learning

There is a long history of language instructors utilizing new technologies for improved language teaching and learning. Warschauer (1996, 2004) describes three stages in the evolution

of CALL, each influenced by the technology and dominant learning paradigm of the era: 1) Structural CALL with its focus on form, drills, and language as a skill. 2) Communicative CALL, which favors more inductive forms of learning, along with using technology more creatively (i.e., not simply transferring book exercises into digital format). 3) Integrative CALL, which is informed by sociocultural contributions of newer theories of second language acquisition. Integrative CALL remains an appropriate designation for the current era of CALL, as technology supports multimodal, socio-culturally-driven computer-mediated language learning.

Table 1

Three stages of CALL

Stage	1970s-1980: Structural CALL	1980s-1990s: Communicative CALL	21st Century: Integrative CALL
Technology	Mainframe	PCs	Multimedia and Internet
English-Teaching Paradigm	Grammar-Translation & Audio-Lingual	Communicative Language Teaching	Content-Based, ESP/EAP
View of Language	Structural (a formal structural system)	Cognitive (a mentally-constructed system)	Socio-cognitive (developed in social interaction)
Principal Use of Computers	Drill and Practice	Communicative exercises	Authentic Discourse
Principal Objective	Accuracy	Fluency	Agency

Note. Stages CALL as described by Warschauer. From "Technological Change and The Future of CALL," by M. Warschauer, 2004, *New Perspectives on CALL for Second and Foreign Language Classrooms,* p. 11. Adapted with permission.

A large number of past studies and implementations of information and communication technologies (ICTs) for CALL are based heavily on communicative approaches to language learning which place value on high amounts of target language input and output for L2 language development (Krashen, 1987; Swain, 1995). Beyond an increase in target language input and production, SLA research has described numerous other benefits of ICTs for creating

opportunities for language development. CMC has been found to create affordances for increased time spent on task, more interaction, encouraging greater democratization in production, lowering of the affective filter, greater sophistication of language, engaging in more autonomous, self-directed activity, and increasing production, to name a few benefits (Kern, 1995; Warschauer, 1996; Beauvois, 1997; Warschauer, 1997; Meskill, 1999; Pelletieri 1999; von der Emde, Schneider, & Kötter, 2001; Kitade, 2000; Blake, 2003; Warschauer, 2007). Synchronous CMC artifacts (e.g., text chat) often resemble oral communication, suggesting that students develop L2 communicative strategies used in oral conversation (Kern, 1995). An added benefit of CMC is that students can tailor learning to their needs; they can work to maintain naturally flowing oral conversation patterns, often at the cost of L2 accuracy, or slow down and focus on form (Kern, 1995). In the past decade, websites explicitly tailored towards language development have emerged (e.g., Live Mocha, hello-hello, Duolinguo), as well as sites creatively used by learners to hone second language skills (see, e.g., Black, 2006; 2008). Instant messaging and video conferencing via programs like *Skype* have also been used to foster language development (Mullen, Apple, & Shanklin, 2009).

Particularly interesting findings suggest that CMC encourages interaction and collaboration, increased willingness to communicate, and promotes negotiation of meaning (Kern, 1995; Beauvois, 1997; Warschauer, 1997; Meskill, 1999; Pelletieri, 1999; Kitade, 2000; Blake, 2000; Blake, 2003), elements deemed crucial for second language acquisition. Interaction and collaboration are of vital importance in Vygotsky-inspired sociocultural theory accounts of language learning, as ideal conditions for learning include interaction within the zone of proximal development. Much research has described the types of collaboration that take place in a variety of CMC contexts including email, discussion boards, wikis, blogs (Warschauer, 2000;

6

Ware & Kramsch, 2005) chat-rooms, video-conferencing programs (e.g., *Skype*) (Yanguas, 2010; Lewis, 2011), and 3-D environments like *Second Life*, an online virtual world featuring avatar-based social interaction (Liou, 2011; Wehnera, Gump, & Downey 2012; Jauregi, Canto, de Graaff, Koenraad, & Moonen 2012). Research has indicated that interaction and collaboration may be easier and more abundant in CMC contexts when compared to face-to-face activities (Pais Marden & Herrington, 2011; Nor, Hamat, & Embi, 2012). Second language interaction in these CMC contexts may result in increased willingness to communicate (Warschauer, 2001; Lewis, 2011).

Negotiation of meaning is an important part of second language acquisition in that learners are able to improve their developing interlanguage by noticing the gaps in their understanding, which comes about through interactions in the target language within the ZPD. Negotiation of meaning is defined as "communication in which participants' attention is focused on resolving a communication problem as opposed to communication in which there is a free-flowing exchange of ideas" (Gass, 1997, p. 107, as cited in Blake & Zyzik, 2003). Studies have found that CMC can provide opportunities for negotiation of meaning (Blake, 2000; Pelletieri, 1999; Blake & Zyzik, 2003; Yanguas, 2010).

These affordances of CMC for L2 learning are compelling reasons for the use and continued study of information and communication technologies in second language acquisition. The notion of affordance, defined as the opportunities for learning or interaction provided by a context in relation to the abilities of the learner (based on van Lier's 2000 discussion of affordances) is akin to Vygotsky's zone of proximal development, as both concepts emphasize the interplay between a learner's capabilities and the learning environment. When I discuss affordances in this research, the unit of analysis is not limited to the affordances of the

environment or an individual learner's discrete linguistic input or output, but rather the "active learner" (van Lier, 2000, p. 253) and his or her interactions within the learning context.

MMOGs like WoW present many of the affordances for learning associated with other CMC platforms while adding graphically-rich immersive environments, and engaging, socially-driven game play. As used for second language development, MMOGs are exemplary of integrative CALL. Play is not focused around learning specific forms or for purposeless communication in the target language (based on the paradigm of Communicative CALL); language facilitates the task-based collaborative game play which is a hallmark of MMOGs like WoW.

Massively Multiplayer Online Games and L2 Learning

Modern MMOGs such as WoW are persistent virtual worlds, where players interact in task-based, collaborative game play. In WoW, players choose avatars from among different archetypal classes (e.g., magic wielding mage, holy warrior paladin, etc.) and races (e.g., humans, elves, orcs, trolls, etc.) of characters and play out adventures in a fantasy setting (à laTolkien). Communication in these games takes place primarily in synchronous chat channels, while some game scenarios encourage the use of third-party voice communication software (for examples of communication in MMOGs see, Chen, 2009). MMOGs encourage cooperative play, where groups of players band together in "parties" to defeat strong enemies. Larger groups of players who share the same interests often form persistent groups (guilds), sharing knowledge and expertise with fellow guild members with whom they become socially invested.

Researchers studying MMOGs propose that these spaces afford learners opportunities to develop language and literacy skills, as players form game communities, and create and develop interpersonal relationships (Peterson, 2010; Steinkeuhler, 2007; Thorne, 2008). MMOGs are

believed to foster enjoyable, collaborative play between diverse groups of players, motivating language learners to persist in communicative activity (Nardi & Harris, 2006). Peterson (2010) identifies several advantages of MMOGs for achieving this goal. These include, "access to diverse groups of interlocutors, including native speakers; extensive opportunities for purposeful target language use in an authentic context; opportunities to engage in co-construction, negotiation, and the development of communicative competence; and development of collaborative and social relationships" (p. 432). For example, Steinkuehler's (2007) study found that during game play in the context of *Lineage II*, a well-known MMOG, players participated in a variety of language and literacy practices such as, letter writing, oral delivery of narratives and poetry, and debate. According to Steinkuehler, participation in these ways served to build interpersonal relationships and community in the on-line game space. As another example, Thorne's (2008) examination of an intercultural communicative exchange between two WoW gamers illustrates how the goal-directed nature of MMOG activity can motivate language learning. The individuals in Thorne's study were not necessarily seeking to learn a language; rather, they sought to work together to accomplish a task, which required commitment, collaboration, and communicative negotiation of meaning.

Several studies have found that participation in MMOGs can help improve learners' second language vocabulary (Bytheway, 2011; Rankin et al., 2006; Rankin, et al., 2009). For example, in Bytheway's study (2011) of Non-Native English Speakers (NNES), participants identified full immersion in the English version of WoW as particularly beneficial for their language learning because the game required active negotiation of meaning in the game world with online interactants via the target language. Rankin et al. (2006) similarly found that English

as a Second Language (ESL) students who played the game *Ever Quest 2* increased their English vocabulary skills.

It has also been hypothesized that MMOGs afford learners opportunities to build confidence and increase language experimentation. Peterson (2010) suggests that MMOGs allow for role playing and risk taking by language learners and reduce inhibition in target language interaction. Zhao and Lai (2009) explain that through anonymity in game play, players are less inhibited and more freely experiment with language to accomplish game objectives. The social relationships that are formed and strengthened through collaborative play may also be beneficial for language learning. As an example, Rankin and colleagues (2009) examined interactions between native- and non-native speakers of English in *Ever Quest 2*, finding that as non-native speakers increased their comfort level with online interactants, they produced more chat in the game and acquired more vocabulary.

Affinity Spaces

A common thread throughout the literature is that MMOGs encourage experimentation and interaction among players. Through the course of activity in MMOGs, players form interpersonal relationships based on shared interests. Gee (2004) describes this coalescing of individuals around a shared interest as an *affinity space*. Gee outlines the criteria that define affinity spaces, many of which are abundantly found in video games. These include shared interest, distributed knowledge, nondiscriminatory affiliations between players (of different skill levels, linguistic background, races, gender, and socioeconomic status), and multiple routes for meaningful participation. MMOGs like WoW are affinity spaces that, through the aforementioned features, have the potential to facilitate L2 development in ways that may complement and extend the learning that goes on in language classrooms.

In summary, research suggests that MMOGs may offer a range of affordances for L2 learning due to the engaging communicative contexts of these environments. Play in these worlds requires collaborative interaction, which in turn is mediated by meaningful target language use. From a sociocultural perspective, these interactions, often with more capable others, may provide opportunities for learners to build on their existing competencies in a supportive and engaging context. MMOGs as a form of CALL is an emergent area of SLA research, with more studies needed to further establish and expand upon the findings reported in the research to date. Additionally, no studies have been done comparing how players develop second language skills in MMOGs in different contexts of use. The design of this dissertation research examines learner interaction and language development along a continuum of learner-directed play and curriculum-guided play. This research explores MMOG use in a L2 Spanish curriculum with different levels of integration, first examining play as an extracurricular activity, then as play becomes the focal point of a low-stakes 1-credit course.

CHAPTER 3: METHODOLOGY

Research Methods

To best investigate how WoW can promote second language Spanish development, a mixed methods approach is applied in this research, though the majority of data is analyzed using qualitative methods. Using a mixed methods approach allows for greater triangulation across the data, resulting in more valuable findings. Quantitative methods are employed to examine learner differences in L2 Spanish proficiency and track measurable changes in communicative ability over time. Qualitative measures are used to provide context and answer the research questions, identifying: 1. How MMOGs like WoW mediate L2 Spanish learning, 2.How social interaction in MMOGs like WoW affects L2 Spanish learning, and 3. How L2 Spanish proficiency and MMOG gaming proficiency shapes the learning experience in MMOGs like WoW.

Study Context: World of Warcraft

This study examines groups of college Spanish students playing the Spanish language version of World of Warcraft. With over 11 million subscribed users, WoW is the most popular MMOG available. This expansive user base is a testament to WoW's mass appeal and worldwide commercial success. WoW is constantly updated through patches and expansions that add content and features to the game. For players, this translates into a game narrative that is continually developing, giving incentive to play long after the initial release of the game. Players who have attained the highest levels are able to further advance through these patches and expansions (e.g., in WoW, four subsequent expansions raised the highest level attainable from 60-70, 70-80, 80-85, 85-90, and soon, 90-100). The popularity and polish of WoW, along with the populous Spanish servers and localization of the game in Spanish, are reasons this MMOG has been chosen for study.

There are three game servers, Drakkari, Quel'Thalas, and Ragnaros, which are populated by players from across Latin America, though players from North America are also able to access these servers. These three servers have a combined character population of 292,640, although information on actual player accounts is not available. Players can have up to 8 players on a server, which means that at the very least, there are 36,580 unique player accounts across these three servers, though there are likely many more accounts than this. Although they are less populated than Ragnaros, the Drakkari and Quel'Thalas servers are used in this study, due to the limited space on the Ragnaros server.

Setting and Participants

Answering the research questions posed in this dissertation study requires thoughtful understanding of the implications of using WoW as a part of a language study curriculum. In order to do this, a two-study design is used, with each study using a greater level of curricular integration of WoW for L2 Spanish learning. This design allows me to compare and understand the affordances for learning in MMOGs like WoW when used as an extracurricular venue for language practice, and within realistic contexts of integrated curricular use. This design may aid in understanding differences at two varying levels of integration and possibly hold implications for ideal contexts for use of MMOGs for L2 learning.

Study 1 uses WoW as an extracurricular environment for Spanish practice. This study follows volunteers from universities in southern California and Hawaii recruited at various points between 2010-2013. A total of 10 participants from classes ranging from high-beginner to advanced were recruited for this study. Being voluntary and extra-curricular, there are no formal grades associated with play, allowing learners to self-regulate the amount of time they spend in WoW, though they are encouraged to play an average of 5 hours per week. The reason for this

design is to explore the nature of L2 Spanish learner interaction in WoW and determine what affordances and challenges play in MMOGs like WoW present. Data collection for this study is ongoing, and will continue for the duration of this dissertation research.

In study 2, WoW functions as a fully integrated part of a 1-credit Spanish course. This course is open to all interested in improving their Spanish writing, meaning that a great variety in L2 Spanish proficiency among the participants is possible. As the instructor of the course I have designed the syllabus (attached in the appendix) to take advantage of play in WoW to provide a context for class writing activities, which is also analyzed as part of the data. At the onset of the study participants submitted a short essay (up to 300-words) on a topic of their choosing (this allows them to use the language they are comfortable with and may aid in assessing their Spanish level). While I do not want student to be limited artificially based on a set topic, a prompt is also provided, in case students are unable to decide upon a topic. These participants also took the Woodcock-Muñoz Language Survey-Revised (see explanation below). The WMLS-R, preliminary essay, and survey will be analyzed to establish the L2 Spanish proficiency of participants.

As with Study 1, survey items, in-game observation, journals, and chat log data will be used to determine MMOG gaming proficiency, which will be factored into the overall participant profiles.

Table 2

Dissertation Study Timeline

Study ID	Type of Class	Spanish Level	Location	Participant Number	Time of Collection
Study 1	Volunteer-participants	High-beginner - Advanced	Online only	10	May 2010-September 2010, June 2012-August 2012
Study 2	1-Credit Spanish	High – beginner	Southern CA	15	January 2013-May

Sources of Data

Participant Profiles

Differences between learner experiences were examined according to levels of gaming expertise and L2 Spanish proficiency. A participant profile survey was used to gain general descriptive data including cultural background, SES, gaming experience, and self-reported L2 Spanish proficiency. The WMLS-R was also administered to study participants to further determine Spanish language proficiency. The WMLS-R is designed for measuring cognitive-academic language proficiency (CALP) and is intended to be administered among people ranging in age between 4-adults. The test content covers a variety of "important skills needed for language proficiency for a diverse population, covering a broad range of development" (Website). There are two versions of WMLS that differ in length, each version measuring both English and Spanish proficiency. The shorter 25-minute Spanish screener test was used in the 1-credit Spanish course. The Spanish test was administered during the first week of the quarter, in January and then in April. The tests were scored using the provided scoring guidelines included with the WMLS-R testing materials. Scores categorize participants into 1 of 6 levels of CALP, ranging from negligible at the low end and very advanced at the high end. The WLMS-R was used in this research to understand the differences in participant ability; it was used primarily to compare participant against each other, so raw score totals are presented in this data. The results of the WMLS-R screener test, together with the preliminary essay described below contribute to building L2 Spanish language proficiency profiles.

The MMOG proficiency profile is self-reported through the pre-study survey and was and expanded upon during interviews, in-game observations, and journals. Initially, this category was

designated as "gaming proficiency"; however, it became clear that gaming proficiency was a flawed measure; MMOG proficiency is a more relevant category. MMOGs share many of the same design features as other games, but requires additional skills relating to text-heavy social interaction and coordination, a degree of mastery of complex user interface elements (e.g., hot keys, macros, etc.), knowledge of core MMOG game mechanics (e.g., questing, parties, dungeons, raids, loot, vendors, etc.). As opposed to other genres, which can be played using a dedicated video game controller, MMOGs require players to master keyboard and mouse commands for everything ranging from movement in 3D virtual space and attacking, to "looting" (i.e., collecting rewards) and managing "toon" (i.e., character) inventories. In addition to these "basics", successful players understand other systems within MMOGs, represented in WoW as the "AH" (i.e., Auction House), professions (e.g., mining, herbalism, alchemy, etc.), events (e.g., Darkmoon Faire, Lunar Festival, Children's Week, etc.), and even "pet battles".

High MMOG proficiency is believed to be conducive to increased and ease of interaction in WoW; this research seeks to understand further how both MMOG proficiency and L2 Spanish proficiency shapes the language learning in the MMOG environments.

Profile categories are made up of a cross-section between MMOG and L2 Spanish proficiency. Table 3 below displays the data from these cross-sectional categories.

Table 3

Participant Profiles

Learner	Low Spanish Proficiency	Inter. Spanish Proficiency	High Spanish Proficiency
Low MMOG Proficiency	8	0	6
Intermediate MMOG Proficiency	0	0	0
High MMOG Proficiency	5	3	0

Focal Participants/Composite Character

The data of five focal participants is reported in this article. These participants were chosen as representative of 3 unique profile categories: 1) Low Spanish/Low MMOG; 2) Low Spanish/High MMOG; 3) High Spanish/Low MMOG. Participants who are not explicitly included in the data reported here are represented by these focal participants; while minor details may vary (e.g., specific text chat, journal entries, etc.), each focal participant highlights the common, shared experiences of other participants in their profile category. For example, Amelia is the focal participant representative of the Low Spanish/Low MMOG category; her experience is similar to the other two Low Spanish/Low MMOG females, and her data is interpreted here as representative of females in the Low Spanish/Low MMOG category.

Kendall is a composite character, representing the collective study experience of 6 participants, 4 native Spanish speakers, 1 heritage speaker, and 1 advanced Spanish learner. All participants represented by Kendall are ethnic minorities and all but 1 are women. The data collected from these participants was combined into the Kendall composite character, which represents characteristics common among participants. McRobbie and Tobin (1995) created a Year 11 chemistry student composite character, which represented interview data collected from several other students. Likewise, I have grouped the chatlogs, journals, and interviews of study participants into the Kendall composite character. Kendall was created from data that are game related (e.g., chatlogs, journals, etc.), along with the WMLS-R data. Kendall was created for two reasons: 1) The focus of this research is to understand how virtual MMOG spaces create affordances for L2 Spanish learning; comprised primarily of native speakers and high-ability heritage speakers, Kendall's experience provides insight in how these spaces, as used for

language development, are received by and potentially benefit this key language learning demographic.

Table 4 displays the MMOG proficiency and WMLS-R averages for participants classified as Low Spanish/Low MMOG females, and Low Spanish/Low MMOG males, and Low Spanish/High MMOG males[1]; compared with table 5, which displays the same data for the focal participants, there are no significant differences. In terms of Spanish and MMOG ability, the focal participants are a good representation for their respective groups.

