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How Gamers Experience Informal Digital Learning of English Within Video Games and
Online Affinity Spaces

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This study aims to investigate how English language learning occurs within the experiences of playing online video games and interacting in related online affinity spaces. Although there have been past studies that have researched language learning in video games, both in formal and informal contexts, none have specifically explored how players experience language learning in both online video games and online affinity spaces.

This study used the concepts of informal learning, implicit learning, informal language learning, informal digital learning of English, affinity spaces, communities of inquiry and communities of practice as a guide for the research process. It also used qualitative content analysis as a method of data analysis. The participants of this study consisted of 6 Finnish males who currently attend upper secondary school in Finland. The data was gathered via semi-structured interviews.

The findings reveal that most participants experienced English language learning through playing video games incidentally and unconsciously. Essentially, most participants were unaware of language learning occurring while playing video games, and they did not intend to learn English while playing. Moreover, they learned mostly through interacting with the video game space itself while some also learned through playing with others. In regard to online affinity spaces, most participants learned English incidentally. Most participants experienced English language learning through interacting with the content within the online affinity spaces. More, specifically, when inquiring about new knowledge related to gaming, players were able to learn English at the same time. These findings reveal the potential for online video games and online affinity spaces to help gamers learn English.

The implications of this study include the potential for educators to utilize online video games and online affinity spaces in formal learning. This study is important to the field of digital language learning research as it presents a glimpse into the specific processes that occur within informal digital language learning.

Keywords: video games, English language learning, affinity spaces, informal learning, unconscious learning

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Introduction

The very first video games were quite primitive. In the mid-1970s their visuals were limited to black and white screens, simple shapes, and simple gameplay such as “shooting or moving towards other shapes” (Rudis and Poštić, 2017, p. 113). Since the 1980s, greater complexity has been added to video games such as narrative elements in the game *The Legend of Zelda (1986)*, complex city system games such as the Sim City series, and multiplayer games such as *Super Smash Brother Melee (2001)* for the Nintendo Gamecube (Esposito, 2005). Nowadays they can be quite complex with varying combinations gameplay mechanics, riveting visuals, and narratives (Rudis and Poštić, 2017). For example, the video game *Borderlands (2009)* is a modern video game shooter that combines narrative story telling while at the same time having an online multiplayer experience. The video game has transformed from a primitive digital medium to one where experiences can be shared with others online. Online video games have become one of the most popular forms of entertainment around the world. According to a report done by Limelight Networks, which was based on data from various countries such as Japan, France, and the United States, there has been a significant increase in the amount of playtime per week in individuals aged eighteen years and older; they spent about seven hours a week playing video games (Limelight Networks 2019).

Defining what video games are is not a simple matter since there is such a wide variety that exists. For the purposes of this study, since there was not a specific game that was investigated but several different online multiplayer games that were reported and discussed by the participants, Calleja’s (2011) definition of video games will be used. They define video games as a smaller sub-group within the larger overall concept of games (Calleja, 2011 pp. 11-15). Like any other game such as chess, there are rules that are built into the game that creates boundaries and promote certain behaviors within the game (Calleja, 2011, p. 13) For instance, in online multiplayer video games, they often require teamwork, cooperation, and communication to complete in-game objectives (Rudis and Poštić, 2017). For example, League of Legends is Massive Online Battle Arena (MOBA) where two teams battle each other to destroy the other team’s base (Riot Games, 2021). Within each game, each team must coordinate with each other to become more powerful than the enemy team by completing objectives (Riot Games, 2021). What makes them distinct from the rest of the family of games is that they all occur insides virtual spaces hosted within technology such as computers or video game consoles (Calleja, 2011 pp. 11-15).

There are several reasons people play video games. One of the main reasons which is for fun and enjoyment (Yang & Liu, 2017 in Arbeau et al., 2020; Dindar, 2018). Other reasons why people play video games is to create a self-identity, experience feelings of competence, and the relieve feelings of stress (Forsyth et al., 2017 in Arbeau et al., 2020). Another reason why people play video games is to feel social; the spaces that online video games have been found to host environments where participants can socialize with others (Caplan et al., 2009; Zhang & Kaufman, 2017). They also provide a space where friendships can exist both online and offline (Caplan et al., 2009; Zhaung & Kaufman, 2017). In a study conducted by Arbeau et al. (2020) they explored the experiences of online gamers and found that creating and maintaining social connections is one of the key factors in a rewarding gaming experience.

Video game players often branch out beyond the space of the game and into other online spaces that are related to video game in which they play. An example of an online space is YouTube; it is also one of the most popular online platforms with 245.1 million viewers in 2018 in India alone (Insider Intelligence 2019). Within these spaces, where video game players often seek to improve their gameplay or share their enjoyment of the game, it has been argued that players can learn 21st century skills (Gee, 2017). Furthermore, these online spaces, can be a host for online communities that promote interpersonal relationships between members (Malik & Haidar, 2020).

With the popularity of these mediums, there has been a growing number of studies that explore the benefits of digital mediums. For instance, it has been found that playing video games can be beneficial for people, whether it be mental health, emotional benefits, social benefits, or educational purposes (Granic et al., 2014; Klimova & Kacet, 2017). For instance, a study conducted by Sáez-López et al. (2015) where they investigated the implementation of MinecraftEdu in a middle school. They discovered that although the academic achievement of the students did not increase overall, the participants felt that MinecraftEdu enhanced their creativity and learning experience (Sáez-López et al., 2015). Within the context of education, online spaces and video games have the potential to be effective tools in helping people learn a second language (Peterson 2010; Reinders & Wattana, 2011; Butler et al., 2014; Vosburg, 2017; Wang & Chen, 2019). For example, Sundqvist and Wikström (2015) conducted a study that examined the relationship between informal digital gameplay and formal English vocabulary learning; what they found was that students who frequently played games had the higher English assessment scores compared to moderate and non-gamers. In another study done by Wang and Chen (2020), they explored the potential of using the platform YouTube to learn English. What they found was that YouTube could be used to learn English since

it had ways of interaction that were unique to the platform, and it was overall more interesting for the students compared to traditional classroom learning (Wang & Chen, 2020). Although there is much research on both online spaces and video games, there has yet to be a study conducted that looked at both simultaneously. Each of these studies investigate online spaces and video games independent of each other. The experience of video game players is not limited to the space of the video game itself but is connected to other online spaces that can be related to the video game (Gee, 2017). They extend into online affinity spaces, or an online space that many people share and share a common interest or topic (Gee, 2018). This qualitative study is on the topic of English language learning that occurs while playing video games and interacting in online affinity spaces. More specifically, the main goal is to shed light upon the specific experiences and phenomenon that people have when learning English through playing video games and interacting in related online spaces.

The first section of this study consists of the theoretical framework. This will include an explanation major themes: informal learning, informal learning of English, informal digital learning of English. It will also define the digital mediums of video games and affinity spaces. Then, the study will provide the present state-of-the-art research that currently exists about these two spaces. Next, the study will present the aims of the study as well as the specific research questions. Then there will be an explanation of the methodology and the introduction of the participants. In that section, qualitative content analysis and procedures will be explained. Lastly, the findings of this study will be presented as well as the limitations of the research, the potential for future research and conclusions.

2 Theoretical Framework

The theoretical background of this study consists of the major themes: informal learning, formal learning, implicit learning, informal digital learning of English, online affinity spaces, communities of inquiry, and communities of practice. This section will first define the theories informal learning, formal learning, implicit learning, informal digital learning of English and online affinity spaces. Then it will define communities of inquiry and communities of practice, then describe their relationship with online affinity spaces.

2.1 Informal Learning and Formal Learning

As defined by Schugurensky (2000), informal learning occurs “outside the formal school system, and are usually short-term and voluntary” (p. 1). The motivation to engage in informal learning originates from the individual learner or a collective of learners without external guidance from formal education (Livingstone, 1999). Informal learning can be self-directed, incidental, or acquired via socialization (Schugurensky, 2000). Self-directed learning refers to learning that is done by individuals who they themselves are not considered educators (Schugurensky, 2000). Incidental learning refers to learning experiences where the individual did not have any intention of learning anything from a given experience, but “she or he becomes aware that some learning has taken place” (Schugurensky, 2000, p. 4). Lastly, Socialization is defined as learning in a tacit way where there is no intention of learning and there is no awareness of anything being learned (Schugurensky, 2000).

According to Schugurensky’s definition the two major differences between these three forms of informal learning are the intentionality and the awareness. Intentionality refers to whether the purpose of the action; more specifically, whether there was the motive to learn or not behind the action (Schugurensky, 2000). For example, if a person wants to learn more about knowledge about the video game they play, they seek new knowledge on the internet. In this example, the person has the motivation to learn, therefore they have the intention to learn. Awareness refers to whether the person who is learning is cognizant, within the time of the learning experience, of their learning (Schugurensky, 2000). An example of this would be a person who watched online video tutorials for writing scientific papers. While they watch, they write down strategies and techniques they did not previously know. In this example, the person is aware that they are learning within the time of the learning experience, or in this case, the length of the online video tutorials.

The specifically differentiates the three forms of informal learning, self-directed, incidental and socialization, is what combination of intentionality and awareness each form possesses. In the self-directed form of informal learning, there is both the intention to learn and the awareness that learning will occur (Schugurensky, 2000). An example of this would be a person who wants to learn more about a specific historical event; with this intention, they seek knowledge from books, movies, and museums to learn more about the historical event (Schugurensky, 2000). In this example, the individual both has the intention to learn more about the historical event and is aware that they are learning about the historical event. In the incidental learning form, there is only the awareness that learning will occur without the intention of learning (Schugurensky, 2000). An example of this would be an individual who is watching the news to learn about current events; within the news segment, there is a small documentary about the unfair treatment of minorities in a period of history that the individual previously did not know (Schugurensky, 2000). In this example, the individual did not have the intention to learn something new, yet they were aware in the moment that they were learning something new. In the Socialization form there is a dearth of both intentionality and awareness in the learning process; this is also known as tacit learning is typically refers to beliefs, values, or behaviors in day-to-day life (Schugurensky, 2000). An example of this would be a teacher that treats female and male students differently in the classroom and, as a result, the students conform and accept this social behavior as the norm (Schugurensky, 2000). In this example, the students do not have the intention of learning this behavior nor are they aware of this behavior being imposed upon their beliefs. The Socialization form of informal learning occurs over a long period of time and individuals typically do not realize what they have learned until they enter a new social environment (Schugurensky, 2000). Furthermore, socialization is difficult to distinguish individual learning instances since it is often incorporated within other activities such as partaking in interrelationships (Livingstone, 1999).

The three forms of informal learning are wide in scope and can embody a variety of situations. This is due to the factors of awareness and intentionality being explicitly binary in their nature. A form of informal learning either has awareness and intentionality or does not. Table 1 shows the differences between the forms of informal learning through the factors of awareness and intentionality:

Table 1

Three forms of informal learning

Form	Intentionality	Awareness
Self-Directed	Yes	Yes
Incidental	No	Yes
Socialization	No	No

Formal learning “refers to the institutional ladder that goes from preschool to graduate studies” (Schugurensky, 2000, p. 1). It is a form of learning that is highly organized, structured, and regulated, usually by a governmental body (Dib, 2008). All factors of learning, such as objectives, methodology, or content, are often administered in accordance with a government’s educational standards (Dib, 2008). The primary example of formal learning is compulsory education that citizens must undertake, such as primary school, junior high school, and high school (Shugurensky, 2000). Within this setting, the primary source of learning comes from qualified teachers whose job is to aid students in meeting educational standards (Shugurensky, 2000).

