



**THE EFFECTS OF A VIRTUAL WORLD ON THE WILLINGNESS
TO COMMUNICATE, MOTIVATION, AND ANXIETY OF THE
STUDENT TEACHERS OF ENGLISH**



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**SANAL BİR DÜNYANIN İNGİLİZCE ÖĞRETMEN ADAYLARININ
İLETİŞİM KURMA İSTEKLERİ, MOTİVASYONLARI, VE
KAYGILARI ÜZERİNDEKİ ETKİLERİ
(DOKTORA TEZİ)**

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ÖZ

Günümüzde internetin kullanımı çoğunlukla kullanıcı tarafından oluşturulan içerik ve sosyal ağlar tarafından şekillendirilmektedir. Üç boyutlu sanal dünyalar, içeriği kullanıcılar tarafından oluşturulan, çok kullanıcı ve çevrimiçi ortamlardan bazılarıdır. Bu çalışmanın amacı, İngilizce öğretmen adaylarının İngilizce iletişim kurma istekleri, motivasyon ve iletişim kaygıları üzerine sanal bir dünya kullanmanın potansiyel etkilerini araştırmaktır. Karışık araştırma deseni olan bu çalışma, birer kontrol ve deney grupları ile ön test-son test deney araştırmasını içermektedir. Araştırmaya İngiliz Dili Eğitiminde eğitim gören 65 birinci sınıf öğretmen adayı (kontrol grubunda 35, deney grubunda 30) katılmıştır. Nicel veriler, İletişim Kurmaya İsteklilik, Motivasyon ve İletişim Kaygısı üzerine anketler aracılığıyla toplanmıştır. Nitel veriler ise, introspektif görüşmeler, haftalık değerlendirme formları, gözlem, odak grup ve yarı yapılandırılmış bireysel görüşmeler yoluyla

toplanmıştır. On adet gerçek yaşam görevi hem kontrol hem de deney gruplarında yürütülmüştür. Kontrol grubundaki görevler, rol oynama ve drama şeklinde normal sınıfta yapılmış, deney grubundakiler ise bu görevleri sanal bir dünya olan Second Life ortamında gerçekleştirmişlerdir. On adet görevin sonunda, anketler her iki gruba post-test olarak tekrar uygulanmıştır. Uygulama sonrasında, iletişim kurma istekliliği, motivasyon ve iletişim kaygısı değişikliklerini daha ayrıntılı anlayabilmek için katılımcılarla yarı yapılandırılmış görüşmeler yapılmıştır. Veri analizinde, verinin nicel kısmı için, Kovaryans analizi uygulanmış ve sonuçlar iletişim kurmaya isteklilikte belirgin bir artış ve iletişim kurmaya yönelik kaygı düzeylerinde belirgin bir düşüş olduğunu ortaya koymuştur. İki grup karşılaştırıldığında motivasyon açısından istatistiksel olarak anlamlı fark bulunamamıştır. Formlar, görüşmeler ve gözlem formları yoluyla toplanan veriler, bu çalışmaya katılan öğretmen adaylarının çoğunluğunun sanal dünyadaki görevleri yerine getirirken iletişim kurma konusunda daha fazla istekli olduklarını göstermiştir. Sanal dünya kullanmanın bir sonucu olarak, katılımcılar İngilizce iletişim kurmakta daha istekli, iletişim kurmak için daha fazla motivasyonlu hissetmişler ve iletişim konusunda daha az kaygı hissettikleri bulunmuştur. Sonuç olarak, bu çalışmadan elde edilen önemli bulgulardan biri, sanal dünyada gerçek hayattaki görevlerin yerine getirilmesinin öğretmen adaylarının iletişim kurmaya isteklerini, motivasyonlarını ve iletişim kaygısını olumlu şekilde etkilemesidir. Ayrıca, araştırma, geleneksel sınıflarda ve çok kullanıcı sanal bir ortam olan SL'de iletişim kurma eyleminin doğasını açıklayan bir modele ulaşmıştır. İki boyutlu olan modelden NATURAL (Doğal ortam, Çekici ortam, Zamansız çevre, Risk alma, Özgürleştirici) boyutu, SL'deki iletişimin niteliğini açıklarken, MATURAL (Yapay Konuşma, Kaygı, Zamanla ilgili konular, Çekici olmayan ortam, Kısıtlanmış risk alma, Yapay çevre, ve Sınırlar) boyutu yabancı dil sınıflarındaki gerçek hayat görevleri gerçekleştirmek için ne gibi dezavantajlar barındırdığını ortaya koymuştur. Başka bir deyişle, sınıf açısından bakıldığında, bu analiz MATURAL adlı bir boyut kapsamında tartışılmaktadır. SL'nin sağladığı avantajlar göz önüne alındığında NATURAL isimli boyut ortaya çıkmıştır. MATURAL modeli ayrıca, öğretmen adaylarının normal sınıflarda iletişim kurmaktan kaçınma nedenlerini açıklamaktadır. Bu da iletişim kurmaya fırsat bulmak ile iletişim kurmaya isteklilik konularını daha iyi anlamayı sağlamaktadır. Bu bulgular, öğretmen yetiştiricileri tarafından sanal dünya entegrasyonu olasılığını artıracak bilgiler sağlayabileceğinden, dil öğretmenliği eğitim programları için güçlü çıkarımlar ortaya koymaktadır. Ayrıca bu sonuçlar, öğretmen eğitimi programlarının konuşma derslerinde yüz yüze derslere ek olarak sanal dünyaların kullanabileceğini göstermektedir.