Table 4

Study Participant Profiles

	Low Spanish /Low MMOG Females	Low Spanish /Low MMOG Males	Low Spanish /High MMOG	High Spanish /Low MMOG
Gaming Expertise (0-5)	.066	1	3.83	1
[2]WMLS-R	18.9	12.25	16	42

Table 5

Focal Participant Profiles

	Amelia Low Spanish /Low MMOG	**Adam** Low Spanish /Low MMOG	**Andrew** Low Spanish /High MMOG	**Emilio** Low Spanish /High MMOG	**Kendall** High Spanish /Low MMOG
Gaming Expertise (0-5)	1	1	4	N/A	1
[3]WMLS-R	17.75	12.75	17.75	N/A	42

---

[1] This category is made up of males only.
[2] These are the averaged totals for raw scores on the first 4 tests of the WMLS-R
[3] These are the averaged totals for raw scores on the first 4 tests of the WMLS-R

Amelia. The novice gamer/language proficiency category is represented by Amelia, a Caucasian female, who took part in two quarters of the 1-credit Spanish course. While she selected "not really" on the survey item asking if she was a gamer, Amelia, had played modern (i.e., 2001 and newer) games, having played games within the 2 weeks prior to the administration of the survey. She reported experience playing another, more recent Blizzard game, Diablo 3.

During interviews and observation of gameplay both online and in class, it was clear that the Amelia and the other two females in this category were truly novices, as far as MMOGs are concerned. While Amelia and Adam (see below) reported having recently played video games, the types of games played aligns with Gus Andrews' (2008a; 2008b) findings: minority and low SES groups generally stick to console games (i.e., action, action-platformer, sports, etc.), very rarely playing MMOGs, which carries a higher entrance requirements (e.g., higher cost of computers, mouse and keyboard control systems, etc.). This unfamiliarity with MMOG gaming proved to be a high hurdle for many of these players, which added a layer of complexity to the primary study objective of in-game interaction with the goal of developing Spanish language ability.

Adam. Adam represents the experience of 5 novice gamer/language proficiency male participants. Like Amelia, Andrew does not identify himself as a gamer, but had indicated playing games within a week of the study. Adam is unique from other participants; he joined the 1-credit course with his best friends, twin brothers, who also share the same apartment. Adam has very little experience with MMOGs and is a false beginner Spanish learner.

Andrew. Andrew represents the proficient gamer/low proficiency language represents seven participants, all Caucasian males, most of whom were familiar with MMOGs. Only 1 of the participants in this group had never played WoW before.

Emilio. Emilio was the focal participant in the initial pilot study. He is demographically similar to Andrew (e.g., Caucasian, computer gamer, etc.).

Kendall. The composite character Kendall, who represents novice gamer/high language proficiency, was created from 6 participants. Kendall is made up of 6 participants, 4 native Spanish speakers, 1 heritage speaker, and 1 advanced Spanish learner. All participants in this group are ethnic minorities and all but 1 are women.

Student Writing

All students produce a short essay at the onset of study 2 and also complete a final writing sample at the end of the study (i.e., academic quarter, see section on data analysis below). This pre-study essay was written by participants in class, on the first day of instruction. Though students were encouraged to choose a topic of their own, a prompt was also offered, which asked, "What did you do over the break." Participants were instructed to use this essay as a chance to show off their Spanish ability. Some students struggled through this process and were encouraged to write anything they could; many chose to write a brief introduction, based on my in-class suggestion. This is done to encourage the best, and the most writing out of the participants. The final writing assignment is included in learner journals; students were asked to reflect upon their experience in the 1-credit course.

All other writing in the classes described in study 2 was collected and analyzed. These writing samples were analyzed for lexical variation and density. In conjunction with the self-report and Woodcock- Muñoz Language Survey, this allows for further designation of the

language proficiency of participants. This type of analysis is applied to all data collected throughout study 2, which data includes chatlogs, journals, interviews, in-game interactions, class activities, and various written class work.

In-Game Observations, Interviews, and Documentation

I was online during the evenings to play, help, and socialize with study participants. These in-game interactions allow me to observe the in-game behavior (i.e., action and language) of participants and will contribute to understanding the participants' language learning and game experience. For example, the game user interface provides information about whether a player contact is online. Using this interface makes it clear who is actively participating socially via text chat, and who is having difficulty and/or preferred to be an observer. Online observation and interaction allows me to take appropriate action to understand what players are experiencing (e.g., ask questions in-game or during interviews) and possibly provide some form of scaffolding to improve their experience.

Participants were individually interviewed either in person in my research office or via Google Hangout every 2 weeks, with interviews lasting between 10 and 15 minutes. These interviews were intended to provide the researcher with a broader understanding of each participant's experience in the game. Additionally, issues that emerged from reading participant journals and from in-game observations were discussed during these interviews. A sample of questions asked during these semi-structured interviews is provided in the appendix. Interviews were videotaped, transcribed and analyzed to add further context the other sources of data. The interviews follow the same coding scheme applied throughout this dissertation study.

Chatlogs

In MMOGs like WoW, game play is facilitated through synchronous text chat. A customizable chat window appears in the user interface, which can be viewed and reviewed. There are multiple chat channels, each represented visually in the chat menu by a distinct color: /say - white (there are many "say" channels that are localized for specific game regions and topics - for example, the infamous, but now dead, "trade chat"), /battleground, /raid - orange, /guild - green, /party - blue, and /whisper - purple. This becomes important, because there are discourse norms associated with each chat channel, and a discourse analysis of chatlog data must account for context, of which the chat channel is the obvious starting point.

WoW supports the use of add-ons, which are user-created programs that run within the game. The primary add-on used in this study is *Elephant*, which is a chatlog recording add-on.

Figure 1. Graphical User Interface of WoW – Chat Channels

Participants were tasked with recording their chatlogs using this add-on, which is essentially a running transcript of their Spanish language interactions with other study

participants, and non-study WoW players on the Spanish server. These chatlogs are the largest part of the data used for analysis.

Below is a table outlining the data artifacts collected and analyzed in this research.

Table 6

Data Artifacts Collected in Study 1 and Study 2

Data Artifacts	Study 1	Study 2
Woodcock-Muñoz Language Survey (Screener - Spanish/English)		X
Pre-study Survey	X	X
Biweekly (once every 2 weeks) Live/Google Hangout Interviews	X	X
Chat logs	X	X
Journals	X	X
Class Writing Assignments		X
Class Quizzes/Tests		X
In-game observation	X	X

Forums

One of the activities for the 1-credit seminar course tasked students with reading and participating in the Spanish language WoW forums. The forums contain information organized around player interests such as character class (e.g., Warlock, Paladin, Mage, etc.), class roles (e.g., damage dealing, healing, tanking), realms (e.g., Quel'thalas, Aegymnn, etc.), PVP (player versus player), gameplay and guides, community (e.g., fan fiction, guild recruitment, general discussion), and support (e.g., technical support, public test realm bug reports, etc.). There is a forum for almost any game-related interest and in many instances, topics that have very little

connection to the game. The role-playing forums are particularly interesting, as the writing exhibits many of the traditional literacy characteristics reported by Steinkuehler (2007).

Forums serve as a repository of game knowledge, with a many active posters sharing information and experiences daily. By participating in the forums, study participants engage with Spanish language content that is relevant to their play experience. Participants must search out material that is relevant and interesting to them, whether it relates to gameplay (class roles forum), lore (fan fiction), or other offbeat topics (e.g., World's End Tavern).

Discourse Analysis

Gee's discourse analysis (2005) plays a central role in the interpretation of the data. Discourse analysis tools outlined by Gee (2005; 2010) aid in understanding how learners participate in the myriad activities in the L2 Spanish WoW environment. Gee provides a framework of tools useful for situating utterances within their contexts of use. While all discourse analysis is subject to individual interpretation, methodical and rigorous application of these tools allows for more systematic and reliable interpretation.

While other qualitative methods of text analysis focus on structure and lexical meaning (e.g., systemic-functional linguistics), discourse analysis applied in this research will take into account meanings that arise from context and that extend beyond the language provided in the data. As with all complex social interaction, much more information is embedded in any unit of language than what is presented (i.e., spoken, written). Having consistently played WoW since its release in 2004, I am uniquely positioned as an insider, understanding most of the Discourse of MMOGs like WoW.

Research Questions 1 & 2

How and in what ways does the virtual environment (game features) of MMOGs like WoW *mediate language learning? How and in what ways does social interaction with other players in* WoW *affect language learning?* The very nature of these questions favors qualitative analysis, for which the methods previously described are well suited. These questions will be answered through the top-down and bottom-up coding procedure described above.

Research Question #3

How does L2 Spanish language proficiency and MMOG gaming proficiency shape the language learning experience? This question is answered by examining the coding scheme applied to questions 1 & 2, adding the variable of learner profile to look for differences in experiences based on L2 Spanish proficiency and MMOG gaming proficiency. It was expected that there would be great variation that coalesces around these two factors; participants sharing profile characteristics are expected to share the same types of learning experiences. For example, two participants that are both highly proficient in MMOG gaming may share the same types of interaction and learning experiences, while a less MMOG gaming proficient participant may have a different experience. Data collected thus far suggests that these are the two most important variables, though another similar study (Soares, 2010) suggests that gender may also play a key role in governing the types of learning experiences afforded by the gaming environment.

Data Collection

Study 1

Data was collected from L2 Spanish learners who were enrolled in Spanish classes during the Spring of 2010, Winter 2012, and Spring 2012 at a four-year university in Southern

California. Six participants, four males and two females, of varying levels of Spanish language ability and familiarity with WoW, were recruited for the study.

Emilio and Sylvania. Two of the participants were defined as high-beginner language learners, enrolled in the second quarter of a 1-year language course sequence, two were defined as intermediate language learners, enrolled in the first and second quarter of the second year of the course sequence, and two were defined as high-intermediate and advanced, enrolled in the first quarter of the third year of the course sequence. Three males were experienced WoW players, and one male and two females were new to the game.

At an initial meeting, participants were given a Spanish language copy of WoW, were familiarized with basic game mechanics (i.e., player movement, quests, items, etc.) and were shown how to install the chat log addon *Elephant* to record game text chat. Participants were also instructed to copy and paste the chat text to a Google document for purposes of later analysis. One participant had difficulty using the add-on for recording in-game chat, so chat data for that participant is limited to recordings from other participants' logs. During this meeting, participants were asked to play the game over the course of a seven-week period. They were free to play WoW at their discretion, though they were encouraged to play an average of five hours per week. They were also encouraged to write a short journal entry after each game session detailing their experience, though this was not required. In addition, participants met with me three times (every two weeks) for semi-structured interviews, each lasting approximately twenty minutes. The purpose of the interviews was to understand their game play experience, how they interacted with other people and challenges they encountered either in the game or while interacting with other players in the space, as well as how they perceived their language proficiency to be developing. These meetings were recorded and transcribed. Thus, data from

each participant includes a combination of self-recorded chat logs or chat captured in the logs of other participants, journal entries, and transcribed semi-structured interviews.

Study 2

Data was collected at two separate times, during January 2013 - March 2013, and again from March 2013 - May 2013. Participants in the first round of data collection came from a pool of L2 Spanish learners who were enrolled at a four-year university in Southern California. 9 participants, 3 males and 6 females, of varying levels of Spanish language ability and familiarity with WoW, enrolled in the 1 credit course and agreed to participate in the study.

The second round of data collection is gathered from 5 participants, four males and one female, of varying levels of Spanish language ability and familiarity with WoW, who also enrolled in the 1 credit course and agreed to participate in the study.

Figure 2. Student playing WoW in class.

Amelia, Adam, Andrew, and Kendall. Both cohorts met on the first day of the academic quarter. This initial meeting was a typical first class session; an outline of the course and course expectation was given and with an explanation of the syllabus. Students were given the study information sheet and informed that participation in the course meant consent to be a

part of this research study. Students were given time to ask questions and opt out the study - no student opted out of the study. Once this was done, students were directed to a Google Form, where they were given 15 minutes to complete the preliminary essay. Upon completion of the essay, students were walked through the process of downloading and installing the WoW game client, and installing the chatlog recording addon *Elephant*. As a convenient coincidence, both cohorts had experienced WoW players who assisted in game and addon installation. Blizzard's installer allows for game play during installation, which allowed participants to create a starter character and experiment with movement and basic game mechanics. The veteran players mentored other students with the basics; they were particularly helpful in explaining how *Elephant* works. Each student created a Google document wherein captured text chat from this initial play session was recorded. Because text chat makes up the bulk of the L2 interaction data, it was emphasized that students learn how to copy and paste their logs.

This 1-credit class was scheduled for 50 minutes; students were dismissed with the homework of completing the participant profile survey, which could be accessed via a secure web form. During both initial meetings, students voluntarily lingered to experiment and play together after class was over.

There was a lot of information shared during the first class session, so students were encouraged to visit a study blog I created for summer 2012 participants, as seen below:

*Figure 3.*Study blog with useful links, phrases, etc.

http://wowowubzy.blogspot.com/?zx=1ffe2f136b99bb06

This blog contains all the instructions necessary to get started as a participant in the

study. Students in cohort 2 of study 2 were directed to an additional resource - our class website:

Figure 4. Class website.

This resource contained a Google Calendar, where students could keep track of interview times, class gaming sessions, and important due dates. The website also contained useful links, and tips geared towards helping participants have a successful language acquisition experience in WoW. A participant from cohort 1 was asked to continue her experience in cohort 2 as an assistant; she provided vocabulary words of the day; these were useful words or phrases that were common in WoW.

Students were required to short journal entry after each game session detailing their experience. They were encouraged to write in Spanish, but were not penalized for writing these journals in English. Many students later reported that after long play sessions in Spanish, it was exhausting to write a Spanish journal entry, and many opted to write their journal during the next day or two.

Participants met with me for semi-structured one-on-one interviews five times (every two weeks) either face-to-face or via Google Hangout, with each interview lasting approximately ten minutes. As in study 1, the purpose of the interviews was to understand their game play experience, how they interacted with other people and challenges they encountered either in the game or while interacting with other players in the space, as well as how they perceived their language proficiency to be developing. These meetings were recorded and transcribed. Thus, data from each participant includes a combination of self-recorded chat logs or chat captured in the logs of other participants, journal entries, and transcribed semi-structured interviews.

Additionally, students were assigned specific tasks designed to recruit and leverage both student and MMOG strengths. For example, the heritage speakers in this cohort, represented by composite character Kendall, were assigned to party (i.e., group) with novice Spanish speakers, encouraging the types of negotiations of meaning described by Blake & Zyzik (2003), who found mutually beneficial Spanish language learning interactions between NNSS (non-native Spanish speakers) and heritage Spanish speakers.

Students were also required to participate in the Spanish language game forums, complementing game-based language interaction with asynchronous language interaction. This activity proved quite useful for both groups, but for very different reasons, as will be described later in this report.

As an experienced gamer and advanced Spanish speaker, I acted as a participant-observer (Spradley, 1980) throughout both studies. During the first weeks of each study, most participants logged on and formed a party made up of myself, study participants, and players not affiliated with the study. These online interactions were collected in field notes. These notes captured the general nature of field interactions with and between players, highlighting the challenges and successes of participants during play. In terms of analysis, as an avid WoW player, L2 Spanish speaker, and language and literacy instructor, I am uniquely positioned as an insider, understanding the intricacies of participation and interaction within the game space.

Data Analysis

The initial stages of analysis involved a qualitative, inductive process aimed at identifying patterns in participants' language use and in their interactions in the chat logs (e.g., type of utterances, length of pauses between utterances, and role that participants play in exchanges) and changes over time. This stage of analysis also included identifying themes that emerged in participants' journal entries and interview transcripts (e.g., aspects of the game that participants perceived as difficult, enjoyable, and helpful; references to language ability, and language use). During this process, the notion of affordances for language learning and socialization became salient in the data. Therefore, in subsequent analysis, I took a theoretically informed, deductive approach to coding and looked for particular examples of, and references to, affordances for language learning in the data. During this stage of analysis, I identified four affordances that build upon and further elaborate those that have been described in the existing literature: *World of Warcraft* (1) allows for and supports the creation of safe learning and languaging spaces, (2) emphasizes communicative competence, or the ability to communicate meaningfully and effectively within a given context, (3) promotes goal-directed, collaborative

action between experts and novices, and (4) values practice over perfection, meaning that communicative interaction takes precedence over attention to form. I then reviewed the data for examples of participants' positive, negative, and neutral experiences with these affordances, and how *Spanish* and *MMOG proficiency* shapes their experience, in order to understand the potential that these affordances might offer in terms of language teaching and learning.

CHAPTER 4: FINDINGS

The following analysis follows the experience of each focal participant as they venture from the comfort of play with known study participants, to increasingly authentic L2 social interaction with native Spanish speaking players on the Spanish server Quel'thalas, which includes activity in higher stakes Spanish language guild affinity spaces. The excerpts from each focal participant's chat logs, journal entries, forum posts, and interviews are illustrative of key affordances for language development and socialization that were identified in the WoW environment. It is important to note that in this analysis of the data, I identified multiple affordances that are aligned with the advantages for language learning described in other game-based research, such as a low-anxiety setting, multiple routes for and modes of communication, expert-novice interaction, immersion in the target language, and access to native speakers (Peterson, 2010; Rankin *et al.*, 2006; Rankin *et al.*, 2009; Thorne, 2008). The focus here is primarily on affordances that merit additional discussion vis-à-vis the aforementioned research. It is also worth noting that although the data are presented as illustrations of specific affordances, there is considerable overlap in affordances that were identified in each of the data excerpts we discuss below; the single-affordance organizing categories were selected for clarity and to highlight key differences between these findings and those of other studies. Each affordance category contains data excerpts that answer the research questions by highlighting the affordance (Questions 1 & 2), and where applicable, contrasting the experiences of the representative focal participants (Question 3).

Affordance 1: Allows for the formation of safe learning and languaging spaces

A key affordance that emerged during analysis was how the WoW environment *facilitated the creation of safe learning and languaging spaces*. In his review of hypothesized advantages of games for language learning, Peterson (2010) identifies related affordances of the game, such as "community formation" and the "development of collaborative social relationships" (*op. cit*.: 432); however, these advantages do not explicitly address the role that the game interface plays in creating these collaborative spaces, nor do they explicitly address the notion of comfort and safety for players.

Amelia Affordance 1

Amelia begins her journey having zero experience with MMOGs and barely above a false beginner Spanish level. Her first forays into Spanish language interaction with non-study players (NSPs) are filled with basic bids for communication (e.g., hola, como estás, etc.). In this chat excerpt, we see a typical exchange, where Amelia experiments with the game interface and begins a basic conversation with a nearby adventurer:

Amelia Excerpt 1

Amelia Reaches Out

A) 12:37:43 You wave at Stormwind Infantry.	A) 12:37:43 You wave at Stormwind Infantry.
B) 12:37:46 [Amelia]: hola	B) 12:37:46 [Amelia]: hello
C) 12:37:55 [Amelia]: estoy tratando de jugar	C) 12:37:55 [Amelia]: I am trying to play
D) 12:38:07 [Amelia]: hola Nachan	D) 12:38:07 [Amelia]: Hello Nachan
E) 12:38:14 [Nachan]: hola	E) 12:38:14 [Nachan]: Hello
F) 12:38:19 [Amelia]: estas guapo	F) 12:38:19 [Amelia]: you look handsome
G) 12:38:26 [Nachan]: hahaha	G) 12:38:26 [Nachan]: hahaha

In line A we see Amelia experimenting with line commands - she waves at a non-player character (NPC) using the /wave command. This non-verbal communication is important in MMOGs, conveying meaning through on screen text, and in some cases like waving, on screen action. Waving is a friendly gesture, and here is followed up with some small talk by Amelia to a NSP. While she didn't receive much of a response, Amelia reported in interviews "… there were lots of people who would talk and hang out, so it wasn't that big a deal… I felt comfortable just talking, because it's just a game, and people were usually pretty friendly." She relates how the game space felt "less threatening" (than traditional classroom activities) and how this increased her comfort level in seeking out opportunities to interact in Spanish.