In relation to informal learning, formal learning is distinctly different for it has a structured and organized curriculum that has certain expectations that learners need to meet (Hager & Halliday, 2012, pp. 1-2). Informal learning does not have an organized curriculum, nor does it necessarily have expectations that learners need to meet (Schugurensky, 2000). The processes of informal learning are not governed by educational standards and instead center around the interests and experiences of the individual learner (Schugurensky, 2000).

2.2 Implicit Learning

One of the learning processes that occur within learning spaces is implicit learning. According to Ivanchei (2014), there are four approaches to implicit learning. There is completely unconscious learning, completely conscious learning, controlled application of unconscious knowledge, and automatic application of conscious knowledge (Ivanchei, 2014).

In the completely unconscious learning approach, it describes implicit learning as “completely unconscious with its manifestation in behavior considered to be fully automatic” or a conscious decision being made (Ivanchei, 2014, pp. 5-6). As a result, it causes the inability to apply knowledge purposefully (Ivanchei, 2014).

In completely conscious learning, it defines learning to have innate consciousness to it (Ivanchei, 2014). In this approach, it defines that knowledge that is learned must be used with the control of the conscious and it cannot be processed unconsciously (Ivanchei, 2014). For instance, if one recognized patterns within an environment then used the newly acquired knowledge on a new task, then knowledge has been consciously learned and applied (Ivanchei, 2014).

In the controlled application of unconscious knowledge approach views implicit learning as a “continuum that stretches from completely unconscious to completely conscious” (Ivanchei, 2014, pp. 6). Essentially, this approach acknowledges that unconscious and unconscious learning does not exist within a binary but a spectrum of experiences. Furthermore, when implicit learning occurs, it is an experience where the representations of implicit knowledge can be difficult to express, and therefore, evaluate its occurrence (Mangan, 2003 in Ivanchei, 2014). Essentially, unconscious learning can occur, but one will realize that they have learned something although it is difficult to explain what occurred (Ivanchei, 2014).

In the automatic application of conscious knowledge defines the usage of knowledge from implicit learning as an experience one cannot report because an individual does not know the existence of the learning occurring or that they applied the knowledge to a task (Ivanchei, 2014). However, if it is presented to the learner, they can recognize that the application of knowledge has occurred (Ivanchei, 2014).

This study will use the controlled application of unconscious knowledge approach to implicit learning to define the cognitive state of learning subconscious and conscious state of learning. The other approaches such, as automatic application of conscious knowledge, are narrow in their explanation of implicit learning and are suited better for specific instances. It is best to use this approach because it encompasses the spectrum of completely unconscious implicit learning and completely conscious implicit learning (Ivanchei, 2014). Essentially, because the experiences of learning are unique, it is best to use an approach that can incorporate many experiences instead of a binary of experiences that are either completely unconscious or completely conscious. In this study, subconscious learning refers to the unconscious implicit learning part of the spectrum while the conscious learning refers to the conscious implicit learning part of the spectrum.

2.3 Informal Language Learning

The informal learning of language occurs outside of the structures of formal language learning (Bahrani et al., 2014). Informal language learning is not limited to the spaces in which it can occur; for example, informal language learning may occur between peers in educational institutions or outside of them (Marsick & Watkins, 1990 in Bahrani et al., 2014). Furthermore, it is not structured and does not have predetermined goals for the learners (Marsick & Watkins, 1990 in Bahrani et al., 2014). Formal language learning is often based within a classroom and has a standard of goals and expectations that learners need to meet (Marsick & Watkins, 1990 in Bahrani et al., 2014). It is characterized as highly rigid and teacher centered, meaning the learning occurs from a curriculum administered by a teacher (Marsick & Watkins, 1990 in Bahrani et al., 2014).

An example of this is found in a study done by Kurata (2010) where they investigated a student's learning of Japanese through social networks and socializing activities. This would be considered informal language learning because it relies only on the student themselves. It occurred without any predetermined goal for the learner, or a curriculum taught by a teacher.

2.4 Informal Digital Learning of English

IDLE is defined as the learning of English that occurs outside of the classroom (Lee & Dressman, 2018). More specifically, it involves, as defined by Ju Lee and Kilryoung Lee, "using self-directed English activities in informal digital settings, motivated by personal interests, and undertaken independently without being assessed by a teacher (2021, p. 359). IDLE activities involve the usage of digital mediums such as: online digital communities, social media, and massive online multiplayer video games (MMORPGs) (Lee & Kilryoung Lee 2021). Furthermore, Lai et al. (2015), defines IDLE activities by classifying them into the categories of form-focused IDLE activities and meaning-focused IDLE activities. Form -focused IDLE activities refers to using digital environments to specifically obtain better language use (Lai et al., 2015). An example of this would be using Google Translate or using language lessons on YouTube (Lee & Dressman, 2018). Meaning-focused IDLE activities were those that facilitates authentic language exposure with less emphasis on the learning of English (Lai et al., 2015). An example of this would be reading the news in English, playing online video games in English, or communicating in online spaces (Lee & Dressman, 2018). Lastly, the two measurements of IDLE activity are quality and quantity (Lee 2019; Lee & Kilryoung Lee 2021; Lee & Dressman, 2018). Quality is defined as the diversity of digital mediums being used; for example, if an individual engages in high quality IDLE, then they use many different digital mediums (Lee

2019; Lee & Kilryoung Lee 2021; Lee & Dressman, 2018). Quantity is defined as the amount of time spent using the digital mediums; for example, if an individual engages in high quantity IDLE, then they spend a substantial amount of time using digital mediums (Lee 2019; Lee & Kilryoung Lee 2021; Lee & Dressman 2018).

2.5 Affinity Spaces

Affinity Spaces are places, which can be physical or online, where people are organized in “social and cultural settings...shared by many people” and “who are connected by a shared interest or passion” (Gee, 2007 in Gee, 2018, p. 8).

Gee and Hayes (2012) explain that there are certain factors that make up affinity spaces:

1. The spaces are united by a common passion.
2. Not segregated by age, race, class, gender, disability, or skill level
3. The level of participation is voluntary.
4. Tacit knowledge is used and honored; explicit knowledge is encouraged; knowledge is dispersed and is accessible
5. Leadership is porous, leaders are resources; roles are reciprocal; many routes to different roles
6. A view of learning that is individually proactive but does not exclude asking for help.

These characteristics can apply to various kinds of Affinity Spaces. Since they are not limited to any specific kind of space, physical or non-physical, these characteristics certainly apply to online communities.

2.6 Communities of Inquiry and Practice

A model of online learning that is related to online affinity spaces is Communities of Inquiry (CoI). CoI is based on three principles that explain the framework of “the critical dimensions that shape a students’ online learning experience” (Garrison et al., 1999 in Kovanović et al., 2018, p. 45). Cognitive presence relates to the problem solving and critical thinking aspect of the online space (Garrison et al., 1999 in Kovanović et al., 2018). Cognitive presence is based on Dewey’s four phases of practical inquiry. These four phases are: triggering event, exploration, integration, and resolution (Garrison, 2014 in Cooper & Scriven, 2017). The triggering event refers to a problem or dilemma is

found; exploration refers to important factors of the problem becoming identified; integration refers to the possible solutions synthesizing into a final solution; resolution is when the final solution has been implemented and the problem has been solved (Garrison, 2014 in Cooper & Scriven, 2017). Social presence is about the elements that make up the “social climate” such as group interaction, or inter-group relationships (Garrison et al., 1999 in Kovanović et al., 2018, p. 46). Lastly is the teaching presence, which describes various pedagogical sides of the online space such as course instruction and management (Garrison, Archer, & Archer, 1999 in Kovanović et al., 2018). An example of empirical use of CoI can be found in the study done by Cooper and Scriven (2017). They conducted a case study where they used the CoI model to design a digital environment for university students (Cooper & Scriven, 2017). The digital environment was made for students for the purpose of providing useful information such as information regarding academic support and a list of approved websites and online journals. They attempted to improve cognitive presence in their digital environment through incorporating weekly discussions about campus activities or topics (Cooper & Scriven, 2017). The social presence was promoted through the space within the digital environment dedicated to student socialization (Cooper & Scriven, 2017). Within this space, it contained a place where students could introduce themselves and to hold social conversations (Cooper & Scriven, 2017). The teaching presence was implemented through teacher-peer features, weekly recordings, and an explanation of learning communities meant to invite participants to join in the discussions (Cooper & Scriven, 2017). In this case study, it shows how CoI is implemented as a model for learning in online spaces. It is not necessarily a description of the settings of the online space, but a way to understand how learning in online spaces occur.

Similarly, Communities of Practice (CoP) have three components: a joint understanding of a goals between members, engagement from all members that leads to a cohesive social group, and a place where knowledge and other resources is accessible to members (Razak & Saeed, 2015). For example, in the study done by Malik and Haidar (2020), they investigated whether online Twitter-based Korean pop music fandom community known as stan twitter operates as a CoP. In their results, they found that the stan twitter fandom has the shared goal of supporting their favorite artists, has a cohesive social group with interpersonal relationships between members of the fandom, and the shared online space of Twitter being a place to access knowledge and facilitate discussion (Malik & Haidar, 2020). A fandom is defined as a community “composed of people with diverse linguistic and cultural backgrounds, a variety of skillsets and aptitudes, and different personalities...people interact, intermingle, and communicate with each other...these interactions carry the potential of increasing their knowledge and awareness” (Malik & Haidar, 2020, pp. 1-2). They concluded that

stan twitter does function as a CoP because of the characteristics of their online activities (Malik & Haidar, 2020). This study shows that CoP is a way to define activities that occur within communities, whether online or offline.

The ways in which CoI and CoP are related to online affinity spaces is the setting of the space. CoI and CoP, although different in their approaches, are the theories that define what kinds of activities are occurring within a given space. CoI relates to how learning occurs within spaces because its model involves characteristics that more related to learning ie teaching presence (Garrison et al., 1999 in Kovanović et al., 2018). Thus, the studies that involve the usage of the CoI model are related to formal learning spaces (Joksimović et al., 2018; Cooper & Scriven, 2017). CoP relates to how practices occur within a given community. Its characteristics are general and can be applied to both instances where the community's goal is to learn something new, such as a new language, or to give support to idols (Malik & Haidar, 2020). Online affinity spaces relates to defining a space rather than defining what occurs within the space. Therefore, CoI and CoP related to online affinity spaces because they can occur within the affinity space. However, the relationship cannot be defined as the other way around since affinity spaces are related to the space and CoI and CoP refers to the activities that occur within the space.

3 Literature Review

The literature review of this section will present the state-of-the art research that has been conducted in the following topics: IDLE, video games, and online affinity spaces. First it will explore the previous research of IDLE. Then it will show the research conducted in video games about both informal and formal contexts. Lastly, this section will present the previous findings about online affinity spaces.

3.1 IDLE

The previous research that has been done in IDLE exploring the quantity and quality of IDLE, its relationship with second language (L2) motivation, and how quality of IDLE relates to the improvement language learning outcomes (Lee & Dressman 2018; Lee 2019; Lee & Kilryoung Lee 2021). In the study published by Lee & Dressman (2018), they investigated how quality could improve English learning outcomes in Korean university students. The IDLE activities they explored were form-focused and meaning-focused activities (Lee & Dressman, 2018). In the context of this study, the digital mediums the participants reported to engage in were playing online video games, using google translate, and watching U.S. media (Lee & Dressman, 2018). What they found was that a higher quality of IDLE activities contributed to a higher willingness to communicate online and higher vocabulary scores (Lee & Dressman, 2018).