Ragefire Chasm is the first dungeon accessible by players in the horde faction and serves as an entry point into a key feature of MMOGs: dungeons. Played at the appropriate level, dungeons require 5 players to complete, with each player fulfilling a specific role (e.g., tank, healer, damage dealer). Dungeons require much more coordination and communication than questing alone, or with a partner; there are 5 players who must understand what is going to take place in order to be successful (i.e., kill the dungeon bosses and collect powerful items). Because of the higher stakes involved (e.g., receiving powerful items for success), dungeons can be somewhat more stressful than solo play, especially for a MMOG and Spanish language novice playing on the Spanish server; learning the gameplay mechanics (e.g., threat, crowd control, focus fire, healing, etc.), the specifics of the dungeon (e.g., boss has an area of effect nuke ability), and trying to monitor and respond to Spanish language text chat, adds up to being a daunting task. To ease participants into this core experience, I participated in some of their first forays into dungeons.

Amelia's first venture into Ragefire Chasm was a success, as we cleared (killed) every boss and collected powerful item upgrades (loot). As a MMOG novice, Amelia is unfamiliar with the concept of item rarity, and the gameplay benefits of acquiring more powerful armor. As we looted the last boss, [Cursed Felblade], a sword suitable for melee classes dropped. Seeing this as a chance to receive "blue" (rare quality) loot, Amelia picked up the sword, which preceded the following interaction:

Amelia Excerpt 2

Amelia's Challenges with MMOG Conventions

A) 12:11:09 [Cazabro] whispers: oye	A) 12:11:09 [Cazabro] whispers: hey
B) 12:11:35 [Cazabro] whispers: q no usas espadas	B) 12:11:35 [Cazabro] whispers: you don't use swords
C) 12:12:22 [Amelia]: lo siento	C) 12:12:22 [Amelia]: sorry
D) 12:12:40 [Rama] whispers: dale la espada al guerrero	D) 12:12:22 [Rama] whispers: give the sword to the warrior
E) 12:12:44 [Cazabro]: no problema eres nueva?	E) 12:12:44 [Cazabro]: no problem are you new?
F) 12:12:59 [Rama] whispers: un poco de inglés - you can quickly respond to a whisper by typing "r" - try it	F) 12:12:59 [Rama] whispers: a little bit of English - you can quickly respond to a whisper by typing "r" - try it
G) 12:13:37 [Amelia]: si	G) 12:13:37 [Amelia]: yes
H) 12:13:53 [Cazabro] whispers: estas en grupo?	H) 12:13:53 [Cazabro] whispers: are you in a group?
I) 12:15:01 [Amelia]: no comprendo	I) 12:15:01 [Amelia]: I don't understand

J) 12:15:33 [Cazabro] whispers: quiero la espada - juntate conmigo te ayudo	J) 12:15:33 [Cazabro] whispers: I want the sword - join me I'll help you

As mentioned above, there are a number of reasons why entering a dungeon under the circumstances that Amelia has entered could be a potentially stressful situation. First, in lines A and B, we see Cazabro whisper (i.e., send a private message) Amelia, chastising her for looting (i.e., taking a powerful item) the sword. There is an understanding in MMOGs that you loot according to "need before greed", meaning that the person who needs the loot takes it over a person who does not. This is based on whether the loot is appropriate for a character class, is an upgrade (more powerful than the items the player currently has), and a variety of other nuances - the point here is that Amelia is unfamiliar with these MMOG norms and finds herself in a situation where Cazabro, a warrior, needs and can make better use of the sword than Amelia, who is a mage.

I whisper Amelia, telling her to give the warrior the sword, and after I receive no response, I also indicate how she can quickly respond to whispers using "r" to send a quick reply. What happens next in the chatlog is not surprising - Cazabro realizes that Amelia must be new (she hasn't responded to his whisper, she is communicating via /say chat rather than /party chat, she "needed" an item she has almost no use for, etc.) and offers to help her exchange the sword. At his beginner level of play, loot is easy to come by and simple mistakes are often overlooked, as evidenced by Cazabro's reaction to Amelia.

In an interview I asked Amelia about that experience. She recalls, "... I had no idea what was going on. I just saw the sword and clicked on it. It was hard because we just killed that guy (dungeon boss) and everyone was talking all at once. Then that guy wanted me to join up with

him and give him the sword. I felt bad because I really didn't know what was going on… He was cool though, even though I couldn't figure out how to give him back the sword. We tried to do the dungeon again, but couldn't form a full group." Despite a noob (new/inexperienced player) mistake, Amelia is encouraged to persist, as the NSP Juanted made Amelia feel welcome and was understanding of the fact that she was a new player.

This was commonly reported among all study participants, WoW veterans included: players on the Spanish server were generally very understanding and forgiving of gameplay mistakes and language errors. Specifically with regards to language, NSPs were either neutral (i.e., ignored) or encouraging in their interactions with study participants; they were not once reported to be discouraging.

These two excerpts from Amelia's play highlight how 1) the game environment and 2) NSPs contribute to the formation of safe learning (both MMOG learning and Spanish learning) and languaging spaces.

Adam Affordance 1

Spanish was one of the difficult and least-liked subjects for Adam, but he enrolled in the 1-credit course, interested in how he might have fun playing the game with his friends while learning Spanish. After 2 weeks, Adam writes his first journal entry, explaining his dislike for traditional Spanish classroom instruction, his reasons for joining this class, and recounting his experiences as recorded below:

Adam Journal 1

1. When I started to play this game I was so into it,

2. because I created a character and then went into a fantasy world of worries and battles.

3. This game got me thinking a lot because it seemed like I am lost and the game was

> confusing and all
>
> 4. but my family and the chat line got me through the levels.
>
> 5. For ending todays journals to say
>
> 6. I enjoyed the game and now I am in level 4…

Here we see game enjoyment and excitement to get involved in the virtual world prefacing his other comments related to early gameplay challenges. These early challenges were overcome with the help of "family" and the "chat line", which aided in his enjoyment, reflected in the closing line.

In interviews, Adam related how "playing the game without my friends would've been impossible. We all helped each other understand how to play the game… and we would even speak to each other in Spanish around the apartment." Family here refers to his two high school friends who were also roommates and participants in the study. Functioning like the beginner guild for other participants in this study, this group of friends supported and motivated each other to persist in game and language learning objectives.

In addition to the social support he received in game, Adam benefitted from game user interface (UI) features like the "chat line" (chatlog). Functioning like a typical instant messaging/chatroom platform, all text chat in WoW is captured in the chat window and can be reviewed by scrolling back through the chatlog. Adam recounted how this was particularly useful, since as a beginner, he would miss a lot of what was being said, but could quickly review this and even use the internet to figure out words he didn't initially catch. In focus groups and 1-on-1 interviews, all participants, from low Spanish ability to the native speakers, brought up the usefulness of the chat interface for reviewing chat messages.

Adam's experience further demonstrates how social support in WoW encourages a safe

learning and languaging space, and that built-in UI features in WoW, like the chatlog, add

another dimension to this affordance.

Emilio Affordance 1

In another example of how WoW facilitated the creation of safe learning and languaging

spaces, during the first weeks of each study, all study participants were members of an

introductory guild where they could learn basic game mechanics in a low anxiety setting with

other Spanish language learners from the university. To clarify, a guild is a mechanism by which

hundreds of players can form a persistent affiliation within WoW (i.e., it persists even after

logging off). Guilds (as well as smaller collections of players known as parties or groups) have a

private chat channel that is separate from general chat. Because the general chat channel is open

to large numbers of players engaged in a wide range of activities, interactions can be somewhat

chaotic and difficult to follow. Conversely, guild (and certainly group and party channels)

usually have fewer interlocutors at any given time, thereby reducing the number of topics and

making the conversational strands easier to follow. The guild chat channel is also beneficial in

that it provides a measure of accountability for one's utterances, as a member can be kicked out

of a guild for interacting in an offensive manner. Guilds also provide an easy means of locating

known others, because the interface automatically provides an aural and textual alert when other

members of the guild log on to the game.

Analyzing an excerpt from Emilio's first journal entry illuminates how he and other guild

members interacted in the early stages of their gameplay.

Emilio Journal Excerpt 1

Emilio's journal entry at the beginning of the study

1. Hoy yo fui a las mazmorras con Silvania y Picarico...	1. Today I went to a lot of dungeons with Silvania and Picarico.
2. Entonces fuimos a Bosque de Elwynn para ensenar Silvania a colectar plantas para herboristeria y inscription.	2. Then we went to Elwynn Forest to teach Silvania to collect plants for Herbalism and Inscription.
3. Era divertido.	3. That was fun.
4. Me parece que cuando estoy con Picarico o con Silvania me siento bien, pero esto es porque siento comfortable si necesito les pregunto sobre espanol.	4. It seems that when I am with Picarico or with Silvania I feel good, but this is because I feel comfortable if I need I ask them about Spanish.

It is worth noting that although Emilio is a beginning Spanish speaker and Silvania was categorized as advanced, the game affinity space allows for multiple forms of participation that are not based on language ability. Therefore, Emilio was able to balance his uncertainty as a novice Spanish speaker with his expertise as a gamer and play an important role as a WoW guide for other members of the guild. In the first two lines of his journal entry, Emilio subtly and explicitly indexes his identity as an experienced WoW player. For example, he begins in Line 1 by mentioning that he, Picarico, and Silvania visited many dungeons that day. Dungeons are specialized parts of the game world that feature more powerful adversaries and more lucrative rewards than the general game environment. Because dungeons are more challenging, they often require players to group together and make multiple attempts to complete a given quest. While an inexperienced WoW player might spend a majority of time exploring the general game space and completing less-challenging, introductory quests, Emilio leads the other players in their

exploration of the more challenging dungeons. In Line 2, Emilio again is able to establish his expert status when he writes about teaching Silvania to collect plants for the Herbalism and Inscription professions.

Interestingly, the language learning aspects of this activity do not play a prominent role in the excerpt. Instead, each of the lines foregrounds either enjoyable aspects of gameplay, social interaction, and/or positive affect. Emilio's status as a Spanish learner is not mentioned until the final line of the entry, suggesting that in this case, WoW provided an engaging, low-anxiety setting in which Emilio was able to explore the Spanish language version of the game, while still enjoying interaction with others and gameplay. Moreover, the guild provided a safe space in which Silvania, the more proficient Spanish speaker but less experienced gamer, was able to experiment with navigating the game and benefit from another guild member's expertise. According to Silvania, "being in a group makes communication easier and more convenient and also makes the game less lonely" (interview, 2010). Such data indicate that the guild and group functions of the game may afford opportunities for learners of varying levels to collaboratively use language to accomplish tasks and teach and learn from each other in a safe environment.

Andrew Affordance 1

Another expert gamer, Andrew, turned to the forums to probe the Spanish speaking WoW community for their willingness to accept Spanish learners. As previously mentioned, forums are an important resource in MMOGs. Here Andrew asks a simple question in the General Forum:

Andrew Forum Post 1

Thread title: Hola! Puedes conocer mas bueno personas en una reina de espanol?

Thread title: Hello! Can you meet more good people on a Spanish server?

Andrew:	**Andrew:**
1. Quiero entender espanol!	1. I want to understand Spanish!
2. Si juego en un reino de espanol puedo entender espanol bueno?	2. If I play on a Spanish server, can I understand Spanish well?
3. Es las personas estan amable?	3. It is the people are friendly?
Chiquitauren:	**Chiquitauren:**
4. Bienvenido a los reinos latinos,	4. Welcome to the latino servers,
5. como te dijeron mas arriba formas de aprender el español pueden ser cambiando tu cliente al español,	5. as they told you above a way to learn Spanish can be changing your (game) client to Spanish,
6. y claro preguntando por ahi,	6. and of course asking around,
7. gente para ayudarte va a haber, como gente que no.	7. there is going to be people to help you, like people who won't.
8. Disfruta de tu tiempo aqui.	8. Enjoy your time here.
9. Saludos!	9. Good luck!
Vacabuena:	**Vacabuena:**
10. Puedes comunicarte con algunos de los jugadores que ofrecen ayudarte,	10. You can talk to some of the players that offer to help you,
11. así te evitas el conocer gente idiota cuando llegues.	11. that way you avoid meeting idiotic people when you arrive.
12. Por mi parte puedes susurrarme y yo te puedo ayudar en algunas cosas, también soy	12. As for me, you can whisper me and I with be able to help in some things, I am also on

de Quel'Thalas.	Quel'Thalas.
13. ¡Saludos y suerte con el aprendizaje!	13. Welcome and good luck learning!

Of the twenty-seven responses, the overwhelming majority (21) were positive as reflected above, and in comments like:

"También te ofrezco mi ayuda dentro del juego, agregame de amigo y todo lo que quieras saber tienes total libertad de preguntarmelo. Saludos."

"I also offer you my help in game, add me as a friend and you have total liberty to ask me whatever you want to know. Cheers."

Only three comments did not address the forum topic, and three were discouraging. While a small sample, this follows what was reported in interviews with all participants: participants encountered a generally positive, helpful attitude in interactions with NSPs. Andrew reported, "When I'd say I was trying to learn Spanish, most people would be even more friendly and helpful, if they had the time. It's rare that anyone is rude… If they weren't interested, they'd just ignore you and move on, just like the English servers."

Kendall Affordance 1

As a native speaker, Kendall's foremost challenge is learning the game interface.

Kendall Journal Entry 1

Week after starting	**Week after starting**
Hoy juege mas WOW y creo que me estoy mejorando en el juego. ya se como hacer las cosas y como hablar con la gente. Hable con	Today I played more WoW and I believe that I am getting better at the game. I already know how to do things and how to talk to

dos personas . Una de las cosas que hablammos era sobre nutela, el chocolate de aqui en los Estados Unidos	people. I talked to two people. One of the things we talked about was Nutella, the chocolate from here in the United States
1 week Later Hoy tome mas tiempo para jugar el juego. Al principio nadie queria hablar conmigo. Pero en un rato despues dos personas me contestaron. Uno era de Mexico y el otro era de Chile. Ellos tambien eran nuevos pero sabian mas que yo sobre el juego. Yo quiero una mascota pero no puedo hasta que llegue a nivel 20.	**1 week Later** Today I took more time to play the game. At the beginning no one wanted to talk to me. But a little while later two people answered me. One was from Mexico and the other was from Chile. They were also new but knew more about the game than me. I want a pet but I can't until level 20.

As seen above, once Kendall gains familiarity with the game interface and general MMOG play mechanics, she settles into enjoyable conversation with NSPs.

The common thread binding the experiences of each focal participant together is how social interaction, gameplay, and user-interface, contributes to the formation of safe learning and languaging spaces. The biggest difference between participants revolved around MMOG proficiency, as increased proficiency results in greater opportunities for interaction. For example, Andrew uses the forums to seek out potential opportunities for interaction, something the novices would not consider, simply because of their inexperience with MMOG forums.

Data also suggest, however, some challenges associated with this affordance. For example, in her journal, Silvania (a LMMOG/HS participant in study 1) relates her disappointment at logging onto the game and finding none of her friends online to play with. She also conveys challenges that she had even when playing with other guild members when she writes," I thought I was getting the hang of the game, until I joined the 'hermandad' in what I think were missions. I was confused about 80% of the time. But it was fun. Until the end, when I had no idea what anyone was asking of me" (journal entry, 2010). Thus, while there is evidence to suggest that playing in groups is fun and comfortable for participants, there are also challenges associated with not clearly understanding game objectives even while in groups with native speakers, not understanding requests from native speakers during group tasks, and not being able to find known others with whom to group.

Affordance 2: Emphasizes communicative competence

Another key affordance that emerged in the analysis was how the gaming environment *emphasizes communicative competence.* Forms of communicative competence emphasized in MMOG play are closely associated with sociolinguistic (i.e., knowing how and what to say to whom, and when) and strategic competence (e.g., repair strategies, turn-taking strategies, etc.) described by Canale and Swain (1980). Play in MMOGs favors these forms of communicative competence, which places emphasis on contextualized meaning rather than grammatical and lexical correctness of standard language forms. While Peterson's (2010) review identifies similar hypothesized advantages of games for language learning, such as "extensive opportunities for purposeful TL use and reuse in an authentic and engaging communicative context" and "opportunities to engage in co-construction, negotiation, and the development of communicative competence" (*op. cit.*: 432), this affordance as reported here highlights how the gaming context

47

leads to cultural norms for language use and interaction that contribute to an explicit emphasis on communicative competence.

Amelia Affordance 2

"Whispering", using the /whisper chat channel, are private messages exchanged between two interactants. It is possible to be engaged with many different players on the "Whisper" chat channel, though each whisper is a private 1-1 conversation. As seen above, Amelia is not accustomed to using the whisper channel, and at the onset of her time playing WoW, generally carries out communication using the /say channel. While this is acceptable between strangers meeting during gameplay in the open world, it is a cultural norm to carry out conversations that bear no relevance to outsiders using either the /party chat channel, or the /whisper chat channel. As Amelia gains familiarity with these cultural norms, she uses them to gain a certain degree of success in creating and maintaining online friendships with fellow adventurers. Below we see the second half of a conversation that began using the /say channel two days prior and continues below using the newly-mastered /whisper channel:

Amelia Chat Excerpt 3

Amelia Demonstrates Communicative Competence

A) 00:41:15 [Elroid] whispers: si	A) 00:41:15 [Elroid] whispers: yes
B) 00:41:24 [Elroid] whispers: i am musician	B) 00:41:24 [Elroid] whispers: I am musician
C) 00:41:38 [Elroid] whispers: drums	C) 00:41:38 [Elroid] whispers: drums
D) 00:41:49 To [Elroid]: oo que me gusta drums:)	D) 00:41:49 To [Elroid]: oo that I like the drums :)
E) 00:41:56 [Elroid] whispers: sii	E) 00:41:56 [Elroid] whispers: yess
F) 00:42:02 To [Elroid]: hablas ingles?	F) 00:42:02 To [Elroid]:you speak English?

G) 00:42:10 [Elroid] whispers: so so

H) 00:42:27 [Elroid] whispers: mas o menos

I) 00:42:40 To [Elroid]: oh en escuela apender?

J) 00:43:13 To [Elroid]: tiene sentido?

K) 00:43:27 To [Elroid]: mi espanol mal:(

L) 00:44:11 To [Elroid]: hola?

M) 00:44:18 [Elroid] whispers: you're a beginner in this game?

N) 00:44:26 To [Elroid]: si:)

O) 00:44:29 [Elroid] whispers: aaa

P) 00:44:40 To [Elroid]: tengo un "mage" tambien

Q) 00:44:43 [Elroid] whispers: aaa

R) 00:44:52 [Elroid] whispers: level?

S) 00:44:55 To [Elroid]: pero me gusta elfo de sangra mejor

T) 00:45:00 [Elroid] whispers: si

U) 00:45:12 To [Elroid]: estas haciendo una mision?

V) 00:45:15 [Elroid] whispers: si

W) 00:45:31 To [Elroid]: necesita ayuda?

X) 00:45:36 [Elroid] whispers: no gracias

G) 00:42:10 [Elroid] whispers: so so

H) 00:42:27 [Elroid] whispers: more or less

I) 00:42:40 To [Elroid]: oh (you learn) in school?

J) 00:43:13 To [Elroid]: does that make sense?

K) 00:43:27 To [Elroid]: my Spanish bad:(

L) 00:44:11 To [Elroid]: hello?

M) 00:44:18 [Elroid] whispers: you're a beginner in this game?

N) 00:44:26 To [Elroid]: yes:)

O) 00:44:29 [Elroid] whispers: aaa

P) 00:44:40 To [Elroid]: I have a "mage" also

Q) 00:44:43 [Elroid] whispers: aaa

R) 00:44:52 [Elroid] whispers: level?

S) 00:44:55 To [Elroid]: but I like Blood Elf more

T) 00:45:00 [Elroid] whispers: yes

U) 00:45:12 To [Elroid]: are you doing a quest?