In the study conducted by Lee (2019), they investigated the relationships between quantity and quality of IDLE and L2 English vocabulary measures. They also explored both form-focused and meaning-focused IDLE activities (Lee, 2019). They discovered that quantity was not a variable that necessarily led to higher English vocabulary tests (Lee 2019). Lastly, it was quality that affected vocabulary acquisition, suggesting that individuals would benefit more from increasing the different kinds of IDLE activities they engage in (Lee 2019).

In another study done by Lee and Kilryoung Lee (2021) examined how IDLE and L2 motivational system influence foreign language enjoyment in different levels of schooling ranging from middle school to university. The L2 motivational system refers to how a student perceives themselves knowing a second language, and how students' motivation to meet external expectations of peers, teachers, or parents (Lee & Kilryoung Lee, 2021). They determined that students who practiced IDLE activities frequently were more likely to find more enjoyment when learning English (Lee & Kilryoung Lee, 2021).

These studies reveal how the different factors that can positively affect IDLE activities such as a learners' motivation to learn and high quality, or diversity, of activities (Lee 2019; Lee & Kilryoung Lee 2021). They also display how various range of IDLE activities, such as video games or watching media can contribute to increasing a learner's English capabilities (Lee & Dressman, 2018). Furthermore, it reveals the potential for digital mediums to help foster the learning of English (Lee 2019, Lee & Kilryoung Lee 2021; Lee & Dressman 2018). Lastly, it is important to note that these studies explore IDLE through a wide net of activities and not through any specific activity (Lee 2019; Lee & Kilryoung Lee 2021; Lee & Dressman 2018).

3.2 Video Games

3.2.1 Video Games in Formal Learning Contexts

There have been several academic studies conducted on video games in the formal context. This formal context refers to the in-class context. In a study done by Alshaiji, they studied whether playing video games could benefit Saudi children's acquisition of English vocabulary (2015). What was determined that overall, if video games were used as a tool in the teaching of English vocabulary, then the vocabulary scores of the children were significantly higher than those who were not using video games (Alshaiji, 2015). The reasoning behind their result was that in the environment of classes where video games were used, it was pleasant and comfortable for the students; this resulted in more participation in class and an increase in vocabulary retention (Alshaiji, 2015).

In a study done by Ebrahimzadeh and Alavi, they investigated how the game *Warcraft III: The Frozen Throne* affected language learning motivation (2017). More specifically, they had student participants interact with video games in different ways: a reader being someone who engages with the game's story, a player who is the one playing the video game, and a watcher who observes two other people play the game (Ebrahimzadeh & Sepideh, 2017). What they found was that overall, participant's motivation for language learning increased over a period with watchers having the highest motivation compared to others (Ebrahimzadeh & Sepideh, 2017).

In another study that focused on digital game-based learning, Yang and Quadir studied the usage of the educational game *ELORPG* (2018) and how prior knowledge could affect the learning performance and anxiety in digital-game-based-learning. *ELORPG* was a game designed specifically to create a space where students could learn English (Yang & Quadir, 2018). What they found was that students were able to improve their English skills through playing *ELORPG* because it made the

language learning experience more enjoyable overall (Yang & Quadir, 2018). It was also reported that the students that had previous experience in playing online video games were more interested in the objectives of the game itself, such as the game's fighting and the rewards gained from it, than the objective of learning a language (Yang & Quadir, 2018).

In the research by Chotipaktanasook & Reinders (2018), they investigated the differences between the interactions of 2nd language learning (L2) within massive multiplayer online roleplaying games (MMORPGs) and the formal classroom amongst Thai English foreign language learners. MMORPGs are defined as multiplayer video games where a plethora of players can exist within the same world at the same time; gameplay can be individualistic or within a team (Chotipaktanasook & Reinders, 2018). They looked at the way in which participants engaged in communication with each other during class and during gameplay (Chotipaktanasook & Reinders, 2018). What was concluded from their findings was that MMORPGs increase the amount and the quality of L2 interactions amongst the Thai participants (Chotipaktanasook & Reinders, 2018). It was specifically the environment and characteristics of the game that enabled the students to speak more English (Chotipaktanasook & Reinders, 2018).

The findings from these studies indicate that video games used within formal learning can be beneficial to learners. More specifically, it enhances the learning experience by changing the setting that learning can take place through incorporation of a virtual world into formal learning. They also found that it can enhance the motivations of the learners and the enjoyment of the language learning process. These findings show the potential for video games to enhance language learning within the context of formal learning.

3.2.2 Video Games in Informal contexts

Just as there has been studies done about video games in formal contexts, there has also been a few that have been done regarding the informal context. The study done by Horowitz that focused on willingness-to-communication (WTC) and how it relates to playing video games informally (Horowitz, 2019). They investigated seventy-six Spanish speaking university students who were enrolled in English language courses who also played online multiplayer video games in their free time (Horowitz, 2019). Then, they gave the participants questionnaires and analyzed them quantitatively (Horowitz, 2019). The analysis revealed that there was a significant positive relationship between Puerto Rican university students who played MMORPGs in their free time and their WTC in English

(2019). Moreover, the informal setting of video games allows for lower anxiety levels that enables language learning (Horowitz, 2019).

In another study done by researchers Sundqvist and Wikström (2015), they explored whether there was a correlation between digital gameplay and English vocabulary acquisition within a group of Swedish teenagers. They investigated the relationship between the amount of time spent gaming outside of school during their free time and the participants' English vocabulary (Sundqvist & Wikström, 2015). The findings from their study show that there is a positive relation between digital gameplay and the acquisition of English amongst boys with some of the participants stating that they prefer to learn languages within digital games instead of the classroom. One thing to note from this study is the fact that there was a discrepancy between the boys compared to the girls simply because there were fewer girls that played video games on a regular basis outside of school (Sundqvist & Wikström, 2015).

The findings made by Sundqvist (2019) sought to explore the relationship between the amount of time spent playing video games outside of school during free time, single player games, multiplayer games, and non-gamers with English vocabulary test measures. They wanted to indicate whether there was a difference between the game types that were being in relation to English vocabulary test measures (Sundqvist, 2019). The analysis revealed that playing video games is related to higher English vocabulary proficiency with the amount of time spent playing being the most significant factor (Sundqvist, 2019). Furthermore, they determined that compared to their non-gamer counterparts, gamers relatively speaking had a higher level of vocabulary (Sundqvist, 2019). Lastly, they found that those who played multiplayer online games and massive online multiplayer video games had higher English vocabulary proficiency compared to those who only played single player games (Sundqvist, 2019). This result suggests that for more English acquisition, learners could move to playing more online multiplayer games (Sundqvist, 2019).

In a study conducted with a similar age group of children ages 11-15, Rudis and Poštić (2017) examined the influence that video games played during their free time may have on the learning of English. The results indicated that playing video games had a positive effect on learning English, showing that the setting of the video game itself forces the player to confront and learn new words and phrases they did not previously know (Rudis and Poštić, 2017).

Throughout all the studies, there is a positive relationship between playing video games in informal settings and acquiring better English proficiency. These results were found both in ages as young as 11 years old and university age (Rudis and Poštić, 2017; Horowitz, 2019). Furthermore, there is

evidence to suggest that playing online multiplayer video games could lead to higher English proficiency compared to single player games (Sundqvist, 2019). Overall, the research indicates a high potential for video games to be beneficial to English learners and it is important to research this topic further.

3.3 Online Affinity Spaces

There have been numerous studies done on the language learning within Online Affinity Spaces (OFS), the majority of which are done on fandom spaces. In a study done by Shafirova and Cassany (2019), they investigated the language learning that occurs within the Brony Community. The Brony community is an online fandom that follows the American television cartoon *My Little Pony: Friendship is Magic* (Shafirova & Cassany, 2019). They investigated the practices of the two groups from Russia and Spain to see how Bronies use English in their typical online activities (Shafirova & Cassany, 2019). What they found was that the practice of translating episodes and writing fanfiction, they would create content in English, and through that process they would acquire English language skills (Shafirova & Cassany, 2019). The participant's motivations lie not only in the enjoyment of participating in fandom activities, but also in the motivation to become better at English overall (Shafirova & Cassany, 2019).

In another study done in 2019, researchers studied three case studies to see how digital literacy practices that occur in online fandoms could allow fans to further develop their language learning (Vazquez-Calvo et al., 2019). With the three case studies, Selo, Nino and Alro, each one of them experienced language learning in their own unique way (Vazquez-Calvo et al., 2019). Selo, through translating in a collaborative manner through asking other fans to proofread their work, becoming co-learners of both Spanish and English (Vazquez-Calvo et al., 2019). Nino learned via autodidactic ways, using Google to translate and learn Japanese and Catalan (Vazquez-Calvo et al., 2019). Alro learned also via translating all the while being motivated by the fanfiction reader's want for realistic adaptation and originality (Vazquez-Calvo et al., 2019). Although taking different paths, all three of the participants were able to advance their L2 skills through their involvement in the online fandom Affinity Space. In both examples, there is evidence to support the claim that Affinity Spaces can be not only a space for members to enjoy their hobbies, but to also learn and develop their language skills.

4 Aim and Research Questions

This study will explore the ways in which people whose hobby is playing online video games experience learning English as a second language. Not only will the language learning that occurs within playing within online video games, but also the language learning that occurs within the Affinity Spaces related to the video game being played. There are several studies that have looked into how IDLE (Informal Digital Learning of English) activities can potentially aid in English language learning; however, none of the studies on IDLE have explored the ways in which people experience IDLE (Lee 2019, Lee & Kilryoung Lee 2021; Lee & Dressman 2018). None of these studies on any particular IDLE activity, instead looking at IDLE activities in a more generalized way (Lee 2019, Lee & Kilryoung Lee 2021, Lee & Dressman 2018). This study will address this gap in IDLE research by focusing on two IDLE activities: playing online multiplayer video games, and interaction in online affinity spaces. This study will views IDLE as a process where implicit learning of English occurs in online communities that exist in digital environments (Ivanchei, 2014, Gee, 2018, Lee 2019, Lee & Kilryoung Lee 2021; Lee & Dressman 2018). Furthermore, to shed light upon these experiences, it will use a qualitative methodology to explain IDLE phenomenon in the aforementioned activities.

The research questions for the study are the following:

- How do video game players experience the process of IDLE through playing online multiplayer video games?
- How do video game players experience the process of IDLE through the affinity spaces affiliated with online multiplayer video games?

5 Methodology

In this study, the question of whether to choose qualitative or quantitative methodology came up. Optimally, the data that would be collected would be both qualitative and quantitative. However, with this study, there was a limited amount of time and ability that could be allotted to the study. Therefore, a qualitative approach was chosen.

5.1 Qualitative Research

Qualitative research differs from quantitative research in that the former tends to have smaller sized data sets and usually focuses on the experiences of the individual. As Gelo, Braakmann and Benetka in 2008 put it, “qualitative approaches in turn, tend to comprehend, i.e. aspire to reconstruct the personal perspectives, experiences and understandings of the individual actors” (p. 272). While quantitative research serves to prove a hypothesis, in qualitative research, the hypothesis develops throughout the research process with the result and the analysis of it becoming the theory according to the observations made. Put simply, instead of looking for a specific, preconceived phenomenon within the data, the researcher analyzes the data and develops a new conception or theory (Gelo, Braakmann & Benetka, 2008). The way of ‘looking’ takes many forms such as ethnography, grounded theory, or narrative research. In this study, the type of analysis that was used was qualitative content analysis.