V) 00:45:15 [Elroid] whispers: yes

W) 00:45:31 To [Elroid]: do you need help?

Y) 00:45:40 To [Elroid]: ok Z) 00:45:46 [Elroid] whispers: fue un placer conocerte AA) 00:46:08 To [Elroid]: :) mucho gusto BB) 00:46:10 [Elroid] whispers: nice to meet you CC) 00:46:12 To [Elroid]: adios	X) 00:45:36 [Elroid] whispers: no thanks Y) 00:45:40 To [Elroid]: ok Z) 00:45:46 [Elroid] whispers: it was a pleasure to meet you AA) 00:46:08 To [Elroid]: :) nice to meet you BB) 00:46:10 [Elroid] whispers: nice to meet you CC) 00:46:12 To [Elroid]: bye

In this sample above, Amelia demonstrates her communicative competence: 1) Amelia conforms to the culturally preferred /whisper channel to continue a personal conversation (which is also necessary, as she is at a distance) and 2) she uses the Social Tab UI element, which allows her to quickly contact this friend; 3) she makes a bid to maintain conversation in line L; 4) when asked if she was new at the game, Amelia concedes, but also references her other character, thereby demonstrating a greater level of familiarity with the game than would otherwise be believed, with the intent to avoid driving away this friend/questing partner; 5) in line U Amelia shifts conversation back to the goal-directed collaborative action of quests, hopeful that she can extend conversation through joint play. In addition to demonstrating her communicative competence, this is an example of how MMOG expertise mediates the MMOG experience; as Amelia gains mastery of game elements (e.g., chat channels, friend's lists, quests, etc.), she uses these features as part of her MMOG toolkit, with the purpose of attracting and interacting with other NSPs. While it doesn't work out for Amelia in this instance (i.e., Elroid leaves the

conversation), this sample demonstrates her growing MMOG expertise, which in turn increases her communicative competence and affords her increased opportunities for NSP interaction.

Andrew Affordance 2

I return to the forum referenced above, where Andrew returns the day after his initial posting to review responses. Andrew acknowledges the responses he has received and "bumps" the thread, which essentially keeps the thread alive and in prominent display in the forum.

"Gracias para la ayuda! Juego en Quel'thalas!"

"Thanks for the help! I play on Quel'thalas!"

Thread bumping is not unique to MMOG or language forums; however, it is a noteworthy example of communicative competence here because Andrew returns to his forum post, reads the responses, and 1) appropriately acknowledges his respondents and 2) bumps the thread - both acts intended to keep discussion rolling, increasing his opportunities for Spanish interaction. Referencing his server, "Quel'thalas", Andrew is inviting any of the forum posters to join him in play, which takes the discussion from the asynchronous forums into game world, which provides many other types of interaction between Andrew and NSPs.

Emilio Affordance 2

In the second week of gameplay, Emilio was introduced into *Bananeros*, a well-known guild on the Spanish server with many guild members from across Latin America who communicate almost exclusively in Spanish. Much of Emilio's early participation in the new guild chat consisted of nondescript bids for interaction through short utterances such as greetings and expressions of appreciation (e.g., "grats", an abbreviation for congratulations). However, within the context of the shared guild space, these utterances were sufficient for establishing rapport with other members of the guild, which then allowed Emilio to engage in slightly more

robust communicative exchanges with these players. The following excerpt, from week 5 of

gameplay, highlights how Emilio builds on his early bidding strategy and begins to develop

communicative competence and establish his identity within this new context.

Emilio Chat Excerpt 1

Emilio Begins to Participate in Guild Discussion

A) 18:12:30 [Magabanal]: [Yelmo de cuero de Gladiador furioso]	A) 18:12:30 [Magabanal]: [Leather Helm of the Furious Gladiator]
B)18:12:43 [Emilio]: eso es muy bien	B) 18:12:43 [Emilio]: That's really good
C)18:12:48 [Magabanal]: =F	C) 18:12:48 [Magabanal]: =F
D) 18:12:58 [Magabanal]: pero me falta poner mejores gemas	D) 18:12:58 [Magabanal]: I just need to put in better gems
E) 18:13:00 [Magabanal]: =(	E) 18:13:00 [Magabanal]:=(
F) 18:13:06 [Magabanal]: no tengo oro x hacer full BG	F) 18:13:06 [Magabanal]:I don't have gold x to do a full (Battleground)
G) 18:13:11 [Emilio]: lol	G) 18:13:11 [Emilio]:lol

Note. [Leather Helm of the Furious Gladiator] *in Line A. refers to a powerful piece of armor that players can obtain by defeating other players in ranked battles. It appears in brackets and in English because the text is automatically inserted into the chat window when the player presses a specific combination of keyboard keys and selects the item.*

In Line B, Emilio comments on another guild member's recent acquisition of a powerful

piece of equipment. It is worth noting that it takes Emilio a full thirteen seconds to decide

whether or not to participate in the discussion. In spite of the delay, by expressing his approval of

the equipment, Emilio is able to establish his expertise as a gamer through his ability to

distinguish between high and low level equipment. Then, he does not re-enter conversation for

another eighteen seconds, when he simply uses the acronym "lol" (laugh out loud) to express that

he finds the conversation humorous and to demonstrate his active participation and interest in

this exchange. Although a great deal of SLA research has likened synchronous chat systems to

conversational exchanges (see, e.g., Kern, 1995; Pelletieri, 2000), it is important to note that

communicative competence in the context of WoW guild chat differs from face to face

communication in significant ways. First and foremost, because players can participate in guild

chat while they are still actively engaged in navigating the game world, interactants generally

recognize that chatting is secondary to any game action in which a player might be engaged.

Thus, while a significant pause might seem out of place in a face to face conversation or even in

another form of synchronous chat, it is a perfectly acceptable aspect of WoW guild chat, as

conversations may be interrupted while players battle wayward beasts or stop to gather herbs

with healing properties. Along similar lines, even native speaker gamers use abbreviated and

orthographically and stylistically non-standard language, in addition to simple typographical

errors, often because they are attending to multiple and simultaneous activities within the game.

For language learners, this affords valuable leeway for pauses to formulate utterances and

inculcates an acceptance of errors, qualities that may facilitate the performance of

communicative competence within this context.

In spite of the community emphasis on communicative competence, favoring function

over form, our data suggests that not all language learners take advantage of this affordance. For

example, observations of another participant in the same study 1 cohort, Silvania, revealed that

she made limited contributions to the group chat, and these tended to be in complete,

grammatically correct utterances. Her participation via the voice program *Ventrilo* showed

similar patterns. Interestingly, although Silvania's participation in text and voice chat was

limited, her journal entries indicate that she perceived communication via these media as opportunity and motivation for improving both her speaking and writing skills. In addition, in the following interview excerpt, she describes how immersion in these media fosters her language use when she writes, "I'm more likely to go on and like, actually go on and still kind of maybe speak Spanish or kinda be thinking in Spanish for a while afterward" (2010). Thus, even though observations suggest that Silvania's communication was limited within the game, she perceived the various communication channels as an affordance for her language development.

Affordance 3: Promotes goal-directed, collaborative action between experts and novices

A third affordance that emerged in the data was how the WoW context *promotes goal-directed, collaborative action between experts and novices.* This refers to both expert and novice Spanish speakers, as well as expert and novice gamers. Peterson's (2010) review identifies a related affordance in how games provide "access to diverse groups of interlocutors, including native speakers" (*op. cit.*: 432); however, this analysis suggests that there may be an important affordance for language learning that goes beyond access to varied interlocutors to include how the game space provides multiple contexts in which experts and novices interact, which opens up opportunities for collaboration between less and more experienced gamers and language users. Moreover, the data suggest that this affordance had distinct implications for participants' identities both as Spanish speakers and as gamers.

Adam Affordance 3

A general characteristic of Adam's play is a focus on social interactions specifically for accomplishing game objectives. In interviews he said, "… it's fun (playing with my best friends) … we push each other and try to do better, get more levels, than each other."

Below is an excerpt typical of his play with more expert NSPs:

Adam Chat Excerpt 1

Adam Goal-Directed Collaborative Action

A) 16:54:42 [Sadot]: hola	A) 16:54:42 [Sadot]: hello
B) 16:54:47 [Adam]: hola	B) 16:54:47 [Adam]: hello
C) 16:54:51 [Sadot]: lobos?	C) 16:54:51 [Sadot]: wolves?
D) 16:55:35 Dire Wolf goes into a frenzy!	D) 16:55:35 Dire Wolf goes into a frenzy!
E) 16:55:45 [Adam]: si	E) 16:55:45 [Adam]: yes
Dire Wolf goes into a frenzy!	*Dire Wolf goes into a frenzy!*
F) 16:56:26 [Adam]: gracias	F) 16:56:26 [Adam]: thanks
G) 16:56:45 [Sadot]: termine	G) 16:56:45 [Sadot]: done
H) 16:56:48 [Sadot]: cuantos te faltan?	H) 16:56:48 [Sadot]: how many more do you need?
I) 16:57:18 [Sadot]: 4	I) 16:57:18 [Sadot]: 4
J) 16:57:36 [Adam]: 4	J) 16:57:36 [Adam]: 4
K) 16:59:33 [Felix]: ola	K) 16:59:33 [Felix]: hello
L) 16:59:48 [Adam]: gracias amigo	L) 16:59:48 [Adam]: thanks friend
M) 16:59:53 [Sadot]: hola	M) 16:59:53 [Sadot]: hello
N) 16:59:56 [Sadot]: algo mas?	N) 16:59:56 [Sadot]: any more?
O) 16:59:57 [Felix]: hola	O) 16:59:57 [Felix]: hello
P) 16:59:58 [Felix]: !	P) 16:59:58 [Felix]: !
Q) 17:00:03 [Sadot]: =O	Q) 17:00:03 [Sadot]: =O
R) 17:00:06 [Sadot]: te faltan 10	R) 17:00:06 [Sadot]: you need 10

S) 17:00:31 [Sadot]: pones el mouse en el lobo y ahi sale	S) 17:00:31 [Sadot]: put your mouse on the wolf and you'll see

Adam is greeted by Sadot who offers Adam aid in a quest to kill Dire Wolves. Another nearby player on the same quest approaches and greets Adam and Sadot in line O. Sadot teaches Felix about tracking quest objectives in lines R and S. This example of goal-directed collaborative action between experts and novices is a common occurrence in WoW. Adam's status also as a novice Spanish speaker does not hinder his experience; his language ability (though not detected in this instance) is irrelevant to play, whereas interaction outside of this virtual environment may be more limited due to language barriers. Gaining access to more expert others, in both MMOG and language ability, is desirable as it can lead to greater engagement in the virtual space, as well as increased opportunities for language exposure and development, as we will see in the following examples.

Amelia Affordance 3

As an illustration of this point, we examine how bids for interaction are made even less threatening because of the collaborative nature of MMOGs. It is not uncommon for players to seek help from nearby adventurers, as some quests can be tricky (i.e., quests may require the aid of another player, or contain elements that are confusing for new players). Players often seek help from others who are at the same level and who appear to be participating in the same quest line. Below we see Amelia approached by a NSP for help on an introductory quest in the Blood Elf starter zone:

Amelia Chat Excerpt 4

A)	23:18:13 [Juanted]: hola	A)	23:18:13 [Juanted]: hello
B)	23:18:20 [Juanted]: una pregunta	B)	23:18:20 [Juanted]: a question
C)	23:18:31 [Amelia]: hola	C)	23:18:31 [Amelia]: hello
D)	23:18:35 [Juanted]: que es sed insaciable	D)	23:18:35 [Juanted]: what is "sed insaciable"
E)		E)	23:18:44 [Juanted]: what do I have to do
F)	23:18:44 [Juanted]: que tengo que hacer	F)	23:19:10 [Juanted]: hello
G)	23:19:10 [Juanted]: hola	G)	23:23:49 [Amelia]: hello
H)	23:23:49 [Amelia]: hola	H)	23:23:54 [Juanted]: hello
I)	23:23:54 [Juanted]: hola	I)	23:24:03 [Amelia]: where is lynx?
J)	23:24:03 [Amelia]: donde esta lynx?	J)	23:24:13 [Juanted]: who
K)	23:24:13 [Juanted]: quien	K)	23:24:23 [Juanted]: I don't know
L)	23:24:23 [Juanted]: no se 23:24:28 [Amelia]: gracias	L)	23:24:28 [Amelia]: thanks

This exchange may not appear to be significant on the surface; however, these small interactions are common, and as they continue to happen over time, add to an atmosphere where communication, whether interpersonal or game-driven, is encouraged and expected. It is noteworthy that the MMOG novice Amelia is asked a quest-related question, even though there is no way for Juanted to tell if she is able to provide any useful information. Juanted appears to be new to the quests in the Blood Elf starter zone, but could very well be a veteran WoW player, having multiple playthroughs in the starter zones for other races. These common interactions highlight how goal-directed collaborative action is a key affordance of MMOG spaces, creating

opportunities for communicative interaction between players, regardless of expert or novice status.

Below we see another example of goal-directed collaborative action between Amelia and NSP Pika:

Ameila Chat Excerpt 5

A) 22:23:24 [Pika]: hola	A) 22:23:24 [Pika]: hello
B) 22:23:30 [Amelia]: que haces?	B) 22:23:30 [Amelia]: what are you
C) 22:23:39 [Pika]: misioness amiga y tu	C) doing?
D) 22:23:59 [Amelia]: a mi tambien	D) 22:23:39 [Pika]: quests friend and you
E) 22:24:14 [Pika]: o q bien eres nueva??	E) 22:23:59 [Amelia]: (me) too
F) 22:24:27 [Pika]: o tienes rato jugando ??	F) 22:24:14 [Pika]: o great are you new??
	22:24:27 [Pika]: or have you played for
G) 22:24:44 [Amelia]: no comprendo? espanol pequeno	G) a while??
	22:24:44 [Amelia]: I don't understand?
H) 22:24:55 [Amelia]: habla ingles	H) little Spanish
I) 22:25:07 [Pika]: ooo yo no hablo inglis jeje	I) 22:24:55 [Amelia]: you speak English
	22:25:07 [Pika]: ooo I don't speak
J) 22:25:31 [Amelia]: necesita ayuda	J) English hehe
K) 22:25:41 [Pika]: yo no y tu	K) 22:25:31 [Amelia]: you need help
L) 22:26:09 [Amelia]: por favor?	L) 22:25:41 [Pika]: I don't and you
M) 22:26:15 [Pika]: eres estandar	M) 22:26:09 [Amelia]: please?
N) 22:26:20 [Pika]: ok bamos	N) 22:26:15 [Pika]: are you standard
O) 22:27:22 [Amelia]: muchas gracias	O) 22:26:20 [Pika]: ok let's go

P)	22:27:46 [Pika]: q tienes q aser??	P)	22:27:22 [Amelia]: thanks a lot
			22:27:46 [Pika]: what do you have to
Q)	22:28:23 [Amelia]: si	Q)	do??
R)	22:29:48 [Amelia]: muchas gracias	R)	22:28:23 [Amelia]: yes
S)	22:29:55 [Pika]: de donde eres amiga	S)	22:29:48 [Amelia]: thanks a lot
			22:29:55 [Pika]: where are you from
T)	22:30:01 [Pika]: usa	T)	friend
U)	22:30:16 [Amelia]: california	U)	22:30:01 [Pika]: usa
V)	22:30:20 [Amelia]: y tu?	V)	22:30:16 [Amelia]: california
W)	22:30:26 [Pika]: oo de mexico	W)	22:30:20 [Amelia]: and you?
X)	22:30:39 [Pika]: jeje	X)	22:30:26 [Pika]: oo from mexico
Y)	22:30:44 [Amelia]: :)	Y)	22:30:39 [Pika]: hehe
Z)	22:31:47 [Pika]: q mas tienes q aser	Z)	22:30:44 [Amelia]: :)
			22:31:47 [Pika]: what else do you have
AA)	22:31:59 [Amelia]: no comprendo :(	AA)	to do
			22:31:59 [Amelia]: I don't understand
BB)	22:32:09 [Pika]: adonde???	BB)	:(
CC)	22:32:10 [Amelia]: donde esta elwynn	CC)	22:32:09 [Pika]: where???
	forest?		22:32:10 [Amelia]: where is elwynn
DD)	22:32:33 [Amelia]: ingles?	DD)	forest?
EE)	22:32:36 [Pika]: en villadora	EE)	22:32:33 [Amelia]: English?
FF)	22:32:45 [Amelia]: gracias	FF)	22:32:36 [Pika]: in (Goldshire)
GG)	22:32:53 [Pika]: de nada amiga	GG)	22:32:45 [Amelia]: thanks

HH) 22:33:21 [Amelia]: :)	HH) 22:32:53 [Pika]: don't mention it friend 22:33:21 [Amelia]: :)

     In chat excerpt 6, Amelia reaches out to a nearby player and interpersonal conversation is weaved into talk about game objectives. This was observed to be quite common on this Spanish server, when conversations were held in the /say channel.

     During interviews, Amelia reported spending over an hour with this player, with both players adding each other to their respective friend's lists. They interacted more in the following days, building on interpersonal conversation in addition to game-related conversation.

Amelia Excerpt 6

A) 00:12:30 [Amelia]: hola	A) 00:12:30 [Amelia]: hello
B) 00:13:02 [Amelia]: hola	B) 00:13:02 [Amelia]: hello
C) 00:13:17 [Gantz]: hola como estas¡¡	C) 00:13:17 [Gantz]: hello how are you¡¡
D) 00:13:30 [Amelia]: bien gracias y tu?	D) 00:13:30 [Amelia]: good thanks and you?
E) 00:13:41 [Gantz]: bn tambn q haciendo¡¡	E) [00:13:41 Gantz]: good also what's up¡¡
F)	F) 00:13:59 [Amelia]: what is your name?
G) 00:13:59 [Amelia]: como te llamas?	G) 00:14:10 [Gantz]: alan and you¡¡
H) 00:14:10 [Gantz]: alan y tu¡¡ 00:14:23 [Amelia]: monica, mucho	H) 00:14:23 [Amelia]: monica, nice to meet you
I) gusto	I) 00:15:12 [Gantz]: how old are you

J)		J)	00:15:25 [Amelia]: 19 and you?
K)	00:15:12 [Gantz]: cuantos años tienes	K)	00:15:31 [Gantz]: 21¡¡
L)	00:15:25 [Amelia]: 19 y tu?	L)	00:15:45 [Gantz]: what are you up to¡¿
M)	00:15:31 [Gantz]: 21¡¡	M)	00:15:58 [Amelia]: quests
N)	00:15:45 [Gantz]: q andas haciendio¡¿	N)	00:16:05 [Amelia]: where are you from?
O)	00:15:58 [Amelia]: misions	O)	00:16:07 [Gantz]: well it doesn't matter
	00:16:05 [Amelia]: de donde eres?		if your name is like my mom¡¿
P)	00:16:07 [Gantz]: bno no impor te	P)	00:16:14 [Amelia]: hehe
Q)	llamas como mi mama¡¿	Q)	00:16:23 [Gantz]: from D.F. but I live in
	00:16:14 [Amelia]: hehe		leon
R)	00:16:23 [Gantz]: de l df pero vivo en	R)	00:16:29 [Gantz]: and you¡¡
S)	leon	S)	00:17:23 [Amelia]: I speak a little
	00:16:29 [Gantz]: y tu¡¡		Spanish, sorry
T)	00:17:23 [Amelia]: hablo poco espanol	T)	[Gantz]: where are you from¡¡
U)	lo siento	U)	[Amelia]: florida:
	00:17:32 [Gantz]: de don ers¡¡		
	00:17:40 [Amelia]: florida:)		

Emilio Affordance 3

In the latter portion of his time in study 1, Emilio's communicative competence has improved somewhat, and he has achieved significant success in the game, as evidenced by the level of his character (80, which was the highest level possible during his time in the study) and his membership in a highly competitive and high status raiding guild. A *raid* is a large group (ten

or more) of players grouped together to defeat a particularly powerful creature in the game. Emilio's membership in such a guild is significant because raiding requires not only skill with the game mechanics, but also with using language to coordinate a great deal of fast-paced activity during the raid.

In the following excerpt, we see further evidence of Emilio's success within the game, as another player seeks him out to help with "the daily," or repeatable quests that guild members complete each day to gather supplies and money that the guild needs for raiding.

Emilio Guild Chat Excerpt 3

Emilio's Communicative Competence

A) 7:19:36 [Jodal]: Emilio	A) 7:19:36 [Jodal]: Emilio
B) 07:19:54 [Emilio]: heyo	B) 07:19:54 [Emilio]: heyo
C) 07:20:00 [Jodal]: hacemos al diaria?	C) 07:20:00 [Jodal]: (want to) do the daily?
D) 07:20:06 [Emilio]: si lol	D) 07:20:06 [Emilio]: yes lol
E) 07:20:17 [Jodal]: dale cuando acabes en winter me avisas	E) 07:20:17 [Jodal]:(let's go) when you finish in (Wintergrasp) let me know
F) 07:20:22 [Emilio]: jeje	F) 07:20:22 [Emilio]: haha
G) 07:20:35 [Emilio]: parece que estara durmiendo en dos horas	G) 07:20:35 [Emilio]: it seems that (you) will be sleeping in two hours
H) 07:20:39 [Jodal]: no hay prisa ando pescando	H) 07:20:39 [Jodal]: there's no rush I'm fishing
I) 07:21:40 [Jodal]: ando sacando peces para icc10 del grupo 3	I) 07:21:40 [Jodal]: I'm catching fish for ICC 10 group 3
J) 07:21:54 [Emilio]: ah ok	J) 07:21:54 [Emilio]: ah ok

K) 07:22:01 [Jodal]: oye	K) 07:22:01 [Jodal]: (hey)
L) 07:22:10 [Jodal]: tu puedes raidear de 9 a 11 o 12?	L) 07:22:10 [Jodal]: can you raid from 9 to 11 or 12?
M) 07:22:12 [Emilio]: soloemente estoy subiendo habilidade con pescando	M) 07:22:12 [Emilio]: I'm just raising my fishing skill
N) 07:22:33 [Emilio]: y buscando algo [Glacial Salmon]	N) 07:22:33 [Emilio]: and looking for (some) [Glacial Salmon]

It is worth noting here that Emilio's journal entries suggest that his enjoyment of WoW is mediated by his social interactions and subsequent success within the game. Although he has not made drastic improvements in his Spanish ability since the beginning of the study, this exchange highlights advancements in his communicative competence and strategies that he uses to maintain rapport. For example, Emilio quickly and affirmatively responds to Jodal's request to do the daily. Moreover, he indexes his status as an experienced and knowledgeable member of the group by qualifying his agreement with the addition of "lol," which serves as a humorous way of marking the tedious nature of these daily quests. In order to keep conversation flowing, Emilio uses simple utterances, such as "hahaha." This strategy also allows Emilio to take a little more time to respond with a joke in line G when he suggests that Jodal will likely fall asleep before he is able to complete the daily. Notice that Jodal, a native Spanish speaker, continues conversation at a much more natural pace, with pauses no longer than the time it takes to type his responses. However, Emilio has developed strategies that allow him to maintain normal conversation patterns, while also creating time for him to come up with meaningful contributions to conversation. This excerpt is an apt illustration of how the focus on goal-directed,

collaborative action (in this case, working together to complete the daily for the good of the guild) affords opportunity for Emilio to interact with a native Spanish speaker, not only in this chat exchange, but also when they or their avatars head out together to complete the daily.

In Excerpt 4, we see another illustration of how the guild space provides a point of connection and a shared purpose that promotes interactions between Emilio and a native Spanish speaker who is a less experienced gamer. In spite of his limited language skills, Emilio is able to take on a mentorship role in this exchange. To provide some context for the excerpt, when guild members appear online, other players are alerted to this fact by a user-interface pop up announcing that the guild member has logged onto the game. Draliana, a player who has just logged on, is greeted by Emilio in the guild chat channel, and they proceed to have a conversation about a specific quest.

Emilio Guild Chat Excerpt 4

Emilio Displays Expertise

A) 21:48:50 [Emilio]: hola Draliana	A) 21:48:50 [Emilio]: hello Draliana
B) 21:49:15 [Draliana]: hola	B) 21:49:15 [Draliana]: hello
C) 21:49:37 [Emilio]: que pasa?	C) 21:49:37 [Emilio]: what's up?
D) 21:49:47 [Emilio]: estas matando lord everblaze?	D) 21:49:47 [Emilio]: are you killing lord everblaze?
E) 21:49:57 [Draliana]: no mucho, solo esperando q me de lo q tira	E) 21:49:57 [Draliana]: not much, just hoping he gives me what he drops
F) 21:50:05 [Draliana]: se glicheo por mi lag y no me lo quiere dar	F) 21:50:05 [Draliana]: it glitched because of my lag and doesn't want to give it to me
G) 21:50:12 [Draliana]: ya lo mate 4 veces	G) 21:50:12 [Draliana]: I already killed him 4

H) 21:50:13 [Emilio]: lol	times
I) 21:50:19 [Emilio]: lo siento	H) 21:50:13 [Emilio]: lol
J) 21:50:38 [Draliana]: me choca, pero ya sabes lo q dicen la 5ta es la vencida	I) 21:50:19 [Emilio]: sorry
K) 21:50:59 [Draliana]: al parecer no	J) 21:50:38 [Draliana]: it's irritating, but you know what they say the 5ta is the win
L) 21:51:31 [Emilio]: 5ta?	K) 21:50:59 [Draliana]: it seems not
M) 21:51:34 [Emilio]: jej	L) 21:51:31 [Emilio]: 5ta?
N) 21:51:40 [Emilio]: que es 5ta	M) 21:51:34 [Emilio]: jej
O) 21:51:47 [Draliana]: alguien para [For The Alliance!]?	N) 21:51:40 [Emilio]: what is 5ta
P) 21:51:52 [Emilio]: si!	O) 21:51:47 [Draliana]: anyone for [For The Alliance!]?
Q) 21:51:55 [Emilio]: mio	P) 21:51:52 [Emilio]: yes!
R) 21:52:00 [Draliana]: quinta vez q trato de matarlo	Q) 21:51:55 [Emilio]: me
S) 21:52:24 [Emilio]: matar lord everblaze?	R) 21:52:00 [Draliana]: fifth time that I try to kill him
T)21:52:34 [Draliana]: si hahahhahaha	S) 21:52:24 [Emilio]: kill lord everblaze?
U) 21:52:40 [Emilio]: en serio?	T)21:52:34 [Draliana]: yes hahahhahaha
V) 21:52:40 [Emilio]: uhh	U) 21:52:40 [Emilio]: seriously?
W) 21:52:44 [Draliana]: voy a tener q tratar maniana	V) 21:52:40 [Emilio]: uhh
X) 21:53:04 [Emilio]: a matar lord everblaze? uhh creo que es muy facil	W) 21:52:44 [Draliana]: I'm going to have to try tomorrow
Y) 21:53:21 [Draliana]: ya lo mate 6 veces lol	X) 21:53:04 [Emilio]: to kill lord everblaze? uhh I think it's very easy

pero no me da el fuego	Y) 21:53:21 [Draliana]: I already kill him 6
Z) 21:53:29 [Emilio]: oh	times lol but he doesn't give me the fire
AA) 21:53:31 [Emilio]: umm	Z) 21:53:29 [Emilio]: oh
BB) 21:53:33 [Draliana]: alguien quiere ir	AA) 21:53:31 [Emilio]: umm
a [For The Alliance!]?	BB) 21:53:33 [Draliana]: anyone for [For The
CC) 21:53:37 [Emilio]: debes abandonar	Alliance!]?
DD) 21:53:38 [Emilio]: el mision	CC) 21:53:37 [Emilio]: you should abandon
EE) 21:53:43 [Emilio]: y aceptar otra vez	DD) 21:53:38 [Emilio]: the quest
FF) 21:53:47 [Draliana]: ouch esta bn lejos	EE) 21:53:43 [Emilio]: and accept again
GG) 21:53:54 [Emilio]: despues debe esta bien	FF) 21:53:47 [Draliana]: ouch it is really far
HH) 21:54:03 [Draliana]: ojala	GG) 21:53:54 [Emilio]: after it should be good
	HH) 21:54:03 [Draliana]: I hope so

This excerpt reveals Emilio's growing familiarity with vocabulary, expressions, and phrases that facilitate effective communication in this space. For example, he uses brief phrases, such as "que pasa?/ What's up?" and "lo siento/ I'm sorry" to engage Draliana in conversation, as well as terms that are relevant to gameplay, such as "mision/ quest" to convey meaningful information. In lines L and N, this exchange also provides an opportunity for Emilio to ask for and receive clarification of a Spanish abbreviation (5ta for quinta) that he does not understand.

In Lines CC-EE, Emilio offers a solution to Draliana's problem. Not only does he accomplish this rather fluidly, with a maximum of five seconds between each utterance, but he also contributes valuable information to the conversation. Thus, rather than merely making bids for interaction or using brief and formulaic utterances to establish rapport or respond to requests,

he is now a primary participant in exchanges, and in spite of his status as a novice Spanish user, he asserts his position as an expert gamer and a knowledgeable resource in the guild.

Andrew Affordance 3

What follows is a large sample from one of Andrew's play sessions, where he speaks up in guild chat. There are two parts to this chat sample, which illustrate how WoW promote goal-directed collaborative action.

Andrew Guild Chat Excerpt 1

Andrew Takes Initiative & Displays Expertise

A) 21:38:41 [Andrew]: hola amigos!	A) 21:38:41 [Andrew]: hello friends!
B) 21:39:30 [Holytankbabe]: holas	B) 21:39:30 [Holytankbabe]: hiya
C) 21:39:53 [Andrew]: nada y tu?	C) 21:39:53 [Andrew]: nothing and you?
D) 21:41:23 [Chico]: lol	D) 21:41:23 [Chico]: lol
E) 21:41:30 [Chico]: estoy configurando el bartender	E) 21:41:30 [Chico]: I am configuring bartender
F) 21:41:33 [Chico]: te ahorra mucho tiempo	F) 21:41:33 [Chico]: it saves you a lot of time
G) 21:41:35 [Chico]: es muy util	G) 21:41:35 [Chico]: it's very useful
H) 21:41:42 [Andrew]: si	H) 21:41:42 [Andrew]: yes
I) 21:41:44 [Holytankbabe]: bartender?	I) 21:41:44 [Holytankbabe]: bartender?
J) 21:41:48 [Holytankbabe]: ke hace eso?	J) 21:41:48 [Holytankbabe]: what does it do?
K) 21:41:58 [Andrew]: bartender esta dificil pero me gusta	K) 21:41:58 [Andrew]: bartender is hard but I like it

L) 21:42:06 [Andrew]: bartender esta un addon	L) 21:42:06 [Andrew]: bartender is an addon
M) 21:42:07 [Chico]: seh, es para bindear las teclas	M) 21:42:07 [Chico]: yep, it's to bind keys
N) 21:42:09 [Andrew]: para ui	N) 21:42:09 [Andrew]: for ui (user interface)
O) 21:42:25 [Andrew]: bartender esta mi favorite	O) 21:42:25 [Andrew]: bartender is my favorite
P) 21:42:25 [Holytankbabe]: hace macros?	P) 21:42:25 [Holytankbabe]: you make macros?
Q) 21:42:30 [Andrew]: no	Q) 21:42:30 [Andrew]: no
R) 21:42:41 [Holytankbabe]: kk	R) 21:42:41 [Holytankbabe]: kk
S) 21:42:52 [Chico]: No, pero podes asignarle teclas a los addons	S) 21:42:52 [Chico]: No, but you can assign keys to the addons
T) 21:42:54 [Chico]: eso es bueno	T) 21:42:54 [Chico]: that is good
U) 21:42:54 [Andrew]: hace keybinds y juego con las teclas	U) 21:42:54 [Andrew]: (I) make keybinds and I play with the keys
V) 21:43:09 [Chico]: te ahorras mucho tiempo	V) 21:43:09 [Chico]: it saves you a lot of time
W) 21:43:10 [Holytankbabe]: hasta mañana, e cuidan!!	W) 21:43:10 [Holytankbabe]: until tomorrow, take care!!
X) 21:43:18 [Andrew]: hasta manana amigo	X) 21:43:18 [Andrew]: until tomorrow friend

Like Emilio, a great part of Andrew's enjoyment of WoW comes from his social interactions and success in the game. In the excerpt above, the novice Spanish speaker Andrew is able to make a valuable contribution to the guild, increasing his status as an expert WoW player and information resource, which in turn grants him greater opportunities for interaction, as seen in the extensive exchange below:

Andrew Guild Chat Excerpt 2

Andrew's Language Deficiencies Overlooked

A) 21:49:57 [Chico]: de què parte de america eres?	A) 21:49:57 [Chico]: what part of america are you from?
B) 21:50:14 [Andrew]: soy de irvine california	B) 21:50:14 [Andrew]: I am from irvine california
C) 21:50:32 [Chico]: oh, yo amo el punk de california, no sé si conoces bandas jaja	C) 21:50:32 [Chico]: oh, yo I love the punk from california, I don't know if you know bands jaja
D) 21:51:11 [Andrew]: SI	D) 21:51:11 [Andrew]: YES
E) 21:51:27 [Andrew]: yo amo punk tambien, conozco muchos bandas	E) 21:51:27 [Andrew]: I love punk also, I know a lot of bands
F) 21:51:33 [Chico]: excelente	F) 21:51:33 [Chico]: excellent
G) 21:51:38 [Chico]: amo nofx jaja	G) 21:51:38 [Chico]: I love NOFX jaja
H) 21:51:41 [Andrew]: prefierio metal	H) 21:51:41 [Andrew]: I prefer metal
I) 21:51:54 [Chico]: yo tengo una banda de metalcore	I) 21:51:54 [Chico]: I have a metalcore band

J) 21:52:04 [Andrew]: quiero nofx	J) 21:52:04 [Andrew]: I love nofx
K) 21:52:10 [Andrew]: que?!	K) 21:52:10 [Andrew]: what?!
L) 21:52:15 [Andrew]: querio escuchar!	L) 21:52:15 [Andrew]: I want to hear!
M) 21:52:36 [Chico]: estamos ensayando desde hace poco, pero cuando tenga algo grabado te hago escuchar	M) 21:52:36 [Chico]: we just started practicing, but when we have something recorded I'll have you listen
22 minutes of conversation later…	*22 minutes of conversation later…*
N) 22:14:04 [Chico]: Juan, are you here?	N) 22:14:04 [Chico]: Juan, are you here?
O) 22:14:58 [Andrew]: si	O) 22:14:58 [Andrew]: yes
P) 22:15:02 [Andrew]: q pasa amigo?!!?	P) 22:15:02 [Andrew]: what's up friend?!!?
Q) 22:16:23 [Chico]: haha nada, solo preguntaba	Q) 22:16:23 [Chico]: haha nothing, just asking
R) 22:16:35 [Chico]: si necesitas saber algo de español solo preguntame :)	R) 22:16:35 [Chico]: if you need to know anything about Spanish just ask me :)

What started out as conversation based on gameplay elements turns into an extensive interpersonal discussion that carried on beyond WoW. Andrew recounts this experience in his journal:

Andrew Journal Entry 1

Andrew excited about his lengthy and personally meaningful interaction with Chico

1. leer mi chat log!	1. read my chat log!
2. Hablo con un persona de argentina, y	2. I spoke with a person from Argentina, and I

entiendo mucho!!	understood a lot!
3. Se gusta metalcore, y we added each other on facebook.	3. He likes metalcore, and we added each other on facebook.
4. Nos hablando espanol en facebook sobre politics, gaming, y musica!!	4. We spoke in Spanish about facebook, about politics, gaming, and music!!
5. el quiere visitar california.	5. he wants to visit california

Throughout this entry, it is clear that Andrew feels a sense of accomplishment from his recent interaction with Chico. Andrew and Chico became Facebook friends and continued to communicate outside of the virtual space of WoW. Andrew was very excited to share this experience to me in an interview saying, "I've had fun questing and speaking Spanish with people on the server, but it was crazy how much I related with Chico… My Spanish was good enough to communicate and when it wasn't he helped me figure out how to say stuff… We talk on Facebook, it's pretty cool. Now I'm getting even more Spanish practice."

Affordance 4: Values Communicative Practice over Perfection

Contrary to fears of degraded writing ability caused by using abbreviated forms and informal language associated with text and instant messaging, studies have found that this communicative activity has no negative effect on traditional literacy skills; in fact, in many cases, subjects who engaged in such activity have demonstrated higher traditional literacy ability (Plester, Wood, & Bell, 2008; Plester, Wood, & Joshi, 2009; Kemp, 2010). Further research is needed to examine the effects of play in MMOGs like WoW on traditional literacy skills; as described above, communication in WoW resembles SMS text and instant messaging. It is likely that further examination of play in MMOGs like WoW, with its emphasis of communicative

practice over perfection (reinforced by fun, engaging MMOG play) may bear similar results as the aforementioned studies on texting and instant messaging; that is, that those who engage in L2 MMOG play may see an increase in traditional literacy ability. Steinkuehler's (2009) study of L1 play in the MMOG Lineage II describes a variety of traditional literary forms produced by players of the game.

Below we examine how WoW veteran Andrew juggles multiple conversations, demonstrating all three aforementioned affordances, as well as highlighting how attention to proper Spanish form is eschewed in favor of communicative goals.

Andrew Guild Chat Excerpt 2

Andrew Balances Three Conversations

A)	19:24:18 [Zapate] whispers: 5 oros	A)	19:24:18 [Zapate] whispers: 5 gold
B)	19:24:21 To [Zapate]: si	B)	19:24:21 To [Zapate]: yes
C)	19:24:35 [Zapate] whispers: voy	C)	19:24:35 [Zapate] whispers: coming
D)	19:24:50 To [Zapate]: gracias	D)	19:24:50 To [Zapate]: thanks
E)	19:25:01 [Kazuö] whispers: ahi te mande men	E)	19:25:01 [Kazuö] whispers: there I sent it man
F)	19:25:05 [Kazuö] whispers: aprovechalo	F)	19:25:05 [Kazuö] whispers: enjoy it
G)	19:26:53 To [Zapate]: muchos gracias@!!!!!!!	G)	19:26:53 To [Zapate]: thanks a lot@!!!!!!!
H)	19:26:59 [Zapate] whispers: por nada	H)	19:26:59 [Zapate] whispers: no biggie
I)	19:27:14 [Ásuna] whispers: te invitamos a formar parte de nuestra hermandad :D [Death Knight Legend] unete y te	I)	19:27:14 [Ásuna] whispers: we invited you to join our guild :D [Death Knight Legend] join and have fun if you like?

divertiras qieres?

J) 19:27:26 To [Zapate]: esta mucho oro!!! soy de america,

K) 19:27:41 [Zapate] whispers: a como

L) 19:28:48 To [Zapate]: en san diego california, estoy en un clase para videojuegos, estoy Aprenda español de World of Warcraft

M) 19:29:30 To [Ásuna]: no quiero, perdoneme

N) 19:30:16 To [Zapate]: estoy apredado**

O) 19:30:23 To [Zapate]: aprendado**

P) 19:34:00 [Zapate] whispers: me llamo andres soy de costa rica

Q) 19:34:26 To [Zapate]: Costa rica!?!?! ahhh muy interesante, quiero voy un dia

R) 19:34:46 [Zapate] whispers: y eso que juegues en este reino

S) 19:36:15 To [Zapate]: Personas en este reino esta de costa rica?