5.1.1 Qualitative content analysis

Qualitative content analysis is the process of finding meaning within qualitative data by allocating assigned sections of data into a coding frame containing various categories related to the research questions (Schreier, 2014). The coding frame includes main categories that are “aspects of the material which the researcher would like more information,” and subcategories that “specify what is said in the material with respect to these main categories” (Schreier, 2014, p. 174). The coding frame is essentially a lens, which is made prior to analysis of the data, that will be used to describe the different units of the material. There are three key features of this qualitative approach. First, it allows the researcher to separate the data into what is and is not relevant to the research question (Schreier, 2014). Secondly, the overall process is highly detailed in its examination of the data and that it must follow an array of steps (Schreier, 2014). These steps include: deciding on the research question, selecting material, building a coding frame, segmentation, trial coding, evaluating and

modifying the coding frame, main analysis, and presenting and interpreting findings (Schreier, 2014). Lastly, content analysis is flexible and can approach the data using either or both concept-driven or data driven categories (Schreier, 2014). Qualitative content analysis was chosen due to these key features. Due to the lack of resources and time that could be input into this study, being able to narrow the amount of material to be examined and analyzed was beneficial. Furthermore, its focus on data driven categorization enables the researcher to fully examine the phenomenon at hand.

5.2 Participants & Recruitment Procedure

The way in which the sample size was created was through snowball sampling. Snowball sampling is a non-probability method where subjects are found through mutual acquaintances. In this instance, a secondary school in Oulu, Finland was previously known and was contacted. A total of five students agreed to participate. Furthermore, other mutual friends of the researcher were contacted to be a part of the study as well with one secondary school student agreeing to participate. All-in-all, the participants in this study were Finnish high school males between the ages of 17 and 19. All participants currently live in Finland. They attend secondary school in Northern Finland between 1st upper secondary year and 3rd upper secondary year. These participants were the most available to be interviewed during the period of data collection which was during the months between November and December of 2020. Furthermore, high school students were chosen since there is a need to expand on the data involving that age group, and because they would still be amid their mandatory English language learning courses (see [Table 1](#)). The participants' names were anonymized. The names were chosen by the participants. Table 1 contains the following information on the participants: age, gender, grade level, ethnicity, native language, proficiency in English (London School of English), and other languages known.

Before conducting the semi-structured interview, each participant had to fill out a consent form. For the participants who were below the age of 18 and who were contacted via English teacher at the secondary school, they had to receive permission from both a parent and their school principal. For the participants who were 18 years old and above, they could fill out their own consent form. Furthermore, with each consent form, a copy of the interview protocol was also provided, giving the participants the opportunity to see what questions were going to be asked.

Table 1*Participant descriptions*

Names	Ben	Jacob	Scrappy	Santi	Ekkapekka	Nibu
Age	17	19	17	17	18	17
Gender	Male	Male	Male	Male	Male	Male
Grade Level	1st year Upper Secondary	2nd Year Upper Secondary	2nd Year Upper Secondary	1 - 2 Upper Secondary	3rd year Upper Secondary	2nd Year Upper Secondary
Ethnicity	Finnish	Finnish	Finnish	Finnish	Caucasian	Finnish
Native Language	Finnish	Finnish	Finnish	Finnish	Swedish	Finnish
Proficiency in English (London School of English)	B2 or B1	C1	B2	C1	C1	B2
Other Languages	A little bit of Swedish	A little bit of Swedish and Russian	A little bit of Swedish	A little bit of Spanish and Swedish	Finish, English, A level French	A little bit of Swedish

5.3 Materials**5.3.1 Self-report Instruments**

The participants were sent two self-report instruments. The first was a brief questionnaire in to collect data on the backgrounds of the participants: age, gender, grade level, ethnicity, native language, and other languages. The second self-report instrument was the London School of Proficiency test (London School, 2021). The purpose of this test was to evaluate the English proficiency of the participants. The English levels can range from the lowest being A1/2 all the way to C2 which is the most advanced (London School, 2021). (Table 2 shows the participants' levels of competencies).

The setting of the semi-structured interview was through the free application Zoom. It was chosen due to its ability to record audio during an active meeting, it's ability to have a live video shown,

and, most importantly, due to the Covid 19 pandemic it was much safer to interview participants at a distance. Before the interview started, the participants were asked if they would prefer to show have their video cameras on or off. This was done to make sure the participants felt comfortable throughout the interview process.

Table 2

Levels of English Competency

Level	Class	Description	CEFR Level*
9	Very Advanced	I speak and understand English completely fluently	C2
8	Advanced	I speak and understand very well but sometimes have problems with unfamiliar situations and vocabulary	C2
7	Pre-advanced	I speak and understand well but still make mistakes and sometimes people do not understand me clearly	C1
6	Upper Intermediate	I can communicate without much difficulty but still make quite a lot of mistakes and misunderstand sometimes	B2
5	Intermediate	I can speak and understand reasonably well and can use basic tenses but have problems with more complex grammar and vocabulary.	B1
4	Low Intermediate	I can make simple sentences and can understand the main points of a conversation but need much more vocabulary	B1
3	Pre-intermediate	I can communicate simply and understand in familiar situations but only with some difficulty	A2
2	Elementary	I can say and understand a few things in English	A1/2
1	Beginner	I do not speak any English	

*CEFR - *The Common European Framework of Reference for Languages*

5.3.2 Semi-Structured Interview

There are several different styles of interview such as structured or unstructured. For the purposes of this study, a semi-structured interview was chosen as the way to collect data. It was chosen due

to its ability to have variables that are based off previous research while at the same time allowing for participants to shed light on the entirety of their experiences (Galletta, 2013). These new experiences could create new perspectives or show new phenomena related to the topic of IDLE. It was imperative to the researcher to capture the entirety of the participants' experience of IDLE and not exclude any details due to the nature of the interview.

The development of the questions was based on the focus of this study. Since it was a semi-structured interview, the questions that were asked were made to guide the participant into fully describing the experience of language learning to the best of their ability. The process of the interview protocol creation was based off the model created by (Castillo-Montoya, 2016). This process involves four phases: ensuring interview questions align with research questions, constructing an inquiry-based conversation, receiving feedback on interview protocols, and piloting the interview protocol (Castillo-Montoya, 2016). In the context of this study, the questions were first made to prompt thoughts and ideas but did not use the exact wording of the research questions. Secondly, the questions were arranged in a logical order to allow for a natural flow of conversation to occur. Thirdly, the questions were sent to the supervisor of the study. This occurred several times with the supervisor providing feedback each time. It was through this phase that the questions were finalized. Lastly, the interview questions were tested on a real respondent, an individual who part of their official data collection is not. Not only did this allow for feedback from the respondent, but allowed the researcher to practice conducting an interview, and to make sure the digital setting of the interview was working properly.

5.4 Data Collection Procedure

After the participants were found and their consent was given, then the data collection could occur. A time and day were scheduled for each of the participants. Each interview was to be between thirty minutes to an hour long depending on how much each participant spoke. At the time of each interview, the participant was given a link to a Zoom call where the interview took place. Each interview had its only its audio recorded. At request of the interviewer, the participant was asked whether they would like to have their cameras on or off. After the interview was over, each of the audio files were saved. They were then uploaded onto the online application Otter.ai where the process of transcription occurred. Once the transcriptions were created, then they were transferred onto Nvivo 12 where they were to be analyzed by the researcher.

5.5 Qualitative Content Analysis Procedure

According to Schreier (2014), there are eight steps in the qualitative content analysis procedure: Deciding on the research question, selecting the material, building a coding frame, segmentation, trial coding, evaluating and modifying the coding frame, main analysis, presentation and interpretation of the findings. In this study, two research questions were chosen. The first one is *how do video game players experience the process of IDLE through playing online multiplayer video games?* The second one is *how do video game players experience the process of IDLE through the affinity spaces affiliated with online multiplayer video games?* In the second step of selecting the material, it was done by sorting through the data and choosing what was and was not relevant in regard to answering the research questions. The chosen tool for this step, and subsequent steps, was NVivo 12. According to Schreier (2012), it is easier to include data that is irrelevant than excluding it at a later time rather than missing out on key points of data. There was a thorough process of selecting what material was relevant, with multiple rounds of interpretation used to make sure nothing was left out. In the third step of the process, the initial coding frame was created. According to Schreier (2014), the coding frame consists of “main categories...material about which the researcher would like more information, and subcategories” that are used to “specify what is said in the material with respect to these main categories” (p. 174). This coding frame can be seen below. As was stated earlier, the coding frame can be created using a data-driven approach or a concept-driven approach (Schreier, 2014). The main categories were created using a concept-driven approach. More specifically, the main categories were based off of the inquiries asked of the participants such as motivation. The subcategories were made using subsumption which is a data-driven approach. Subsumption involves the process of reading the data, looking for a relevant concept to appear, then checking if they concept has been made into a category; if it has not been made into a category or subcategory, then the concept is made into a category or subcategory (Schreier, 2014). The fourth step of the process is Segmentation which involves “dividing the material into units in such a way that each unit fits into exactly one subcategory of the coding frame” (Schreier, 2014, p. 175). In this study, a thematic approach was used where the topic change in the material corresponds to one unit. For example, when one participant starts speaking about their experience of learning by talking with others, that whole section would be considered as one unit. In the fifth step, trial coding was done. This refers to “the coding frame” being “applied to the material during two rounds of coding, following the same procedure that will be used during the main coding” (Schreier, 2014, p. 179). Though, note that not all the material is to be coded, just a part of it (Schreier, 2014). The

purpose of this step is to inform the researcher of what to do in the sixth step of evaluating and modifying the coding frame. If the subcategories are unequivocally accurate to the units, meaning the units fit under the subcategories in a way that align with the definitions of the subcategories, then no changes need to be made. In this study, several adjustments had to be made, especially since the data from the different participants varied. Lastly, steps seven and eight are the main analysis, and the presentation and interpretation of findings. In the main analysis, the remaining data that has not already been divided into coding units is divided, then these units are assigned into the categories of the coding frame (Schreier, 2014). After the coding units are divided, then the frequency of the coded references was counted. Both main and sub-categories had their frequencies counted. The eighth step will be seen in the subsequent section of this study. The coding frames can be seen in figures 1 and 2:

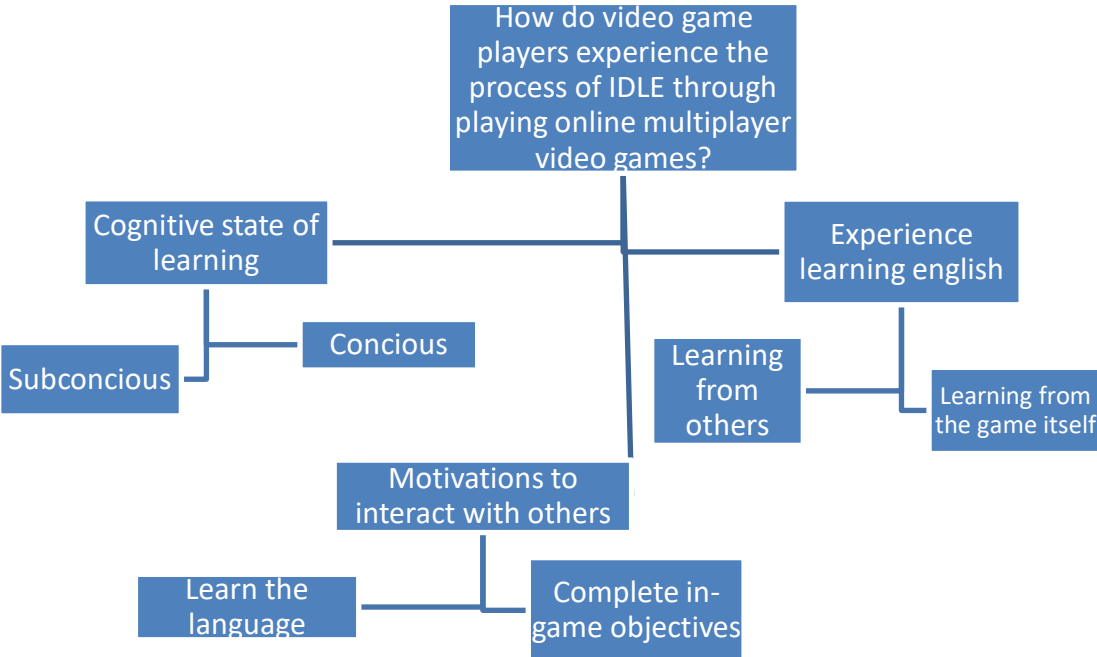


Figure 1. Coding Frame for first question

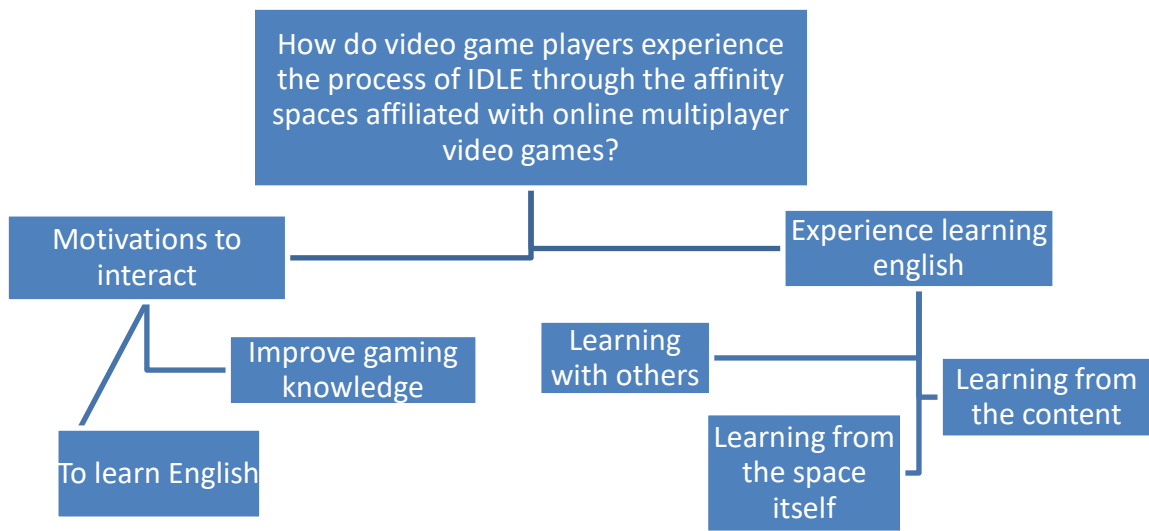


Figure 2. Coding Frame for second question

6 Results

In this section, the results of the qualitative content analysis will be presented. The purpose of this section is to provide an explanation of the main and sub-categories. Within this explanation, parts of the transcription will be shown to help provide a detailed description of the phenomenon of IDLE that was occurring. Furthermore, the frequencies of the references will also be provided to show which categories were the most relevant.

6.1 How do video game players experience the process of IDLE through playing online multiplayer video games?

The first research question was focused on IDLE that occurred through playing online multiplayer video games. After following the process of creating the coding scheme according to Schreier's (2014) definition of subsumption, the following categories were found: cognitive state of learning, motivations to interact with others, and experience learning English. Within the data there are two subcategories of cognitive state of learning that are named *subconscious* and *conscious*. Within Motivations to interact with others, there are the two sub-categories called *learn the language* and *complete in-game objectives*. Lastly, in the third category Experience learning English, there are two sub-categories *learning with others* and *learning from the game itself*.

6.1.1 Cognitive state of learning

The cognitive state of learning refers to whether the participant was subconsciously or consciously learning. This cognitive state of learning uses the controlled application of unconscious knowledge approach as defined by Ivanchei (2014). The results show a total of 21 coded references to the cognitive state of learning, with 14 references to the unconscious and 7 references to the conscious. Four of the participants' references were being experienced IDLE subconsciously, 1 participant experienced IDLE consciously, and 1 participant did not report either. The participant who did not report on their cognitive state of learning because the topic did not arise during the interview.

Table 1

Cognitive State of Learning

Cognitive State of learning	Coded References
Subconscious	14
Conscious	7

Subconscious

During gameplay, participants report not being aware that they were learning English while they were playing online multiplayer video games. A total of 4 participants with 14 references reported that their cognitive state of learning was subconscious. All 4 participants, Ben, Ekkapekka, Jacob and Scrappy, describe not paying attention to the learning of English while playing online multiplayer video games. It was only afterwards that they realized that they had been learning English during gameplay. For example, Scrappy describes his experience as such:

“You do learn English from the other players in the game, and from the game itself. And you might not even realize it, but you have learned how to say some things or phrases and your opinions in English, when you have played the game and you didn't even study them.”

For Scrappy, he plays the game for their enjoyment and do not have any intent of learning any English, yet they learn English regardless. Their experience of subconscious learning comes from learning from other players who are playing the game and from aspects of the game itself. Furthermore, he learned how to pronounce English vocabulary from other players during gameplay. From the game itself, he learned much of their vocabulary from reading the words in the interface of the game.

In the case of Ben, he expressed experiencing subconscious learning. The way they experience subconscious learning is through figuring out what a word means through the context of other words that they know. If they do not figure out what the word means immediately, then they learn the word through repetition, by encountering the word multiple times, then learning what the word means through the game's context.

For Jacob and Ekkapekka, they expressed similar experiences to subconscious learning. Both of them stated in their interviews that they started their learning of English through video games at an early age. For Jacob, they started when they were nine. For Ekkapekka, they started when they were in third grade. Ekkapekka states that they do not remember the moment they learned English:

“I feel like it was more subconscious, because I don't remember. I don't remember the day when English just clicked in my head.”

Ekkapekka also said that what they do remember was a transition period between beginning to know English and understanding it at a much higher level. He describes this period as happening quickly. For Jacob, they could not explain exactly what happened since it happened when they were young. What they could remember was absorbing the language and becoming better at English.

Overall, these results in this category that several students have learned English without awareness of this phenomenon, though not all of them share it. Yet within experiencing this phenomenon, there are unique experiences within them.

Conscious

During gameplay, only one of the participants, Santi, reported being aware that they were learning English while they were playing. He states that:

“There's no matter if I'm playing like a Call of Duty or some other game. So when I come across a new kind of word, I would like to understand it. So I usually maybe look it up if I don't know it.”

For Santi, their awareness of learning English is tied with their motivation to learn English. They talk about learning English through video games as a fun experience and not a boring school lesson. Santi clearly shows that they are making a conscious effort to learn English while they are playing video games. They even have a strategy of how to learn new English vocabulary if they don't know a word.

These results show that most the participant's experiences are unaware of their learning of English during gameplay. In the case that they are aware, they are making a conscious effort to improve while they are playing the game.

6.1.2 Motivation to interact with others

The motivation to interact with others refers to the reasons as to why participants are interacting with other players while playing video games online. The sub-categories in this section are *learn the language* and *complete in-game objectives*. *Learn the language* refers to communicating with others to practice and learn English, while *complete in-game objectives* refers to communicating with others for the sole purpose of playing and completing the goals set within the game itself. The results show a total of 27 references with 1 participant experiencing *learn the language* and the other 5 participants experiencing *complete in-game objectives*. *Learn the language* only had 3 coded references while *complete in-game objectives* had 24 coded references.

Table 2

Motivation to Interact with Others

Motivation to interact with others	Coded References
Learn the language	3
Complete in-game objectives	20
Total	23

Learn the language

This sub-category is defined as communicating with other players during gameplay with the purpose of learning and practicing English. One participant, Santi, reported experiencing this phenomenon. They state that:

“Well, maybe my motivation would be improving my English and becoming better speak when speaking English. You can always improve with speaking of English.”

In the case of Santi, they see playing online video games as an effective way to improve their English skills. They state that when they communicate with strangers, they are often quite shy, but when they are playing with friends they communicate much more. More specifically, Santi speaks of a British friend that they play with. Through communication with this specific friend, they can practice their spoken English and improve their vocabulary overall.

Furthermore, the results of this sub-category show that most of the participants experience the phenomenon of *complete in-game objectives* compared to *learn the language*.

Complete in-game objectives

This sub-category refers to the phenomenon of communicating with other players during gameplay with the purpose of completing the goals set within the game. A total of 5 participants, Ekkapekka, Ben, Scrappy, Nibu, and Jacob reported experiencing this phenomenon. Ben and Scrappy state that:

“I like to communicate. The motivation comes from, if it's a competitive game, I want to win the game. So if it requires communication with the team, I'll do it. But in other sense, I don't really like communicate with others in gaming.”

“the more important thing when I want to communicate is that it’s a usually when I’m playing a team-based game and you have to do cooperation to win, and then I communicate because of that.”

Furthermore, Ben, along with Ekkapekka and Nibu, cite that there is a difference in motivation to communicate depending on the multiplayer game-mode they are playing:

“Well, the mode itself, if it’s like I said, competitive, I usually tried to communicate more, because that may be required to win the game”

“Because in casual, everyone kind of practices to, not do those more team-based skills. But in Ranked those aspects of the game...in ranked, the team members communicate with each other much more because they want to be in that ‘state in which they mediate.’”

“When I play, like shooter, Rainbow 6 Siege, Counter Strike it’s [communication] needed. So I have to, you know, communicate.”

Within the responses of Ben, Ekkapekka and Nibu, they refer to unranked and ranked multiplayer online game modes. Ranked game modes record the wins and losses of every individual player of the game and place them on an online leaderboard, or a hierarchical list. The placement on this online leaderboard is dependent on an individual’s number of wins and losses. Everyone who participates in ranked game modes can move up the leaderboard with every win and can move down with every loss. Unranked game modes do not affect an individual’s placement on the online leaderboard.

For Ben, the motivation to communicate comes from the interest in completing the in-game objectives. They state that online team play is the only place where they use their voice to communicate. To work effectively as a team, communication is needed. Otherwise, they do not communicate at all.

For Ekkapekka, similar to Ben, their motivation to communicate is to win over their opponents. More specifically, they cite the need to multi-task within the game they play, Overwatch. They express the need to use voice chat since there are many things going on within gameplay. Multi-tasking is a predominant task that they must undertake. Therefore, there is not much time to type out communication, and thus they speak in English to their teammates. Furthermore, they also stated that they speak in English since it is the universal language that is used in online video games. They believe this even though they play online video games in Europe, a region with a high diversity of languages that are spoken.

In regard to Jacob, they also state that their motivation to communicate is to coordinate with their team effectively. In the game that Jacob plays, Runescape, there are game modes where a team must complete an objective. Otherwise, they report there is no need to communicate with others within the game.