T) 19:36:32 [Zapate] whispers: este es un reino de latino america

J) 19:27:26 To [Zapate]: that's a lot of gold!!! I am from america,

K) 19:27:41 [Zapate] whispers: huh

L) 19:28:48 To [Zapate]: in san diego california, I am in a class for videogames, I am learning Spanish from World of Warcraft

M) 19:29:30 To [Ásuna]: I don't want to, sorry

N) 19:30:16 To [Zapate]: I am apredado**

O) 19:30:23 To [Zapate]: (learning)**

P) 19:34:00 [Zapate] whispers: my name is juan I am from costa rica

Q) 19:34:26 To [Zapate]: Costa rica!?!?! ahhh very interesting, I want to go one day

R) 19:34:46 [Zapate] whispers: and about you playing on this server

S) 19:36:15 To [Zapate]: People on this server are from costa rica?

T) 19:36:32 [Zapate] whispers: this is a latin american server

Andrew makes mistakes (e.g., spelling, gender agreement, ser vs. estar, etc.), but does not allow these to inhibit his communication, since in MMOGs like WoW, content is valued more than correct language expression. This allows Andrew to gain valuable language practice, without worry about minor details that get in the way of his communicative flow. In interviews, Andrew expressed how he felt at ease in communicating with NSPs in WoW, "because they cared more about what I said than if I said it correctly or not." He also mentioned that when pasting his chatlogs for class, he would see instances where he made mistakes, which he tried to improve upon during subsequent game sessions.

Below is an excerpt of explicit language discussion between Amelia and NSP Dria:

Amelia Chat Excerpt 6

Amelia and Dria Negotiation of Meaning

A) 22:43:13 [Amelia]: "major"	A) 22:43:13 [Amelia]: "major"
B) 22:43:44 [Dria]: no entiendo que es "major"?	B) 22:43:44 [Dria]: I don't understand what is "major"?
C) 22:44:15 [Amelia]: umm es estudias enfocar	C) 22:44:15 [Amelia]: umm it is you study focus
D) 22:44:35 [Amelia]: mi "major" es "business"	D) 22:44:35 [Amelia]: my "major" is "business"
E) 22:44:48 [Amelia]: comprede?	E) 22:44:48 [Amelia]: you understand?
F) 22:44:59 [Dria]: ohh estudio ciencias de la comunicacion para ser un periodista	F) 22:44:59 [Dria]: ohh I study communication sciences to be a journalist

G) 22:45:05 [Amelia]: lo siento mi ingles:/	G) 22:45:05 [Amelia]: sorry my English:/
H) 22:45:14 [Amelia]: ooo mui interesante	H) 22:45:14 [Amelia]: ooo very interesting
I) 22:45:19 [Dria]: tu estudias?	I) 22:45:19 [Dria]: you study?
J) 22:45:28 [Amelia]: negocios?	J) 22:45:28 [Amelia]: negocios?
K) 22:46:01 [Amelia]: como se dice "business" en espanol?	K) 22:46:01 [Amelia]: how do you say "business" in Spanish?
L) 22:46:16 [Dria]: negocios esta bien. suena divertido	L) 22:46:16 [Dria]: negocios is good. sounds fun
M) 22:46:48 [Amelia]: cool :), tranductor es bueno:) te gusta mi pajaro?	M) 22:46:48 [Amelia]: cool :), translator is good :) you like my parrot?
N) 22:47:19 [Dria]: si, me gusta como vuela todo el tiempo *4 minutes of conversation about mounts and Spanish words*	N) 22:47:19 [Dria]: yes, I like how it flies all the time *4 minutes of conversation about mounts and Spanish words*
O) 22:51:54 [Amelia]: necesita ayuda?	O) 22:51:54 [Amelia]: necesita ayuda?
P) 22:51:58 [Amelia]: con misiones?	P) 22:51:58 [Amelia]: con misiones?
Q) 22:52:51 [Dria]: no se	Q) 22:52:51 [Dria]: no se
R) 22:53:12 [Dria]: tu quieres que te ayude o te acompañe?	R) 22:53:12 [Dria]: tu quieres que te ayude o te acompañe?
S) 22:53:41 [Amelia]: um soy ok pero tu necesita ayuda?	S) 22:53:41 [Amelia]: um soy ok pero tu necesita ayuda?
T) 22:54:18 [Amelia]: yo morir facilmente pero soy cool	T) 22:54:18 [Amelia]: yo morir facilmente pero soy cool

18 lines of conversation, asking for words in Spanish, mutual respect, talk about language U) 23:01:04 [Dria]: cuando quieras te ayudo con español, si gustas V) 23:01:37 [Dria]: quieres ir por tu W) mision? 23:01:37 [Amelia]: awe gracias:)	*18 lines of conversation, asking for words in Spanish, mutual respect, talk about language* U) 23:01:04 [Dria]: cuando quieras te ayudo con español, si gustas V) 23:01:37 [Dria]: quieres ir por tu W) mision? 23:01:37 [Amelia]: awe gracias:)

The negotiation of meaning that takes place between Amelia and Dria shows explicit discussions about Spanish language. In lines A-F Amelia valiantly attempts to discuss the concept of academic majors in Spanish, clarifying herself as she sees a breakdown in understanding. Then in lines J-L Amelia asks for verification of her translation for "business" - negocios. After line N, the pair continues for 4 minutes, talking about game-related content and Spanish words (i.e., Amelia asks for help expressing herself by

In the excerpt below, we see more of the same, as Amelia's experience in WoW has been one where she has been able to engage in and maintain extended conversations with NSPs as she utilizes various strategies to overcome her Spanish deficiencies, and endears herself to her NSP interloctuors.

Amelia Chat Excerpt 7

A) 00:06:26 [Ang]: sep B) 00:06:51 [Amelia]: hehe, alguien me dio dos oro	A) 00:06:26 [Ang]: yup B) 00:06:51 [Amelia]: hehe, someone gave me two gold

C) 00:06:52 [Ang]: Se gana buen oro anotando dungeons	C) 00:06:52 [Ang]: You get good goold doing dungeons
D) 00:07:04 [Ang]: eso me dijo un amigo	D) 00:07:04 [Ang]: a friend told me that
E) 00:07:25 [Amelia]: umm no comprende?	E) 00:07:25 [Amelia]: umm (I) don't understand?
F) 00:07:30 [Amelia]: lo siento	F) 00:07:30 [Amelia]: sorry
G) 00:07:43 [Amelia]: cuantos anos tienes?	G) 00:07:43 [Amelia]: how old are you?
H) 00:07:48 [Ang]: 25	H) 00:07:48 [Ang]: 25
I) 00:07:51 [Ang]: xD	I) 00:07:51 [Ang]: xD
J) 00:10:50 [Amelia]: lo siento por mi espanol, es mal	J) 00:10:50 [Amelia]: sorry for my Spanish, it's bad
K) 00:10:57 [Amelia]: tu ingles es mejor	K) 00:10:57 [Amelia]: your English is
L) 00:10:59 [Ang]: jeje nah it's cool	L) better
M) 00:11:03 [Ang]: Thanks	M) 00:10:59 [Ang]: jeje nah it's cool
N) 00:11:24 [Amelia]: soy nuevo	N) 00:11:03 [Ang]: Thanks
O) 00:11:49 [Amelia]: como juegas WoW a menudo?	O) 00:11:24 [Amelia]: I am new
	00:11:49 [Amelia]: (have you played)
P) 00:13:02 [Amelia]: tambien pero me gusta Diablo, soy mage	P) WoW for a while?
	00:13:02 [Amelia]: Also but I like
Q) 00:13:07 [Amelia]: en diablo	Q) Diablo, I'm a mage
R) 00:13:27 [Ang]: I never have played Diablo	R) 00:13:07 [Amelia]: in diablo
	00:13:27 [Ang]: I never have played
S) 00:14:13 [Ang]: I'll try sometime in the	S) Diablo

future	00:14:13 [Ang]: I'll try sometime in the
T) 00:14:27 [Amelia]: cool:)	T) future
U) 00:15:55 [Amelia]: oh quiero ir a la orgrimmar pero no se donde	U) 00:14:27 [Amelia]: cool:)
	00:15:55 [Amelia]: oh I want to go to
V) 00:16:11 [Ang]: I can show you how	V) ogrimmar but I don't know where
	00:16:11 [Ang]: I can show you how

Despite being addressed in English, rather than respond and carry out an easier conversation in her native English, Amelia perseveres and continues the discussion in Spanish. In interviews Amelia mentioned that while it would be easy to speak in English, "since so many players can speak English pretty well. But they were usually very complimentary of my Spanish and that was motivating. It was motivating to know that they understood what I was saying (even with all my mistakes) and that I could actually do it."

CHAPTER 5: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

This dissertation examines the potential of MMOGs for L2 Spanish development when used as an extracurricular venue for socialization and practice, and an integrated platform for writing development. I begin this section with a discussion of the research questions, then move on to other key take-aways from this research.

Questions 1 & 2: Affordances

The data samples and analyses above lay out the affordances that WoW creates for Spanish language practice and development. Four distinct affordances have been identified, that play in WoW: 1) Allows for the creation of safe learning and languaging spaces; 2) Emphasizes communicative competence; 3) Promotes goal-directed collaborative action; 4) Values practice over perfection. Other forms of CMC may result in similar affordances, but these affordances are a hallmark of MMOG play; they are inherent to play in MMOGs.

The first three affordances are uniquely abundant in regular MMOG play; the fourth, practice over perfection, while found in other fast-paced synchronous chat (e.g., text messaging, instant messaging, etc.), gains increased emphasis in MMOGs; as players become comfortable in the affinity spaces found in collaborative MMOG play, they practice and experiment with language, the key tool for interactive and successful MMOG play. Through this affordance I assert that MMOGs may foster an environment for language practice that is on par or exceeds that of other CMC platforms, and shares the same advantages and disadvantages over traditional face-to-face learning found in CMC/CALL research. However, there are a few caveats that follow this claim.

Sound CALL implementation enjoys years of research-based curriculum design and integration. For MMOGs to create similar or better results, more research is needed. For

example, a next logical step in this research might turn the 1-credit course into a 1-credit lab attached to a traditional Spanish course. MMOGs create affordances for language learning; how and what that looks like in practice will be discussed in the sections below.

Question 3: Expertise

The data samples provided illustrate the various affordances for language learning that can be found through social gameplay in WoW. Through interviews, both personal and during focus group sessions, gameplay expertise was determined to be critical in mediating the game experience, and subsequently, any Spanish language interaction. For example, Amelia did not retain the same conversation partners until later in her participation, when she learned to use the /whisper chat channel. Once she demonstrated greater understanding of UI features and MMOG cultural norms (e.g., friends list, /whisper chat, party invites, dungeon roles, etc.), she was able to create more of an online presence with other players, and have repeat gameplay experiences with players who she comes across.

On the other hand, Andrew and Emilio were able to focus their attention on their language development, as they already came in to the study with years of experience playing MMOGs, including WoW.

Amelia and Adam's interactions are generally personal, one-on-one, prolonged interactions. While Andrew and Emilio enjoyed these same types of interactions, their experience is much more varied, as illustrated by their guild participation and conversing with multiple interactants in a single excerpt.

Additionally, I observed diminishing returns on language proficiency that are not as prevalent in MMOG expertise; greater MMOG proficiency got greater mileage than language proficiency. So while Kendall was a high-ability Spanish speaker, her play experience was not as

varied or socially interactive as either Andrew or Emilio (e.g., she spent most of her time questing alone, did not join a guild, did not participate in many dungeon groups, etc.). On the other hand, Andrew and Emilio continued to benefit their experience with computer games and MMOG expertise, which led to a variety of social interactions, as illustrated above.

Expertise is a key mediating factor in a learner's ability to take full advantage of the affordances in WoW.

<div align="center">

Value of MMOG Play vis-à-vis other CMC

</div>

MMOGs and other forms of CMC share many common affordances for language learning, such as increased time spent on task, more interaction, lowering of the affective filter, and increased willingness to communicate, to highlight just a few benefits (Kern, 1995; Warschauer, 1996; Beauvois, 1997; Warschauer, 1997; Meskill, 1999; Pelletieri 1999; von der Emde, Schneider, & Kötter, 2001; Kitade, 2000; Blake, 2003; Warschauer, 2007). While both MMOGs and other CMC present many of the same affordances for language learning, the four affordances highlighted in this research are particularly compelling, and are inherent to play in MMOGs. They are transformed into truly unique affordances by the collaborative play structure of MMOGs.

Both MMOGs and other CMC create the conditions for a safe learning and languaging spaces (affordance 1); most CMC environments used for language learning have placed students in preconfigured groups (e.g., novice-novice, novice-expert, etc.). However, play in MMOGs highlights goal-directed collaborative action, which may take place between experts and novices (affordance 2), as demonstrated in the data samples above. High language proficiency is much less important, as players interact collaboratively with game objectives at the forefront. Throughout the data, there are numerous examples of language errors which do not hinder

interaction between study participants and NSPs, as both groups work to accomplish common goals. High language proficiency is not needed to gain access to high language ability NSPs, as both language learners and NSPs participate in game activities.

In traditional CMC language chatrooms, time allows for students to calculate responses as they interact with each other. In MMOGs, while there are instances when players can spend time to craft their responses (e.g., Emilio's guild interactions), there is often a time-critical window for interaction, which emphasizes communicative competence (affordance 3), requiring players to convey meaning within the flow of conversation (e.g., Andrew managing 3 private conversations). As interactants (e.g., case study participants and NSPs) have a mutual understanding of the constraints and demands of communication within MMOGs, there is much less emphasis on accuracy, which allows for study participants to practice and hone their language skills (affordance 4).

As a ludic enterprise, complete with avatars, pseudonyms, and a high fantasy environment, interaction in MMOGs encourages the four affordances described above. Learners take on a virtual identity and are highly motivated to engage with NSPs in the "frustratingly fun" (Gee, 2007) activities offered in games like WoW. Participants reported a general feeling of challenging the limits of their language ability, all while having fun with NSPs in the WoW environment. Through play, Andrew became friends with a guild member; this friendship extended beyond the virtual play space and continued on Facebook and beyond.

Amelia described the experience of interacting and validating her language gains as "very motivating." In a post-study interview 1 ½ years after her participation in the study, Amelia reported an increased interest in developing and maintaining her Spanish, evidenced by her enrolling in university Spanish courses. Amelia said, "I took a Spanish class last semester… I

was really prepared for it. I don't think I would have been without the WoW experience." Asked about how she benefitted specifically from her participation in WoW, Amelia said, "I was able to just practice so much… it's like a comfortable environment, it's not like in class, taking a test, so it doesn't really matter if you make a mistake." Her positive experience within the environment gave her confidence in her language ability and helped her stay motivated in further developing her Spanish. Amelia reported that her participation in WoW was very motivating in that it connected her classroom learning to actual communicative scenarios.

Warschauer (2005) writes, "the incorporation of tools (in this case WoW) or mediational means does not simply facilitate action that could have occurred without them, but rather, by being included in the process of behavior, alters the entire flow and structure of mental functions." WoW doesn't merely facilitate action that can occur within other forms of CMC; as WoW is an integral part of language practice and play, these activities and the flow and structure of language processes are transformed. Play in MMOGs presents affordances and challenges in language learning that are unique to this platform.

Heritage Speakers

Heritage speakers make up an important demographic in language courses and curriculum across both secondary and tertiary education (see, e.g., Valdés, G., Lozano, A. G., & García-Moya, R., 1981; Colombi & Alarcon, 1997). While this group is often not the focus of exploratory language education research like that presented here, WoW does present opportunities to heritage speakers for meta-awareness of language strengths and deficits. This is especially the case as it relates to written language, which has been demonstrated to be a particularly challenging area for native and heritage speakers. Kendall notes in her last journal entry:

| "me gusto que podía hablar español en esta clase pero me gustaria si podria aprender español mas, o almenos practicar lo que yo ya se." | "I enjoyed that I was able to speak Spanish in this class but I would have liked it if I would have been able to learn Spanish, or at least practice what I already know." |

Kendall clarified this journal, lamenting that she wished for greater focused instruction on writing, as she perceived that to be her biggest weakness.

Admittedly, this research design was not intended to account for native and heritage speakers, and curriculum changes (e.g., pairing Kendall with low Spanish proficiency participants) were made to account for these participants. Future research into the use of MMOGs for heritage speakers, and research aimed specifically at those in the highest division language courses is needed to shed light on the ways that MMOGs may serve these groups of learners.

Participant Demographics

Gender and ethnicity proved to be a factor in who came to the study with the MMOG expertise necessary for success in WoW. MMOG expertise was represented by two focal participants: Emilio and Andrew. Both participants are Caucasian males from middle class economic backgrounds. All 5 non-focal participants with high MMOG expertise were Caucasian males from the middle-upper middle class. Every one of the low MMOG expertise participants were racial minorities from a generally lower socioeconomic tier. This follows what Andrews (2008) reported in a study examining gaming preferences of an ethnically diverse group of study participants.

What Andrews found is that there are large numbers of gamers who do not play the types of games that have been most extensively studied in education research (e.g., simulations, MMOGs, etc.). Although there are gender differences, the discrepancy is most apparent when comparing groups according to socioeconomic status. Those with high SES were the only ones playing MMOGs. Generally, participants from low SES backgrounds played more sports, racing, and wrestling titles—not the types of games normally cited as being optimal for learning purposes. Low SES groups also preferred console gaming (e.g. PlayStation, Nintendo, Xbox) to computers and were less likely to play online, preferring to play with friends in person. When playing online, low SES students were much less likely to be involved with an organized social group associated with online games (e.g. guilds, clans, etc.). This is a particularly interesting finding given that advocates for games and learning often cite the importance of collaborative efforts in online games in developing beneficial academic skills. Researchers have pointed out the importance of gaming communities in game play as well as identity creation (Steinkuehler 2007; Squire, 2006; Stevens, Satwicz, & McCarthy, 2007). "Involvement in video game communities leads many youth to develop sophisticated digital literacies and become a part of a participatory culture" (Devane & Squire, 2008). However, as with web content creation, research shows that those with higher SES shape most of the content online (DiMaggio & Hargittai, 2001).

SES is an important consideration that must be accounted for in any future implementation of MMOGs for language development. In study 2, the participants represented by Kendall were paired with Spanish novices, who in all cases but 3, were MMOG experts. This worked well to balance language and MMOG expertise.

Confidence

Interviews revealed that play in WoW, like play in other traditional in class activities (e.g., role-play, games, etc.), served to lower affective variables that have been found to limit language acquisition. Participants reported feeling more comfortable interacting in Spanish within the virtual environment, often citing how they were "less scared" or gained a degree of confidence as they realized they could express themselves in Spanish and actually be understood by native speakers.

Adam explained that prior to his participation in the study, it was highly unlikely that he would approach his co-workers in Spanish, but that he now interacts with them in Spanish regularly:

"I actually talk with my co-workers in Spanish now. Whereas we wouldn't really talk or hang out before, I actually say little things - stuff I already knew, but was too shy to say before. After playing the game, I felt comfortable enough with my Spanish to talk to them. We talk all the time now - it's funny. They'll teach me stuff and we get along way better now."

I saw Emilio online almost 2 years after he was a study participant and began a conversation. He mentioned that he still remembers and uses the Spanish he learned while a university student and study participant. We had an informal Google Hangout interview where he explains:

"I speak Spanish when I see an opportunity. Really, I was not the most outgoing person in class and would not really look to use my Spanish. Now, even after graduating though, I find myself using it more than I would have imagined…"

Emilio added:

"Just playing the game, which is something I was good at, forced me to speak

Spanish. I've played WoW for years and consider myself to be pretty good at it.