For Scrappy, they also communicate with others to communicate with their team effectively. They go more into depth about the dynamics of online team play when they play Counter-Strike: Global Offensive (CSGO). They state that each person on the team has an individual task to do to defeat the other team. Each person must communicate in order to coordinate and accomplish each of their goals. Lastly, they speak about how they like to communicate with the other team:

“It's, nice to have a conversation, conversations with all the players in the game they might have something interesting or funny to tell. And you might want to respond to them and just conversate with them. Or the more important thing when I want to communicate is that it's a usually it's a, it's when I'm playing a team based game and you have to do cooperation to win, and then I communicate because of that.”

For Nibu, they want to communicate well with their team to complete in-game objectives and defeat their opponents. Much like Ekkapekka, they state that in the games they play, Rainbow 6 Siege and CSGO, there is no time to type out their communication, so they use voice chat.

Generally, the results of this sub-category show that most participants prefer to communicate to achieve the in-game goals. Furthermore, there seemed to be a distinction between the usage of text and voice chat depending on the game-mode as well. With ranked, typically voice chat would be used while in casual, text chat would be used.

“And in ranked, I use that voice chat, because I don't have time. And I think it's usually in ranked, I think it's better use voice chat. Because you don't overall have time to type in commands or stuff in chat.”

For Scrappy, they use voice that for ranked because they see the ranked game mode as place where team skills are imperative. Meanwhile, unranked game modes are perceived as a place to improve on individual skills, therefore there is no need to communicate with other players.

Ekkapekka has a similar experience to Scrappy where they see unranked and ranked modes having different reasons to communicate. Ranked game modes require communication to defeat the enemy team, while unranked game modes, there is less of a motivation to perform well individually or as a:

“So, like I said earlier, I talk a lot more in voice chat on competitive because it's a lot easier to concentrate on the game while talking at the same time. Because time is more scarce and more valuable. However, in casual, you can take your time with talking voice chat or doing whatever you want. Plus, casual is more relaxed, in my opinion. Don't really have to make every move perfectly. You can slack off, you can make mistakes.”

6.1.3 Experience learning English

The experience learning English refers how the participants have experienced learning English. This has the sub-categories of *learning from others* and *learning from the game itself*. The results show that there are 39 total references to experience learning English with all 6 participants reporting that they *learn from the game itself* and only 2 participants reporting that they *learn from others* who play the game. Of the 39 total references, 6 of them reference *learning from others* and 33 reference *learning from the game itself*.

Table 3

Experience learning English

Experience learning English	Coded References
Learning from others	9
Learning from the game itself	33
Total	42

Learning from the game itself

This sub-category is defined as learning English directly from the video game. This means learning English from features of the game, separate from interactions with other players within the game. These features can include in-game dialogue, menus, or voice lines. All six participants stated that they experience learning English from some aspect of the video game:

“When they talk to each other, like through dialogue, I learned what it means pretty quickly. It's really a subconscious thing when I think about it myself because I really don't think that

I'm learning English but I still learn it subconsciously and understand then or later what the text means. The easiest way is to learn it in context, like if they're talking about something, and it usually if it's the game characters, it usually refers to something in the game that I may already understand. It kinda fills out on itself that I know already."

"About the interface, I'd say, you can actually examine items in the game. I do that a lot. For example, I've had have some sort of an item in my inventory. I can examine it and it says test what the item is, it describes it in the chat. So I I'd say that taught me a lot as well."

"They might, like, teach me some simple words, or like, verbs or commands. When you do some commands in some games. Like, for example, Minecraft you learn some words in there. So I guess I learned some words through that."

"I would say I have learned some, English words to those dialogues. You have in, a single player in Battlefield or Call of Duty."

"I think that it teaches me English quite much, actually, much more than the players in the game. But because, like the game, if it's well designed, it can, you can figure out which word means which things, and whatnot."

In the case of Jacob and their experience playing the MMORPG Runescape, they learned much of their English through in-game objectives that are assigned to a player. There are a lot of in-game objectives, or quests, that are given to the player through dialogue with non-player characters (NPCs). Most of the English they learned was through the game dialogue their character has with NPCs. An example of this is when they make a choice within the game. They would be given three options to choose within the dialogue. Depending on the context of the situation, Jacob could figure out what the dialogue means. Furthermore, the dialogue between the player character and NPCs is in text form. Therefore, their English reading and comprehension skill improved significantly because of playing Runescape.

For Nibu, in their experience of playing the MMORPG Black Desert Online, they learned much of their English through interactions with NPCs as well. They also learn, through playing with other players, how to pronounce words in a specific way. Furthermore, as mentioned earlier, they started playing games when they were young at the age of nine. Lastly, in the game Minecraft, Nibu reported learning words from the interactions with the game environment. When they would pick up items in-

game, they could see what the word is and associate it visually with the item. For example, the word wood was learned from chopping down trees and picking up logs.

For Santi, in their experience playing the shooter game Call of Duty: WW II, they learned both from game dialogue and from texts. The game dialogue they refer to is the spoken dialogue that occurs between NPCs in the single player modes. In single-player mode, which does not occur online with other players, they listen to the NPCs talk to each other during scenes. In regard to the two kinds of texts that they are referring to, they are loading screens and the user-interface. These loading screens appear before and after an online multiplayer match begins. They can also occur when switching to different game modes such as ranked or unranked. Within these loading screens are facts about World War II. The other kind of texts they are referring to are from the user-interface. These are words that appear when navigating the different menus before online gameplay, and during online gameplay. They specifically cite the descriptions of the different in-game weapons they can choose from as a source of much text they read in the user-interface. Through both avenues English vocabulary is learned and improved upon.

In regard to Ben, in their experience of playing the MMORPG Black Desert Online, they learned much of the English through interactions with NPCs much like Nibu. More specifically, they cited learning what words are in dialogue through the context of the conversation. They also state that seeing the same words commonly helps in learning what they are. Lastly, they learned from the menus and user-interface of the game.

In the case of Ekkapekka, they, much like Nibu, started playing video games at a young age. In the first game that they played, Minecraft, they changed the language settings from Finnish to English. This led to a large amount of exposure to English words they were able to learn. Furthermore, they also learned much vocabulary from the user-interface and menus. Lastly, through playing Overwatch, they learned from how the in-game character voice lines. During online gameplay, the characters that the players control say various voice lines in English, depending on the setting of the game. Ekkapekka specifically states how they learned how the different English pronouns worked:

“Yeah, hearing video game characters, talk. You kind of notice that pattern like you say, when you start a sentence, you usually start with ‘I, you, he she, they them.’ But you know, you realize how the main how simple sentences are built up. You have the subject, verb, and object. I don't know if that's the terminology in English, but that's how we say it in Swedish.”

The results of this sub-category show that all the participants have experienced learning from features of the video game, though each participant's experiences are unique in of themselves. It also reveals that there are different aspects of the video game that can teach English regardless of which video game the participant plays.

Learning from others

Learning from others refers to learning English from other players during gameplay. Four participants, Santi, Scrappy, Ekkapekka and Ben, experienced *learning from others*. They state that:

“Me understanding English, a part big part from it came from video games, especially online games. Because you actually hear people speaking the language itself it's not a pre-written and repeating No, it's every time it's something unique they're saying.”

The way that Santi experiences *learning from others* is, as mentioned before, through playing with their English-speaking British friend. Santi is kind of shy when it comes to communicating with strangers online. However, when they are playing with their friends, they communicate more since they are more comfortable. Through playing with their English-speaking friend, they are able to practice their English and have someone to learn from.

For Scrappy, Ben, and Ekkapekka they learn different kinds of vocabulary compared to what is learned from the game. They speak of learning from other players speaking during online gameplay and, more specifically, learning unique words from them. They also learn how to phrase their words.

The results of this sub-category show that some participants learn from others, but the majority of them learn from the game itself.

6.2 How do video game players experience the process of IDLE through the affinity spaces affiliated with online multiplayer video games?

The second research question was focused on IDLE that occurred through online affinity spaces affiliated with online multiplayer video games. These spaces include Reddit, YouTube, Twitch, Twitter and Discord. After using a data-driven approach to creating categories, according Schreier (2014), the following categories were found: motivations to interact with others, and experience learning English. Within the category motivations to interact there are two sub-categories that are named *to learn English* and *improve gaming knowledge*. Within experience learning English, there are three sub-categories: *learning from others*, *learning from the space itself*, and *learning from the content*.

6.2.1 Motivations to interact

The motivations to interact refers to the reasons why participants would participate in the online affinity spaces. There was a total of 13 coded references to this category with 1 participant referring to the sub-category *to learn English* and 5 participants responding to *improve gaming knowledge*.

Table 1

Motivations to Interact

Motivations to interact	Coded References
To learn English	2
Improve gaming knowledge	11
Total	13

To learn English

This sub-category is defined as a motivation to acquire English skills being the reason to interact in online affinity spaces. The 1 participant, Santi, who reported having this motivation stated that:

“Maybe wanting to learn more English and reading interesting posts.”

“Improving my communication skills is motivating me and learning more English becoming a better speaker.”

For Santi, his motivation is to both learn how to communicate in English and to understand more English. They believe that the more English they learn, the more content they can understand and enjoy, and they are able to interact with more people online.

The results of this sub-category reveal that most participants have other motivations to interact in online affinity spaces. Nonetheless, this also shows that participants can actively and consciously use informal spaces to learn language.

Improve gaming knowledge

This sub-category refers to the motivation to increase gaming knowledge. This knowledge includes tips for improving in-game player performance, they have an in-game problem they need help solving, and game development. Five participants reported having this motivation to interact in online affinity spaces. They stated that:

“The main reason I communicate, ask people or that it's usually because of video games. I need help or want to solve a problem, then the video games causes that I want to communicate online with people.”

“When I get out like a problem in the game, I usually Google it. If somebody hasn't asked it yet, I will ask it on Reddit.”

“In YouTube, I like to watch like, some gaming videos. This one YouTuber does funny clips from games. And in Reddit, I like to browse gaming channels or channels related to games and maybe find tips or, tips or tricks to do in game and in Twitter. I mostly follow people that post gaming videos.”

“I think I just want to expand my knowledge in the topics [games] I follow. And kind of keep, how do I say this? Keep up with the news.”

For Ben and Jacob, the affinity spaces they often participate in are on Reddit and YouTube. The reason why they communicate is to find help for problems they have in game. If they have, they need helping solving, they confer with others in the community to help them. Furthermore, the interest in video games also motivates them to communicate with others in the community. They enjoy discussing topics related to the game.

For Santi, they also interact in online spaces to improve their game knowledge. They participate mostly on Reddit and YouTube. They have an interest in finding easter eggs in the games they play. An easter egg is a hidden feature or image in a video game that references something. These references are often of other games or pop culture. They also enjoy watching tips and tricks videos on YouTube. These kinds of videos help them improve their performance in online gameplay. Lastly, they keep up with the news that occurs within the gaming industry.

Similar to Santi, Nibu's motivation to interact is to improve upon their in-game skills. They enjoy watching tips and tricks videos on YouTube. They state that people who dedicate a lot of their time creating content for a specific game, they find they are the most knowledgeable. Therefore, YouTube is their preferred affinity space to improve their performance in-game.

Scrappy’s experiences occurs on Reddit and YouTube. Their motivation to interact is mostly to keep up with new developments within the game industry. For example, is learning about a new game coming out or new updates to existing games that Scrappy currently plays.

One of the participants, Ekkapekka, stated that the reason they interact in online spaces is to help others increase their gaming knowledge. They specifically like to help others expand their knowledge within the game. Unlike others, they have set up a space on discord to help others learn how to play the game. This is different in that unlike the other participants, they are the ones that other community members seek out for guidance and support.