I usually pick critical roles like tank or healer and do well. It was at times

frustrating because I'm good at the game, but not great in Spanish. I feel like I

was able to say what I needed to say when I'd group with guild members, or in

gchat, and that I could contribute…" Emilio states that his identity as a WoW

expert helped him overcome his inhibitions with language because, "guild

members saw me as a good player. They didn't care - they cared less that I

couldn't speak Spanish well, as long as I could play and have fun."

Like Amelia above (see excerpt 7 discussion), in an interview one year after his participation in the study, Andrew reflects on how it was,

"motivating that they understood me, even with all my mistakes. It encouraged

me to talk more and practice more… It's definitely a confidence builder for me.

I never spoke Spanish to anyone really, outside of class, and here I could do it

with these people online."

Like Emilio, Andrew's language confidence was due in part to his expertise in WoW. Being a valued guild member and recognized (through achievements) by other NSPs as an accomplished WoW player, Andrew felt at ease in his identity as a Spanish learner, in part because he could lean on his expertise as a WoW veteran. Below is a NSP response taken from Andrew's forum post:

| El chaval es un jugador del realm Illidan, que es uno de los mas famosos en norteamerica. | The kid is a player on the Illidan server, that is one of the most famous in North America. |

When asked about this forum response from a NSP Andrew said:

> "Yeah, that was pretty awesome, to be recognized like that. I mean, people can
>
> inspect you and see your achievements, so they knew what I have to offer in
>
> terms of gameplay."

 Both Emilio and Andrew enjoyed even greater confidence within the game space due to their gameplay expertise, which in turn enhanced their confidence in their ability express themselves in Spanish; the ideas they convey were of value to NSPs (see, e.g., guild chat excerpts from Andrew and Emilio), and as these messages were well received, this had the effect of increasing both participants' willingness to communicate.

All study participants reported a greater sense of confidence in their language ability, and each were encouraged to interact more in different ways by NSPs. This cycle of interaction and feedback (mostly positive) resulting in greater confidence and increased interaction had a positive snowballing effect. Future research should explore this cycle in greater detail and examine the point at which increased interaction plateaus.

Noticing and meta-awareness of language ability

The noticing hypothesis (Schmidt, 1990; 1995) asserts that learners must gain some meta-awareness of language (e.g., notice language forms) in order to convert input to intake for learning. Attention and awareness are necessary components of noticing. Participants in this study noticed conventional Spanish language forms (i.e., vocabulary, idioms, etc.) and text-chat-specific Spanish language forms, (abbreviations, emoticons, etc.). These forms were discussed in class as noted by Kendall:

Kendall Journal Excerpt 2

Hoy hablamos mas sobre el juego en clase.	Today we talked more about the game in

Aprendi cosas nuevas que puedo hacer para comunicarme con la gente del juego. Ahora ya se como platicar con otros con facilez.	class. I learned new things that I can do to communicate with people in the game. Now I know how to talk to others easily.

Overt discussion of these specific conventional and game-specific forms improved the overall game experience for all study participants, as both Kendall and the spanish learner participants had never encountered many of the forms before their interactions in WoW.

What was not overtly discussed, was made clear to learners as they interacted with others in WoW. Adam expressed a common experience shared by all Spanish learners, about how his participation in WoW increased his understanding of his Spanish language ability:

"It's funny; I surprise myself all the time. When I started, I thought I didn't know much Spanish, but I ended up realizing that I can do a lot more than I thought"

Early on, Emilio shares a different perspective:

"I quickly learned how poorly my Spanish skills transfer over to real conversations; by the time I usually translate and think of a response in a group it is too late to do what I am supposed to. I created a group to kill the elite quest "Hoggar", which proved much more difficult than I could imagine; normally I would take the time to explain how aggro works, but I was unable to find a way to put that across that my teammates would understand. Groups are hard to come by, because people seem to be hard to come by unless I'm in a city/town. I am debating making macros with general warnings in Spanish."

However, as time passed, Emilio also enjoyed the same increase level of confidence in his ability, as he gained more experiences where he was able to successfully express himself in Spanish.

The takeaway here is that play in WoW calls learner attention to language - both their own ability to produce language and to the specific details of language. The reviewable text chat shares the same benefits of other CMC; learners can scroll through to unfamiliar or otherwise noteworthy items, which facilitates the conversion from input to intake.

Fun

Those who had fun, spent more time in game and consequently, had more interactions with Spanish speakers. In their study of L2 writing Alan et al. (2014), found game enjoyment to be a critical variable in L2 writing practice. In his final journal entry of the study, Andrew writes:

Andrew Journal Excerpt 3

Journal for 3/17/13	Journal for 3/17/13
1. yo estoy level 30 misma ahora!	1. I am level 30 now!
2. Habla con mi guild, pero no hablo mucho. Juego en stranglethorn vale.	2. I talk to my guild, but I don't talk a lot. I am playing in stranglethorn vale.
3. Creo que mi favorita reina esta aqui! bueno!!!	3. I think this is my favorite server! good!!!

The experience has been an enjoyable one; as a WoW expert and active player, in line 3 Andrew indicates that the Spanish server is his favorite. This is saying a lot, since he has been playing the game since the first expansion in 2007 and has undoubtedly had a varied play through

experience. His words here are not just lip-service; Andrew continued to play on the server well after the study was over, evidenced by one of his characters reaching the current level cap of 90.

Limitations

As an exploratory study this research followed 25 participants, highlighting the representative experiences of 5 key participants, culled from the data generated in a voluntary participant setting and a 1-credit Spanish course setting. Any conclusions drawn from this research must take this small sample size into account. Future research, following some of the suggestions outlined in the section above, would benefit from a larger sample size, and depending on the research design (e.g., 4-credit course) may also generate data that is more robust and of greater variety. Additional data analysis methods should be carried out that allow researchers to move beyond affordances, and into measurable outcomes. Future research should look into effects on specific language features. For example, using an experimental design, one might measure lexical density and variation, and changes over time, comparing differences between control and study groups, to measure what effect play in WoW has on student writing, language fluency and complexity.

Limitations of Games

One key finding is that MMOG expertise plays a strong mediating factor in the opportunities for interaction and in accessing the affordances reported in this research. Greater MMOG expertise generally led to greater language learning opportunities. While all study participants were able to achieve a level of expertise that allowed them to enjoy the affordances of MMOGs for language learning, those coming into the study with high MMOG expertise or general game play expertise fared much better, much earlier. This allowed them to build on these early success and focus more on interactive play, rather than the learning game of mechanics

(e.g., user interface, social norms, etc.). This high price for entry into this environment is a limitation of using MMOGs for L2 learning.

Another limitation revolves around improving language accuracy. The affordances for learning reported here highlight MMOGs as places where learners are free to experiment with language in scenarios where communicative ability trumps accuracy. However, this poses a problem when there are no opportunities in-game for errors to be corrected, or for recasts of incorrect language. Without proper remediation for these errors, learners have no way to know when their language production is fully accurate; for communicative purposes, this may not matter as much, but depending on the purposes of language study, individuals, teachers, curriculum designers, and others involved in a language program considering using such a platform should take this limitation into account.

Another limitation of MMOGs for language learning deals with the actual language required in most short exchanges. There are many abbreviations particular to MMOGs that do not extend beyond game play. Many short exchanges are formulaic, with simple greetings or requests for directions, money, or other game-specific content. One study participant created a cheat-sheet of common phrases used for bartering and auctioning. This participant became adept at using this specialized language, especially within the specific context of the game's economy. However, once mastered, there was no need for him to expand beyond the words and phrases he mastered. The same problem of specialized language deals with most other game-specific systems, such as dungeons and raids, as well as player-vs-player content, crafts and trades. All participants engaged in conversations that extended beyond game objectives, which then becomes more interpersonal in nature and resembles more of the communication found outside of the confines of WoW. As with the other limitations of MMOGs for L2 learning, those

92

involved in designing and implementing MMOGs for L2 learning should prepare learning

experiences that address these limitations. Some suggestions for these groups are presented

below.

<div align="center">**Implications**</div>

MMOGs are social, collaborative, graphically-and-textually-rich spaces that attract large

followings. The popularity of WoW is undeniably well deserved, as all aspects of excellent game

design contribute to its longevity and success. As demonstrated in this research, MMOGs like

WoW create affordances that can be leveraged for second language learning. Based on these

affordances, I make the following recommendations to specific groups looking to benefit from

MMOG play:

Individuals

Every participant in the high MMOG category self-reported a perceived benefit from play

in WoW. Emilio, who was taking a Spanish course concurrent with his participation as a

volunteer in this study made gains noticeable by his Spanish professor, who sent me an email

about Emilio's participation, reporting:

> "You know what? That is freaking impressive! You know what else, Emilio
>
> completely formulated a question and expressed himself in Spanish in a
>
> manner that exceeded the level of most of the other students. I was
>
> impressed and now I am even further so. I think you're on to something
>
> man!!! This is exciting. I'm going to send him an e-mail telling him he's
>
> doing well."

Individuals with MMOG experience are best prepared to take advantage of the affordances for language learning in MMOGs. In a follow-up interview one year after his participation in the study, Andrew relates:

"I had a lot of fun. If the Spanish server had the same PVP (player vs. player) competitiveness as my main server, I would totally switch my character to the Spanish server... I just feel like, if I can practice Spanish, doing something I enjoy a lot (playing competitively in WoW PVP), that would be ideal... I really feel like my Spanish could improve, doing that."

Andrew said he hadn't spoken much Spanish since his participation on the Spanish server, but that he enjoyed his time and acknowledges that he received valuable language practice while playing on the Spanish server.

Any individual wishing to use WoW to develop a L2 Spanish should:

1. *Have a high-beginner minimum Spanish language proficiency.* While an individual with lower language proficiency may benefit from play, participants in this study starting with at least a high-beginner proficiency were much more successful in their play and learning experience than those below this baseline.

2. *Play* WoW *as a supplement to other Spanish language instruction.* To take full advantage play time in WoW, individuals seeking to develop their Spanish should take of forms of Spanish language instruction. Use WoW to as a platform to actively practice the language skills learned in other instructional settings.

3. *Spend time learning the mechanics and culture of MMOGs.* This will further maximize the play-to-learn experience; as demonstrated by Emilio and Andrew,

knowledge of MMOG mechanics and social norms can positively influence

communicative interactions with Spanish speaking players.

4. *Join and become an active participant in a Spanish guild.* Guild members

become invested in each other and are another, more stable source for language

practice. The Spanish learner should actively participate in the guild, where

opportunities for social interactions are plentiful, and are ongoing; learners can

move beyond introductions and pleasantries to discuss other topics with a

brotherhood of like-minded players.

Teachers

A few studies have found benefits for individuals and small groups playing MMOGs like

WoW. Part of the aim of this research was to explore how WoW might fit into a structured

curriculum. While there are challenges to associated with integrating WoW into Spanish

curriculum, teachers may consider using MMOGs like WoW to promote language learning under

certain conditions. The list below is ordered from highest to lowest levels of MMOG integration.

All of the tips for individual learners discussed above should be taken into consideration when

using MMOGs in a language curriculum.

1. *Offer optional MMOG-integrated courses*. This would entail creating a special

section of a language course that clearly identifies play in MMOGs as a required

component of the course curriculum. Learners in this course voluntarily enroll

in a section that were activities are aligned with play in the MMOG. While a

general outline for class instruction and activity would be used, time in class

would be dedicated to discussion of language experiences of students; the

language curriculum would be flexible, guided by an inductive analysis of

learner experiences with the aim of identifying the most prevalent language needs of students. This course would be recommended for intermediate+ level (i.e., 200-level) language learners.

2. *Offer courses with a required MMOG lab section*. These courses would follow a more traditional 100-level language curriculum, with considerations made for play in the MMOG, following some of the same principles of the MMOG-integrated course. The curriculum would be less flexible in class time and language instruction, generally adhering to the more traditional language curriculum. Lab time would be used to address MMOG mechanics and culture, and game-specific language. These courses would be suitable for high-beginners and above.

3. *Offer courses with a MMOG lab option*. This follows a similar design to what many study 1 participants experienced. Students take a traditional Spanish course and are given the option to participate in a MMOG lab, or participate in the conventional language lab. The same language-level MMOG lab could be used for these students. This design could be applied to any

These are general ideas, though different approaches to integration may warrant modification of these guiding principles. For example, teachers might opt to use WoW as a supplement or a lab section, both of which would require the above principles, but to a greater or lesser extent.

All of these suggestions require flexibility, as it is crucial for teachers to adjust class activities to complement what is taking place in the game environment. For example, most study participants were very excited when they interacted with NSPs

and found out their country of residence. When Andrew found out that Chico was from Argentina, he became even more interested in Chico and in Argentina. One way to extend this interest would have been to direct class discussion, activities, readings, idiom study, vocabulary and grammar, to match Argentinian culture and language. A discussion of voseo, for example, could lead Andrew and others to use this form in practice with Argentinian NSPs, who may appreciate the learners' bids for communication, using Spanish language elements specific to their country. Class discussion on other cultural topics could be carried over into communication with these online NSPs, further deepening the friendships and social interactions between NSPs and learners.

Teachers should also take special care to draw attention to language issues that arise during play. In this study, class time was used to clarify confusing language structures and reinforce helpful vocabulary that would aid participants during their language interactions with NSPs. As pointed out in the limitations of MMOGs, recasts and corrections are virtually non-existent during gameplay. This puts the onus for correction on teachers, though teachers should design activities that allow students to participate in the error-correction and learning process. For example, an activity might require individual students to review their personal chatlogs from the previous day's game play and identify the 5 errors each student feels is their biggest area for improvement. Students come to class and share their errors and corrections with peers and as a class, where the teacher then takes the lead in a discussion of what the teacher sees as the biggest areas for improvement among all class members.

Teachers should use the guidelines above, but remain flexible in the specifics of

in-class activities, making sure to leverage teacher-student time for the purposes of clarifying language issues, extending the online play experience, and connecting and contextualizing the online language experience with the real world.

Designers

Game designers have created compelling interactive experiences generating revenues that surpass the biggest Hollywood blockbusters. In an industry of supply and demand, there are huge budgets dedicated to the next *Grand Theft Auto*, or even the next expansion of *World of Warcraft*. Less time and resources are allocated to smaller revenue streams, like educational games, which often result in lame "edutainment" titles. Creating a successful game for language learning, particularly a MMOG for language learning, would build upon and highlight the affordances inherently found in MMOGs, as reported in this research.

Taking WoW as an example, here are two suggestions for easy modifications that could support language learning.

1. Vocabulary development addon- an addon which allows users to mouse over game elements and request the Spanish or English equivalents of the element. For example, hovering the cursor over a rabbit, might display Spanish word "conejo" when the user presses a key trigger (e.g., the option key). This request is stored in a list for students to review later.

2. Idioms and translator addons- unlike the GUI mod above, this is a dictionary addon that provides common idioms and provides Spanish translations. Like the first addon, user queries are stored for review later.

Bigger changes that go beyond addons include:

1. Scaled quest dialogue for varying levels of language ability.

2. Instanced dungeons using the dungeon finder that allow for 2 native speakers and 3 non-native speakers looking to learn a language.

3. Built-in incentive for native-speakers engaging in language mentorship (e.g., special mounts, gear "skins", titles, etc.) via dungeons or other special events.

4. Servers catering to language learners where mentors can queue to gain special rewards upon receiving recommendations from learners.

These are just a few examples that could be created using WoW almost as-is, on a dedicated server.

Researchers

While I have identified unique affordances for language learning found in MMOGs like WoW, there remains many unanswered questions which go beyond the scope of this project. Some of these directions for future research are provided in the discussion above; I will share a few more ideas here.

I was unable to implement a final iteration of WoW integration in a Spanish curriculum, which would have taken the 1-credit course and turned it into a 1-credit lab for a 4-credit Spanish course. This design explores a higher stakes integration of WoW in the curriculum, with learners who are taking Spanish to fulfill degree requirements. Additionally, comparing this type of course with a control group would further illuminate what type of effect these affordances have on learner outcomes (e.g., tests, final grades, oral proficiency interview, etc.), and the extent to which these effects impacts outcomes for different demographics of learners.

Conclusion

The *World of Warcraft* is ripe with collaborative activities and opportunities for social interaction that are designed to be challenging and fun. The argument made in this research is

that this gameplay can channeled for language learning, as WoW creates unique affordances for language learners. The implications for individuals, teachers, designers, and researchers provide the next steps for using MMOGs like WoW for second language development.

REFERENCES

Allen, L. K., Crossley, S. A., Snow, E. L., & McNamara, D. S., (2014). L2

    writing practice: Game enjoyment as a key to engagement. Language Learning &

    Technology, 18(2), 124–150. Retrieved from

    http://llt.msu.edu/issues/june2014/varneretal.pdf

Andrews, G. G. (2008a). Baby games, boy games, games for nerds: Class and gender

    gaming disparities among U.S. youth. Paper presented at the Under the Mask:

    Perspectives on the Gamer Conference, Luton, England. Retrieved January 29, 2008,

    from http://underthemask.wikidot.com/gusandrews.

Andrews, G.G. "Gameplay, Gender, and Socioeconomic Status in Two American High

    Schools." *E-Learning* 5.2 (2008): 199. Print.

Beauvois, M. H. (1997). Computer-mediated communication: Technology for improving

    speaking and writing. In M. D. Bush (Ed.), *Technology enhanced language learning* (pp.

    165-184). Lincolnwood, IL: National Textbook Company.

Black, R. W. (2006). Language, culture, and identity in online fanfiction. *E-learning*, 3

    (2), 170-184.

Black, R.W. (2008). *Adolescents and Online Fan Fiction*. New York: Peter Lang.

Blake, R. (2000). Computer mediated communication: A window on L2 Spanish

    interlanguage. *Language Learning & Technology*, *4* (1), 120-136. Retrieved June 19,

    2012, from http://llt.msu.edu

Blake, R., & Zyzik, E. (2003). Who's helping whom?: Learner/heritage speakers'

networked discussions in Spanish. *Applied Linguistics*, *24* (4), 519-44.

Bytheway, J. (2011) *Vocabulary learning strategies in massively multiplayer online*

role-playing games : a thesis submitted to the Victoria University of Wellington in partial fulfilment of the requirements for the degree. Unpublished Masters Thesis.

Chen, M. (2009) Visualization of expert chat development in a *World of Warcraft* player group. *E-Learning,* 6 (1): 54-70.

Engber, C. A. (1995). The relationship of lexical proficiency to the quality of ESL compositions. *Journal of Second Language Writing*, *4*(2), 139–155. doi:10.1016/1060-3743(95)90004-7

Fotos, S. (2004). Writing as talking: E-mail exchange for promoting proficiency and motivation in the foreign language classroom. In S. Fotos & C. Browne (Eds.), New perspectives on CALL for second language classrooms (pp. 109 – 129). Mahwah, NJ: Lawrence Erlbaum.

Gee, J.P. (2004) *Situated Language and Learning: a critique of traditional schooling.* London: Routledge.

Gee, J. P. (2005). *An introduction to discourse analysis*: *Theory and method*. New York: Routledge.

Gee, J. P. (2007) *What Video Games Have to Teach Us About Learning and Literacy. Second Edition: Revised and Updated Edition* (2nd ed.). New York: Palgrave Macmillan.

Gee, J. P. (2010). *How to do Discourse Analysis: A Toolkit*. New York: Routledge.

González, G. (1998, 12). La Enseñanza del Español a Hispanohablantes: praxis y Teoría. M. Cecilia Colombi and Francisco X. Alarcón (Eds.). Boston, MA: Houghton Mifflin, 1997. Pp. xiv 343. $25.47 paper. *Studies in Second Language Acquisition, 20*(4), 596-597. doi:

10.1017/S0272263198234061

Kemp, N. (2010, 12). Texting versus txtng: Reading and writing text messages, and links with other linguistic skills. *Writing Systems Research, 2*(1), 53-71. doi: 10.1093/wsr/wsq002

Kern, R. (1995) Restructuring Classroom Interaction with Networked Computers: Effects on Quantity and Characteristics of Language Production. *Modern Language Journal*, *79*(4): 457-76.

Kern, R., & Warschauer, M. (2000). Theory and practice of network-based language teaching. In Kitade, K. (2000). L2 Learners' discourse and SLA theories in CMC: Collaborative interaction in Internet chat. *Computer Assisted Language Learning, 13*(2), 143-166.

Krashen, Stephen D. 1987. *Principles and practices in second language acquisition.* New York: Prentice-Hall.

Lantolf, J.P. & Beckett, T.G. (2009). Sociocultural theory and second language learning. *Language Teaching, 42, pp. 459-475.*

Lewis, A. (2012) *Learner' mode preferences and willingness to communicate in face-to-face versus oral computer-mediated communication : a thesis submitted to San Diego State University in partial fulfilment of the requirements for the degree.* Unpublished Masters Thesis.

Lessow-Hurley, J. (1981, 12). Teaching Spanish to the Hispanic Bilingual : Issues, Aims and Methods Valdes, Guadalupe, Anthony G. Lozano and Rodolfo Garcia-Moya, eds. New York: Teachers College Press, 1980. *Journal of Teacher Education, 32*(4), 52-52. doi: 10.1177/002248718103200412

Mcrobbie, Campbell, and Kenneth Tobin. "Restraints to Reform: The Congruence of

    Teacher and Student Actions in a Chemistry Classroom." *Journal of Research in Science*

    Teaching 32.4 (1995): 373-85. Print.

Meskill, C. (1999). Computers as tools for sociocollaborative language learning. In K.

    Cameron (Ed.), Computer-assisted language learning (CALL): *Media, design and*

    applications (pp. 144–152). Exton, PA: Swets and Zeitlinger.

Mullen, T., Appel, C., & Shanklin, T. (2009). Skype-based tandem language learning and

    web 2.0. In M. Thomas (Ed.), Handbook of research on Web 2.0 and second language

    (pp. 101–118). Hershey, PA: Igi Global.

Nardi, B. A., Ly, S. and Harris, J. (2007) Learning Conversations in World of Warcraft.

    Proceedings of the 40th Annual Hawaii International Conference on System Sciences,

    HICSS ʼ07. Washington, DC, USA: IEEE Computer Society, 79.

Nor, N. F. M., Hamat, A., & Embi, M. A. (2012). Patterns of discourse in online

    interaction: seeking evidence of the collaborative learning process. *Computer Assisted*

    Language Learning, *25*(3), 237–256. doi:10.1080/09588221.2012.655748

Pais Marden, M. P., & Herrington, J. (20110627). Supporting interaction and

    collaboration in the language classroom through computer mediated communication.

    World Conference on Educational Multimedia, Hypermedia and Telecommunications

    2011, *2011*(1), 1161–1168.

Paul, C. A. "Welfare Epics? The Rhetoric of Rewards in World of Warcraft." *Games and*

    Culture 5.2 (2010): 158-76. Print.

Pellettieri, J. (2000) Negotiation in cyberspace: The role of chatting in the development

    of grammatical competence. In: Warschauer, M. and Kern, R. (eds.), *Network-based*

language teaching: Concepts and practice. Cambridge: CUP, 59-86.

Peterson, M. (2010) Massively multiplayer online role-playing games as arenas for

second language learning. *Computer Assisted Language Learning*, 23(5): 429.

Plester, B., Wood, C., & Joshi, P. (2009, 12). Exploring the relationship between

children's knowledge of text message abbreviations and school literacy outcomes. *British*

Journal of Developmental Psychology, 27(1), 145-161. doi: 10.1348/026151008X320507

Plester, B., Wood, C., & Bell, V. (2008, 12). Txt msg n school literacy: Does texting and

knowledge of text abbreviations adversely affect children's literacy attainment? *Literacy,*

42(3), 137-144. doi: 10.1111/j.1741-4369.2008.00489.x

Purushotma, R. (2005) You're not studying, you're just…. *Language Learning &*

Technology, 9 **(**1): 80–96.

Rankin, Y., Gold, R. and Gooch, B. (2006) 3D role-playing games as language learning

tools. In: Gröller E. and Szirmay-Kalos L.(eds.), *Proceedings of EuroGraphics* 25(3).

New York: ACM.

Rankin, Y. A., Morrison, D., McNeal, M., Gooch, B. and Shute, M. W. (2009) Time will

tell: in-game social interactions that facilitate second language acquisition. In: Young, R.

(ed.), *Proceedings of the 4th international conference on foundations of digital games*.

New York: ACM, 161–168.

Reinders, H. and Wattana, S. (2011) Learn English or die : The effects of digital games

on interaction and willingness to communicate in a foreign language. *Digital Culture &*

Education, 3(1): 3-29.

Soares Palmer, D. (2010). *Second language pragmatic socialization in World of*

Warcraft. Unpublished PhD Thesis: University of California, Santa Barbara.

Spradley, J. P. (1980) *Participant observation*. Orlando, FL: Harcourt Brace Jovanovich College Publishers.

Steinkuehler, C. (2007) Massively multi-player online gaming as a constellation of literacy practices. *eLearning,* 4(3): 297-318.

Swain, M. (1995) Three functions of output in second language learning. In Cook, G. and Seidelhofer, B. (Eds.) *Principle and Practice in Applied Linguistics: Studies in Honor of H.G. Widdowson*, pp. 125-144. Oxford: Oxford University Press.

Sykes, J., Oskoz, A. and Thorne, S. L. (2008) Web 2.0, Synthetic Immersive Environments, and the Future of Language Education. *CALICO Journal*, 25(3): 528-546.

Thorne, S. L. (2008) Transcultural communication in open Internet environments and massively multiplayer online games. In: Magnan, S. (ed.), *Mediating Discourse Online*. Amsterdam: John Benjamins, 305-327.

Thorne, S. L., Black, R. and Sykes, J. (2009) Second Language Use, Socialization, and Learning in Internet Interest Communities and Online Games. *Modern Language Journal*, 93: 802-821.

Thorne, S. L. (2010) The "intercultural turn" and language learning in the crucible of new media. *Telecollaboration*, 2: 139–164.

Thorne, S. L., Fischer, I. and Lu, X. (2012) The Semiotic Ecology and Linguistic Complexity of an Online Game World. *ReCALL,* 24 (3):

Valdés, G., Lozano, A. G., & García-Moya, R. (1981). *Teaching Spanish to the Hispanic bilingual: Issues, aims, and methods*. New York: Teachers College, Columbia University.

van Lier, L. (2000) From input to affordance: Social-interactive learning from an ecological perspective. In: Lantolf, J. (ed.), *Sociocultural theory and second language*

learning. New York: Oxford University Press, 245-259.

Von Der Emde, S., Schneider, J., & Ko¨ tter, M. (2001). Technically speaking:

Transforming language learning through virtual learning environments (MOOs). The

Modern Language Journal, 85(2), 211–225.

Vygotsky, L. S. (1978) *Mind in Society*. Cambridge, MA: Harvard University Press.

Ware, P. D., & Kramsch, C. (2005). Toward an intercultural stance: Teaching German

and English through telecollaboration. *Modern Language Journal*, 89, 190–205.

Warschauer, M. (1996) Computer-assisted language learning: An introduction. In: Fotos,

S. (ed.), *Multimedia language teaching*. Tokyo, Japan: Logos International, 3-20.

Warschauer, M. (1997). Computer-mediated collaborative learning: Theory and practice.

Modern Language Journal, 81: 470-481.

Warschauer, M., & Kern, R. (Eds.), Network-based language teaching: Concepts and

practice (pp. 1-19). New York: Cambridge University Press.

Warschauer, M. (2004). Technological change and the future of CALL. In S. Fotos & C.

Brown (Eds.), New Perspectives on CALL for Second and Foreign Language Classrooms

(pp. 15-25). Mahwah, NJ: Lawrence Erlbaum Associates.

Warschauer, M. (2005). Sociocultural perspectives on CALL. In J. Egbert and G. M.

Petrie (Eds.) CALL Research Perspectives (pp. 41-51). Mahwah, NJ: Lawrence

Earlbaum.

Warschauer, M. (2007). Technology and writing. In C. Davison & J. Cummins (Eds.),

The International Handbook of English Language Teaching (pp. 907-912). Norwell,

MA: Springer.

Wehner, A. K., Gump, A. W., & Downey, S. (2011). The effects of Second Life on the

motivation of undergraduate students learning a foreign language. *Computer Assisted Language Learning*, *24*(3), 277–289. doi:10.1080/09588221.2010.551757

White, L., Spada, N., Lightbown, P. M. and Ranta, L. (1991) Input Enhancement and L2 Question Formation. *Applied Linguistics*, **12**(4): 416-432.

Yanguas, I. (2012). Task-Based Oral Computer-Mediated Communication and L2 Vocabulary Acquisition. *CALICO Journal*, *29*(3), 507–531.

Zhao, Y. and Lai, C. (2008) Massively Multi-Player Online Role Playing Games (MMORPGS) and foreign language education. In: Ferdig, R. (ed.), *Handbook of Research on Effective Electronic Gaming in Education*. New York: IDEA Group, 402-421.

Zheng, D., Young, M. F., Brewer, R. A. and Wagner, M. (2009) Attitude and self-efficacy change: English language learning in virtual worlds. *CALICO Journal*, *27*(1): 205–231.

Zheng, D., Young, M., Wagner, M. and Brewer, R. (2009) Negotiation for action: English language learning in game based virtual worlds. *Modern Language Journal,* **93**: 489-511.

APPENDICES

APPENDIX A

Learner Profile Survey

<u>WoW **Survey**</u>

Please complete this survey and return to the researcher. For the purpose of this survey, video games are defined as any computer (e.g. PC), console (e.g. Nintendo, PS3, etc.), or handheld (e.g. PSP, Nintendo DS, etc.) game.

Participant Background

1. Please indicate your ethnicity (check all that apply):
  □ Caucasian
  □ Hispanic
  □ African American
  □ Pacific Islander
  □ Asian
  □ Other _____

2. How far in school did your parents go? Indicate your mother's and father's highest level of education. (**MARK ONE RESPONSE IN EACH COLUMN**)

Mother (or female guardian)	Father (or male guardian)
□ Did not finish high school	□ Did not finish high school
□ Graduated from high school or equivalent (GED)	□ Graduated from high school or equivalent (GED)
□ Graduated from high school and attended a two-year school (such as a vocational or technical school, a junior college, or a community college), but did not complete a degree	□ Graduated from high school and attended a two-year school (such as a vocational or technical school, a junior college, or a community college), but did not complete a degree
□ Graduated from a two-year school (such as a vocational or technical school, junior college, or a community college)	□ Graduated from a two-year school (such as a vocational or technical school, junior college, or a community college)
□ Graduated from high school and went to college, but did not complete a four-year degree	□ Graduated from high school and went to college, but did not complete a four-year degree
□ Graduated from college	□ Graduated from college
□ Completed a Master's degree or	□ Completed a Master's degree or

equivalent	equivalent
□ Completed a Ph.D., M.D., or other advanced professional degree	□ Completed a Ph.D., M.D., or other advanced professional degree
□ Don't Know	□ Don't Know
□ Does Not Apply	□ Does Not Apply

3. Which category does your total family income from all sources in 2008 fall into? (If you are not sure about the amount, please estimate.)
(**Check ONLY ONE**)

□ None	□ $25,001 - $35,000
□ $1,000 or less	□ $35,001 - $50,000
□ $1,001 - $5,000	□ $50,001 - $75,000
□ $5,001 - $10,000	□ $75,001 - $100,000
□ $10,001 - $15,000	□ $100,001 - $200,000
□ $15,001 - $20,000	□ $200,001 or more
□ $20,001 - $25,000	

4. As things stand now, how far in school do you think you will get? (**Check ONLY ONE**)
  □ Attend college, but not complete a 4-year degree
  □ Graduate from college
  □ Obtain a Master's degree or equivalent
  □ Obtain a Ph.D., M.D., or other advanced degree
  □ Don't know

5. What kind of grades did you receive as a high school student? (**Check ONLY ONE**)
  □ Mostly A's
  □ Mostly B's
  □ Mostly C's
  □ Mostly D's
  □ Mostly F's
  Other: _____

Video Games
6. How long have you been playing video games? (**Check ONLY ONE**)
  □ Less than 1 year
  □ 1-2 years
  □ 3-4 years
  □ 5-6 years
  □ 7-8 years
  □ 9-12 years
  □ 13-15 years

□ 16+ years

7. Do you consider yourself to be a gamer? (**Check ONLY ONE**)
     □ Yes, I'm a hardcore gamer.
     □ Yes, I'm a gamer.
     □ Sort of.
     □ Not really.
     □ No.

8. When was the last time you played a video game? (**Check only the MOST RECENT**)
     □ Within the past 24 hours
     □ Within the last 2 days
     □ Within the last week
     □ Within the last 2 weeks
     □ Within the last month
     □ Within the last year
     □ Within the last 5 years
     □ It's been longer than 5 years

9. What types of games (i.e. genres) do you prefer? (**Check ALL that apply**)
     □ Shooter (e.g. *Unreal Tournament*)
     □ Action (i.e. Fighters, side-scrollers, platformers, etc.)
     □ Action-adventure (e.g. *Prince of Persia*)
     □ Construction & Management simulation (e.g. *Rollercoaster Tycoon*)
     □ Life simulation (e.g. *The Sims*)
     □ Strategy (e.g. *Starcraft*)
     □ Music/rhythm games (e.g. *Guitar Hero*)
     □ Role-Playing (e.g. *Final Fantasy*)
     □ Massively Multiplayer Role-Playing (e.g. *World of Warcraft*)

10. List as many games as you can remember playing in the last 2 years:

_____
_____
_____
_____
_____
_____
_____
_____

APPENDIX B

Interview Questions

World of Warcraft in-person interview guiding questions

1. How has the experience been for you since _____ (the last interview)?

2. Are you enjoying your experience? What do you like most about the game?

3. Have there been any specific challenges with the game since _____ (the last

interview)? What are the challenges?

4. How would rate your Spanish language skills?

5. Do you think you've improved your Spanish since _____ (the last interview)?

      a. Can you be more specific about the ways that your Spanish skills have improved?

6. Has your participation in the game world affected your Spanish development? How?

a. Is there anything about the game environment specifically that has helped you improve your

Spanish skills? What?

b. Has there been anything about the game environment that hinders your Spanish development?

What is it?

c. Have you interacted with native Spanish speakers in the game environment? In what ways?

i. Was this interaction positive? How?

ii. Have you learned anything from the native Spanish speakers that you haven't covered in

class? What did you learn?

iii. Have there been any challenges in dealing with other players online? What are the

challenges? (E.g., Native Spanish speaker language complexity, indifference towards participant,

unwillingness to group with participant, etc.)

1. Has your participation for the past _____ (length of time) in the game world

   influenced your feelings about the Spanish language? How so?

   8. Has your participation for the past _____ (length of time) in the game world

   influenced your confidence in your Spanish language skills? How so?

   9. Has your participation for the past _____ (length of time) in the game world

   informed your understanding of Spanish (Spain) culture? How?

APPENDIX C

Course Syllabus

Spanish: Massively Multi-player Online Writing

Course Overview

Introduction and Objectives

Spanish 108 is designed to enhance the student's ability to understand and produce written Spanish and to increase basic communicative skills. The goal of this course is to improve student knowledge of grammatical structures and vocabulary through writing. Opportunities for continued practice and language development is supported through the use of an online fantasy game called *World of Warcraft* (WoW). Play in this computer game environment will serve as the main context for all class activities.

Classroom time is devoted to activities that allow students to practice the grammar and vocabulary necessary for interacting in Spanish in WoW. Time will be spent preparing students to communicate in Spanish in the online virtual environment.

Important:

This is not an introductory Spanish course. A basic understanding of Spanish is required to be able to participate in this course. Grammar topics will be treated as an overview.

Textbooks

There is no textbook required for this course. Students will be directed to supplementary online materials for grammar, vocabulary, and writing practice.

Other resources

Students will need a laptop or desktop computer, a Spanish language copy of *World of Warcraft*, and a monthly WoW subscription. Laptops are preferred, as many in-class activities will require the use of an internet-connected device capable of running WoW.

Students will also need to create a Google account for written assignments. These include journals, special topics, and chatlog records.

Attendance Policy

Class attendance is **mandatory**. Regular class attendance is essential for successful completion of the course. Students are allowed **one (1)** absence per semester. For any absences beyond this, a student's FINAL GRADE will be lowered by **ten (10)** percentage points. Punctual arrival to class is essential. Every **three (3)** tardies will be counted as **one (1)** absence. Absences will only be excused by showing proof of emergency medical attention or by presenting a letter from the

Dean of Students. There are no exceptions.

Online attendance policy

Half of our class time during the first 2 weeks will be devoted to online activities. In these first **2 weeks** of the semester, there will also be one mandatory in-game meeting (1hr). Failure to log on to the game for this meeting will result in removal from the course. Students are expected to complete online activities within the online game for approximately 2-3 hours per week.

Assignments

(15%) Class Participation

Participation is a vital part of the language acquisition experience. The class participation grade will be based on both the quantity and quality of student participation. This includes student contribution in large group and small group activities. Class instruction will be dedicated to developing student knowledge of grammar and vocabulary. This discussion will be centered around our shared experiences in WoW. Students are expected to participate intelligently in class discussions and activities.

(30%) Online Activities

Students will be required to complete various activities within *World of Warcraft*. The instructor will provide specific instructions and assignments to be completed. Online participation will be verified via chat logs, screenshots, journal entries, and instructor in-game observation.

(25%) Journals

Students will write a minimum of **two** (2) journal entries per week. These journals will be written in Spanish and should be produced shortly after play in WoW and should be a minimum of 250 words in length. Journals can be written on any topic, though it is expected that they will center around your experience during play in WoW. You are encouraged to write as many journal entries as you wish.

(30%) Special Writing Topics

There will be 3 special topics for which students must write a 2-page essay. The first assignment will be to write a description of your online persona. You must describe your character (appearance, likes, etc.) and your expectations for the upcoming 10 weeks. Students will be expected to push themselves using language elements (grammar, vocabulary, etc.) discussed during class instruction to complete these assignments. The remaining 2 topics will be announced during the quarter.

Grading

Grades in the class will be based on the following criteria:

Class Participation	20%

Online Activities	20%	
Journals	30%	
Special Writing Topics	30%	
Total:	100%	

Weekly Schedule

Please note that topics and assignment due dates outlined here as subject to change. It is your responsibility to keep up with any changes. Weeks 7-10 will be left open for language topics that require special attention, which will be determined as the quarter progresses.

Week	Agenda	Homework
1	Introduction ● Setup ● First steps!	**ALL HOMEWORK MUST BE COMPLETED BY 12pm ON MONDAY**
2	Play-related topics ● Ser/Estar ● Present tenses	**Special Writing Topic #1** **Journals 1-2**
3	Play-related topics ● Preterit	**Journals 3-4**
4	Play-related topics ● Imperfect	**Journals 5-6**
5	Play-related topics Telling a story: ● Preterit vs Imperfect	**Journals 7-8**
6	Finer points: ● Preterit vs. Imperfect	**Special Writing Topic #2** **Journals 9-10**
7	Planning for action: ● Simple future	**Journals 11-12**
8	TBA - Play-relate topics	**Journals 13-14**
9	TBA - Play-relate topics	**Journals 15-16**
10	TBA - Play-relate topics	**Journals 17-18**

Finals Week	**Raid!**	**Special Writing Topic #3** **Journal 19-20**