“Well, I have been a part of discord server. As usually I'm the one who suggests games. And they're like, ‘Oh, I don't know how to play this game. Please help me.’ And I'm like ‘Okay, so I can help you just launch the game and we'll play together.’ And I'll tell ‘Okay, press WASD to move.’ And but then, of course, I'm going to more in depth like, ‘oh, if you break this wooden plank. Now, if you break this wood log and put into your crafting table, you get wooden planks.’ And we put on planks, you can make crafting tape, you know, I give them the basics of the game.”

The results of this sub-category are that most of the participants have the motivation to improve their gaming knowledge or in one instance, help others improve their knowledge. This knowledge comes in the form of ‘tips or tricks’ or in-game problems that need solving.

6.2.2 Experience learning English

This category refers to how the participants experience learning English. In this category, it has the three sub-categories *learning from others*, and *learning from the content*. It has a total of 21 coded references with 4 participants reporting they learn from others, 1 participant reporting that they learn from the space itself, and all 6 reporting that they learn from others in the space. *Learning from others* received 7 references and *learning from the content* received 13 references.

Table 2

Experience Learning English

Motivations to interact	Coded References
Learning from others	7

Learning from the content	13
Total	20

Learning from others

This sub-category refers to learning from other participants of the online affinity space. This means that the participant learned from interacting with others within the online affinity space. All 6 participants reported learning from other participants stating that:

“Well, they're limited, English interactions that I have had online. That includes sometimes chatting with strangers. It has given me more of how natural dialogue is formed, like, how do you be nice to someone. In Finnish, we're very straightforward and we don't have small talk. So that is a thing that I've learned from using online communities and chatting with people.”

“Well, community online helps me practice English by speaking it. Like the best way to learn a language is to utilize it. For me, I online, when I communicate, I text a lot. I usually type a lot in English, because it's faster. As I told you, everyone speaks English but when you have to write the same words over and over again, it gets engraved to your head.”

“If someone who uses, more advanced English, I just might, learn from it. From new things, words. Word of choice, like I said, same, dialog thing. If I come by to someone like you, who has, good English and stuff, so I can just, you know, learn from it, when talk and communicate with me.”

“I have learned some vocabulary and some English in those posts that I read.”

“I search it up on the internet and then I usually find a person who has asked the same question and someone else has responded to them. And I read that response and I know what it means. What a certain word means or a term.”

For Ben, interacting with others online has helped them learn how sentences are formed. They have learned this through interactions with people online, especially on Reddit. He cites having conversations in the comment sections of Reddit posts. He also states how he learned how to do small talk from people from Reddit as well.

For Ekkapekka, through interacting with other people in the community, in both their own Discord server, YouTube, and Reddit, they were able to become comfortable using the language. At first, they were scared of communicating with others online, but after many attempts of interaction, they have overcome their fear. They state that making mistakes is what scares them the most when communicating with others online. Lastly, they state that this interaction typically occurs through written communication.

For Jacob, they learned everyday spoken English that they can use. They describe it as practical vocabulary that they can use outside of gaming:

“Practical language, words I really need in my daily life, which of course I learned those words in English class as well, but words associated with gaming, I learned from those communities. I’d say at least I learned practical language that I need from those online spaces.”

For Nibu, they stated that they learned more advanced English when communicating with others online. They learned new kinds of words compared that aren’t typically used during online multiplayer gameplay. They state that when they come across a word when communicating with others online, they look the meaning of it up on Google. Then they try to use the new word in their everyday language.

For Santi, they learn much vocabulary from the posts that they read on Reddit. They state that compared to YouTube, they learn much more vocabulary from Reddit.

The results of this sub-category show that it is referenced less relative to the other sub-category *learning from the content*. It also shows that it is a phenomenon that occurs with all the participants, showing its prevalence in language learning in online affinity spaces.

Learning from the content

This sub-category refers to learning English the content that the participant of the affinity space engages. An example of this would be watching videos on YouTube. In-fact, the majority of the reported experiences of *learning from the content* is in reference to watching video game related YouTube videos:

“Well, I would say maybe that listening when I was younger, I learned how to pronounce English words better. If I watched an English Minecraft video, I learned how different words

were pronounced correctly and how they sound in English, so I can recognize them, maybe in another video.”

“Yeah, because back in the days, you couldn't really skip back easily on YouTube, so I would have to. I was like, it really helped me to understand because I've also a very invested in the content that we're creating. So I wanted to understand and I paid a lot of attention to the content. So that's one way I picked up the language by being focused while people were speaking it, listening into conversation, hearing, and seeing different words, and all of that.”

“I think 'cause there's not really like spoken dialogue in the game itself. Or, the characters don't like talk, the dialogue is in text. So when I watched videos, I think it helps me understand spoken English when you actually hear it?”

In the case of Ben, they talked about how they started interacting in online affinity spaces when they were younger. They would watch Minecraft videos in English on YouTube. They some vocabulary from these videos but mostly they learned how to pronounce words in English. In relation to playing online video games, they state that they learned most of their vocabulary from playing online video games while learning how words are pronounced from YouTube videos.

For Ekkapekka, they also reported that they were interacting in online affinity spaces at a young age. Specifically, on YouTube, they said that they were very interested in the content they were watching. It was because of this interest that led them to consume much content from Minecraft videos on YouTube. Much like Ben, they believe that hearing English spoken in YouTube has helped them with their pronunciation and intonations their spoken English.

For Jaccob, they stated that since spoken dialogue is rare in Runescape, watching YouTube videos helped them learn how spoken English sounds like. Through watching YouTube videos, they too were able to improve their spoken English.

In regard to Santi, learned much of their vocabulary from YouTube. However, they learn mostly from interacting with others on Reddit. They interact mostly through reading the different online posts. They learn by reading the posts to themselves and sometimes outloud to their friends.

The result of this sub-category shows that most participants experience learning language from consuming the content available in online affinity spaces. This also shows that each participants' experience has similarities to each other, yet each have their own unique experiences.

7 Discussion & Limitations of Research

This study aimed to answer two research questions about how video game players experience the English learning processes that occur during IDLE activities. The results indicated that most video game players, when engaging in the IDLE activity of playing online multiplayer video games, learn English subconsciously (Ivanchei, 2014). They are also motivated to communicate with others during gameplay to complete in-game objectives and learn most of their English from in-game dialogue, menus, and character voice lines. Furthermore, the results indicated that most video game players when engaging in the IDLE activity of interacting in online affinity spaces are motivated to interact with others to improve their game knowledge. Lastly, most of English that is learned from online affinity spaces comes from the content that exists in the space.

Learning English without awareness while playing online video games

This study showed that most player's experience is that they are unaware of the learning that has occurred but can recall the knowledge they learned afterwards, though sometimes difficult to explain. This is in line with the implicit learning approach-controlled application of unconscious where unconscious learning has occurred however it is difficult for the learner to recall what has occurred (Ivanchei, 2014). What has been shown in past research is that the setting of video games has allowed learners to have lower anxiety levels (Horowitz, 2019). Furthermore, past research indicated a positive relationship between playing online video games and vocabulary acquisition (Sundqvist & Wikström, 2015; Sundqvist, 2019; Rudis and Poštić, 2017). In these studies, learning English through playing online video games were cited. However, none of these studies specifically mentioned the characteristic of learning English without awareness of it.

Learning English through communication with others in online video games

This study has presented the player's motivation to communicate with others within the game; it is to play to win and complete in-game objectives and not learn a new language. This is in line with the informal learning that is incidental where there is not intent to learn something new (Schugurensky, 2000). Furthermore, the results indicated that some participants were able learn unique words from other players that is different from the game itself. This is a similar finding compared to a study done by Jensen (2019), where children would play online games and join English speaking teams. In both instances, players would experience new words and phrases that went beyond what was available within the game (Jensen, 2019). This finding presented the potential for online video game team play to encourage players to learn more English vocabulary.

Learning English through the video game itself

The findings have shown that most players learn from features of the game itself such as voice lines, character dialogue and menus. This showed that most players learn from the informal learning environment itself compared to the other peers that exist within the environment. This is comparable to game transfer phenomena where players would incidentally start repeating slang, words, and mimicking game content without the players' knowledge (Ortiz de Gortari, 2016). Moreover, this finding is related to the vocabulary learning strategies that were reported by players while playing video games such as "reading in-game information/pop ups" and "noticing frequency/repetition of words" (Bytheway, 2015, p. 514). Other experiences within this study that relate to vocabulary learning strategies are learning from context and equating the image to the word (Bytheway, 2015).

Learning English in online affinity spaces

The results showed that most players' interaction in online affinity spaces was to improve their gaming knowledge and not to improve their English. Moreover, players learned most of their English from the content within these spaces ie YouTube videos or Reddit posts while some reported learning language from others. These results indicated that the English learning that occurs within online affinity spaces were incidental since there is not intent to learn English from the player (Schugurensky, 2000). Furthermore, the behavior of the players to seek new information online is similar to cognitive presence, one of the characteristics of CoI (Cooper & Scriven, 2017). They are comparable specifically to Dewey's four phases of inquiry: triggering event, exploration, integration, and resolution (Garrison, 2014 in Cooper & Scriven, 2017). In this context, language learning occurred through exposure of English within the phases of inquiry. Lastly, this study supported past research regarding language learning in online affinity spaces; much like the study on fandoms, language learning does occur in video game related online affinity spaces as well (Shafirova & Cassany, 2019; Vazquez-Calvo et al., 2019). However, in this study, the online affinity spaces were different, and the language learning occurred within Dewey's phases of inquiry (Garrison, 2014 in Cooper & Scriven, 2017). Nonetheless, much like the previous studies, some participants experienced language learning through interaction with others (Shafirova & Cassany, 2019; Vazquez-Calvo et al., 2019).

Overall, the way in which English is learned in these two IDLE activities can be understood as mostly incidental learning where there is no intent to learn English when engaging in these activities, but English learning occurs regardless. The player's experience of learning English while playing online video games can be explained as one that is incidental, that occurred within and mostly from the digital environment, and that players experienced it subconsciously, but it can be hard to verbalize or

explain (Schugurensky, 2000; Ivanchei, 2014; Bytheway, 2015). Some players experienced learning English through playing with others (Jensen, 2019). Past studies have shown that English vocabulary learning is occurring, but none have revealed precisely that players experienced language learning in video games unconsciously (Sundqvist & Wikström, 2015; Rudis and Poštić, 2017; Lee & Dressman 2018; Sundqvist, 2019; Lee 2019; Lee & Kilryoung Lee 2021). In regard to interacting in online affinity spaces, most participants learned incidentally through the process of inquiry, learning English along the way (Schugurensky, 2000; Garrison, 2014 in Cooper & Scriven, 2017).

Contributions of this study

The practical implications of this research show the potential for IDLE activities to improve English language proficiency among video game players. Within formal education settings, educators could use IDLE activities to promote English language improvement among their students, encouraging students to pursue IDLE activities outside of school. Furthermore, educators could use the CoI framework, more specifically the concept of Dewey's phases of inquiry, to encourage language learning among their students (Garrison, 2014 in Cooper & Scriven, 2017).

Limitations

In regard to limitations, the most significant limitation of the study is that the results cannot be generalized. During the process of creating and utilizing the coding frame, there was a lack of a second peer coder to compare to. Therefore, the data could not be double coded. Furthermore, the data was limited in scope. Due to the resources of the study, only 6 participants could be found. The participants also had a limited demographic because all of them were male. Therefore, would be beyond the scope of this study to show how other genders experience IDLE. Lastly, the results cannot be generalized to other IDLE activities such as watching media in English because this study focuses on only two.

8 Conclusion

This study answers the research questions of how player experience the process of IDLE within playing online multiplayer video games and interacting in online affinity spaces. While past research has focused on whether language learning was occurring or how language learning with video game players compare to non-gamers, this study contributes to IDLE research by exploring more precisely the process that occurs within playing multiplayer online video games and interacting in online affinity spaces (Sundqvist & Wikström, 2015; Rudis and Poštić, 2017; Lee & Dressman 2018; Sundqvist, 2019; Lee 2019; Lee & Kilryoung Lee 2021). It may be concluded that unconscious language learning may occur within online video games. Secondly, language learning may occur within online affinity spaces through while players experience the process of inquiry (Garrison, 2014 in Cooper & Scriven, 2017). Lastly, language learning through playing online video games and interacting in online spaces is incidental in nature.

Based on the conclusions made in this study, future researchers should consider how video game players experience English language learning in other IDLE activities such as watching television or movies in English. Secondly, they should explore how other genders experience English language learning in IDLE activities using a larger data set and more coders to ensure generalizability. Furthermore, researcher should further explore how unconscious language learning may occur in online video games. Lastly, researcher should investigate further into language learning in video game related online affinity spaces.

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Appendix 1: Interview Protocol

Phase 1 Warm Up Questions

Tell me your name and a little bit about yourself.

Why do you play video games?

Phase 2 Practice of English in Video Games

Interaction through game

How do you use English when playing online games?

Which in-game communication tool (ie emotes, text chat, live voice) is your primary form of communication? Why?

Interaction with game itself

How does the game interface (menus, in-game commands) teach you English?

How do the in-game characters and their dialogues teach you English?

Related to Motivation

What is your motivation for communicating in English in online games?

How does the online multiplayer mode (ie casual or ranked) affect your motivation to communicate English?

How does your interest in playing online games affect your motivation to learn English?

English Learning Experienced

How does your English used in playing online games reflect in your English used in real-life?

How much English do you learn from playing online games?

Phase 3 Practice of English in Online Game-Related Affinity Spaces

Interaction through Affinity Space

Which online community space (Twitch.tv, Youtube, reddit) is your preferred online space? Why?

In online gaming communities, how do you use your English skills in those spaces?

Interaction with Affinity Space Itself

How does the community space interface teach you English?

In what ways does communicating online enable you to practice and learn English?

Related to Motivation

What is your motivation for communicating in English in online spaces?

How does your motivation for playing video games affect your use of English in online gaming communities?

English Learning Experienced

In what ways do you learn English in online gaming communities?

How does your English used in online gaming communities reflect in your English used in real-life?

How much English do you learn through interacting with others in online gaming communities?

Phase 4 English Usage in Non-Gaming Contexts

In what ways has your hobby of gaming helped your English in your studies in school?

In what ways has your hobby of gaming helped your English in every-day life?

Phase 5 Wrap-up Questions

Are there any ways in which your hobby of gaming has helped you outside of learning English?

Are there any questions where you would like to expand your answer?

Do you have any questions for me?

Appendix 2: Consent Forms for Adults

Informed consent for participating in research

This informed consent form provides you as the participant general information about the research, its purpose, and your rights as a participant.

General information

My name is Mel Ico and I am a Master's student in the Learning, Education, and Technology program at the Faculty of Education, University of Oulu. As a part of my studies, I am conducting research in Language Learning in Online Multiplayer Video Games. The purpose of my research is to explore how language learners experience the process of language learning in online multiplayer video games and the online affinity spaces related with them.

Participants and Data Collection

Students, who are high school age or older and play online multiplayer video games, are invited to participate in this study. You will be asked to fill out a short questionnaire in English. It should take no longer than 30 minutes to fill out the questionnaire. Then you will participate in a 30-45 minute semi-structured interview also in English. Examples of the kind of questions I will ask are:

- In what ways do you learn English in playing online games?
- In what ways do you learn English in online gaming communities (ie reddit, twitch, youtube)?

The full list of the interview questions will be provided along with the consent form.

The only information I will collect will be through the short questionnaire and an audio recording of the semi-structured interview. The semi-structured interview will be conducted online through Zoom. During the interview, the use of video will be optional. Only the audio from that interview will be used as data. The audio will be recorded using the Zoom software. After recording the interview, the audio will be transcribed using the Nvivo program.

All information that is collected will be anonymized. You will be asked to come up with your own code-name or nickname to be used to identify your data. No personal details that enable identifying you will be included in the analyses, discussion and reporting of the data. I alone will have access to the data that has been collected from the participant. Systematic care in handling and storing the information will be ensured to avoid any kind of harm to you. The data will only be used after all the information leading to your identification has been removed. The data will only be used for the purposes of my research. The results of my research will be assessed by the Faculty of Education in the University of Oulu. The data will be destroyed after the thesis has been assessed and approved by the Faculty of Education.

The results of my research may be published in scientific journals, internet articles, conferences, or in the press or other media in the future.

Participant's Rights

You have the right to withdraw from the research at any time without any consequences. Your participation is completely voluntary. Information collected before your withdrawal will not be used. You have the right to get more information about the research by contacting me. My contact information is provided below.

Confirming informed consent

- I am willing to participate in the research.
- I allow the use of my written survey questions and audio recording for research purposes.
- I allow the information that I have provided to be used until the thesis has been assessed and approved by the Faculty of Education

Date ___ / ___ 20___

Participant's Signature (signature, Name in capital letters)

Researcher's Signature

Mel Ico

Mel.saltoc.ico@gmail.com

+3580449439140

This thesis research is supervised by:

PhD Muhterem Dindar, University of Oulu

PhD Angelica B. Ortiz de Gortari, University of Bergen

More information about research ethics and informed consent:

Finnish Board on Research Integrity

<http://www.tenk.fi/en/ethical-review-in-human-sciences>

Social Sciences Data Archive

<http://www.fsd.uta.fi/aineistonhallinta/en/informing-research-participants.html#partIV-examples-of-informing-research-participants>

<http://www.fsd.uta.fi/aineistonhallinta/en/anonymisation-and-identifiers.html>

Appendix 3: Consent Forms for Minors

Consent from Parent

Informed consent for participating in research

This informed consent form provides you as a parent of the participant and the participant general information about the research, its purpose, and you and your child's rights as a participant.

General information

My name is Mel Ico and I am a Master's student in the Learning, Education, and Technology program at the Faculty of Education, University of Oulu. As a part of my studies, I am conducting research in Language Learning in Online Multiplayer Video Games. The purpose of my research is to explore how language learners experience the process of language learning in online multiplayer video games and the online affinity spaces related with them.

Participants and Data Collection

Students, who are high school age or older and play online multiplayer video games, are invited to participate in this study. Participants will be asked to fill out a short questionnaire in English. It should no more than 30 minutes to fill out. Then they will participate in a 30-45 minute semi-structured interview also in English. Examples of the kind of questions I will ask are:

- In what ways do you learn English in playing online games?
- In what ways do you learn English in online gaming communities (ie reddit, twitch, youtube)?

The full list of the interview questions will be provided along with the consent form.

The only information I will collect will be through the short questionnaire and an audio recording of the semi-structured interview. The semi-structured interview will be conducted online through Zoom. During the interview, the use of video will be optional. Only the audio from that interview will be used as data. The audio will be recorded using the Zoom software. After recording the interview, the audio will be transcribed using the Nvivo program.

All information that is collected will be anonymized. Participants will be asked to come up with their own code-name or nickname to be used to identify the participant's data. No personal details that enable identifying you or your child will be included in the analyses, discussion and reporting of the data. I alone will have access to the data that has been collected from the participant. Systematic care in handling and storing the information will be ensured to avoid any kind of harm to you or your child. The data will only be used after all the information leading to identification of a person has been removed. The data will only be used for the purposes of my research. The results of my research will be assessed by the Faculty of Education in the University of Oulu. The data will be destroyed after the thesis has been assessed and approved by the Faculty of Education.

The results of my research may be published in scientific journals, internet articles, conferences, or in the press or other media in the future.

Parent's and Participant's Rights

Your child have the right to withdraw from the research at any time without any consequences. You yourself may also withdraw from the research at any time without consequence. Your child's participation is completely voluntary. Information collected before the participant's withdrawal will not be used. You and your child have the right to get more information about the research. My contact information is provided below.

Confirming informed consent

- I allow my child to participate in the research.
- I allow the use of my child's written survey questions and audio recording for research purposes.
- I allow the information that has been have provided to be used until the thesis has been assessed and approved by the Faculty of Education

Date ___ / ___ 20___

Parent's Signature and name (in capital letters)

Minor's Signature and name (in capital letters)

Researcher's Signature

Mel Ico

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This thesis research is supervised by:

PhD Muhterem Dindar, University of Oulu

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More information about research ethics and informed consent:

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<http://www.fsd.uta.fi/aineistonhallinta/en/anonymisation-and-identifiers.html>

Consent from school principle

Informed consent for participating in research

This informed consent form provides you as a school principal of the participant and the participant general information about the research, its purpose, and you and your student's rights as a participant.

General information

My name is Mel Ico and I am a Master's student in the Learning, Education, and Technology program at the Faculty of Education, University of Oulu. As a part of my studies, I am conducting research in Language Learning in Online Multiplayer Video Games. The purpose of my research is to explore how language learners experience the process of language learning in online multiplayer video games and the online affinity spaces related with them.

Participants and Data Collection

Students, who are high school age or older and play online multiplayer video games, are invited to participate in this study. Participants will be asked to fill out a short questionnaire in English. It should no more than 30 minutes to fill out. Then they will participate in a 30-45 minute semi-structured interview also in English. Examples of the kind of questions I will ask are:

- In what ways do you learn English in playing online games?
- In what ways do you learn English in online gaming communities (ie reddit, twitch, youtube)?

The full list of the interview questions will be provided along with the consent form.

The only information I will collect will be through the short questionnaire and an audio recording of the semi-structured interview. The semi-structured interview will be conducted online through Zoom. During the interview, the use of video will be optional. Only the audio from that interview will be used as data. The audio will be recorded using the Zoom software. After recording the interview, the audio will be transcribed using the Nvivo program.

All information that is collected will be anonymized. Participants will be asked to come up with their own code-name or nickname to be used to identify the participant's data. No personal details that enable identifying you or your student will be included in the analyses, discussion and reporting of the data. I alone will have access to the data that has been collected from the participant. Systematic care in handling and storing the information will be ensured to avoid any kind of harm to you or your student. The data will only be used after all the information leading to identification of a person has been removed. The data will only be used for the purposes of my research. The results of my research will be assessed by the Faculty of Education in the University of Oulu. The data will be destroyed after the thesis has been assessed and approved by the Faculty of Education.

The results of my research may be published in scientific journals, internet articles, conferences, or in the press or other media in the future.

Parent's and Participant's Rights

Your student has the right to withdraw from the research at any time without any consequences. You yourself may also withdraw from the research at any time without consequence. Your student's participation is completely voluntary. Information collected before the participant's withdrawal will not be used. You and your student have the right to get more information about the research. My contact information is provided below.

Confirming informed consent

- I allow my student to participate in the research.
- I allow the use of my student's written survey questions and audio recording for research purposes.
- I allow the information that has been provided to be used until the thesis has been assessed and approved by the Faculty of Education

Date ___ / ___ 20___

School Principal's Signature and name (in capital letters)

Minor's Signature and name (in capital letters)

Researcher's Signature

Mel Ico

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This thesis research is supervised by:

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