Anahtar Kelimeler: Sanal Dünyalar, Second Life, Görev Temelli Öğrenme, İletişim Kurmaya İsteklilik, Motivasyon, Kaygı

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ABSTRACT

Today, the use of Internet is mainly shaped by the user-created-content and social networking. 3D virtual worlds are some of these user-created, multi-user and online environments. The purpose of this study is to investigate the potential effects of using a virtual world on the willingness to communicate (WTC), motivation and communication anxiety of the students teachers of English. This study, which has a mixed method research design, comprised the pre-test-post-test experimental research with a control group. Sixty-five student teachers (35 in the control group, 30 in the experimental group) took part in the study. The quantitative data were gathered through the questionnaires on WTC, Motivation, and Communication Anxiety. The qualitative data, on the other hand, were collected through introspective interviews, weekly evaluation forms, observation, focus-group and semi-structured individual interviews. Ten real-life tasks were conducted both in the control and experimental groups. Tasks in the control group were conducted face-to-face as role-plays and drama, while those in the experimental group were conducted in the

virtual world of Second Life. By the end of the ten tasks, the questionnaires were administered to both groups as post-tests. After the administration of the questionnaires, semi-structured interviews were carried out with the student teachers to get a more detailed description of the changes in their WTC, motivation, and communication anxiety. For the quantitative part of the study, descriptive statistics and ANCOVA were computed. The results of the analyses revealed a significant increase in WTC and a significant decrease in communication anxiety levels. When the two groups are compared, the results revealed no statistically significant difference regarding motivation. The data gathered through the weekly evaluation forms, interviews and observation forms showed that the majority of student teachers who participated in this study produced a greater affect and willingness to communicate in conducting tasks in the virtual world. As a result of using the VW, the participants were more willing to communicate in English, experienced more motivation to communicate and less anxious about communication. One of the important findings from this study was that conducting real-life tasks in a virtual world affects pre-service teachers' WTC, motivation, and communication anxiety positively. Furthermore, the study suggests a model that explains the nature of communication in traditional classrooms and in a virtual world. While the NATURAL (Natural environment, Attractive, Time-free environment, Risk-taking, Liberating) dimension of the model explains the nature of communication in SL, the MATURAL (Mannered Speech, Anxiety, Time-related Issues, Unattractive, Restricted Risk-taking, Artificial Environment, and Limits) dimension highlights the shortcomings of the classroom for real-life tasks in EFL classrooms. From the classroom perspective, this analysis is discussed under the MATURAL dimension. When the advantages of the SL are considered the NATURAL dimension emerges. The MATURAL dimension also helps a deeper understanding of “having a chance to communicate” and “willingness to communicate” issues as well as “avoidance of communication” in regular classrooms. These findings have strong implications for language teacher education programs since they can provide insights that can increase the likelihood of virtual world integration by teacher trainers. Moreover, these results suggest that besides face-to-face classes virtual worlds can be used in speaking classes of teacher education programs.

Key Words: Virtual Worlds, Second Life, Task-based Language Learning, Willingness to Communicate, Motivation, Anxiety

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LIST OF ABBREVIATIONS

CLT	Communicative Language Teaching
EFL	English as a Foreign Language
ELT	English Language Teaching
ESL	English as a Second Language
FLA	Foreign Language Anxiety
L2	Second Language
MUVE	Multi-User Virtual Environments
SCT	Socio-cultural Theory
SL	Second Life
STs	Student Teachers
TL	Target Language
VW	Virtual World
WTC	Willingness to Communicate

CHAPTER I

INTRODUCTION

1.1 Background to the Study

Today, people are living in the internet era. In recent years, time spent on the internet has increased every day. As such, it cannot be denied that new developments in technology have always influenced pedagogy. These developments in technology require adapting language teaching pedagogy as well. Hence, contemporary language teaching pedagogy attaches great importance to effective use of technology in language learning settings. Researchers, teacher trainers, and teachers are trying to integrate computers and the internet into the language classrooms. As a result, today there are many differences between a traditional classroom and a classroom that is supported by technology. Similarly, English as a foreign language (EFL) is no longer taught solely using materials that were available through traditional teaching methods. With the changing needs of language learners, new online technologies have been developed, such as electronic learning management systems, which extend learning and promote the use of the target language beyond the classroom. These web technologies also provide flexible learning environments that allow learners to communicate beyond the classroom.

There are five types of web applications. These are; Web 0.0, Web 1.0, Web 2.0, Web 3.0; Web 4.0, and Web 5.0. These applications refer to the developing Internet (Web 0.0), fixed web (Web 1.0), interactive web (Web 2.0), the semantically operated web (Web 3.0), portable / mobile web (Web 4.0), and connected and intelligent web (Web 5.0). Among

these web applications, Web 2.0 tools are the most common ones. The higher applications (Web 3.0 and above) are not very common in education. The most basic feature that distinguishes Web 2.0 from Web 1.0 is that Web 2.0 is not static but interactive so that users can share and write content. As they allow interaction, Web 2.0 tools have caught the attention of practitioners and researchers in recent years. By using these tools, instant messaging is done online or in real-time, either individually or in groups, among Internet users. Web 2.0 tools allow written, voice, and video messaging applications. Google Hangouts, Skype, and Viber are some examples of these applications. These applications are both free and easy to use. Tools like blogs, wikis, podcasts and virtual worlds emerged in this era as well. These tools allow user-created-content and social networking which are the fundamental elements that shape how and why people use the Internet today.

Among Web 2.0 tools, virtual worlds (henceforth VWs) have become very popular. VWs are becoming increasingly widespread and people are trying use these to meet their diverse needs. These developments have attracted the attention of researchers and institutions in the educational settings. A virtual world (henceforth VW) is a computer-simulated environment that mimics real or imaginary places. Wagner and Ip (2009, p. 250) define VWs as “immersive, three-dimensional (3D), multimedia, multi-person simulation environments, where each participant adopts an alter ego and interacts with the world in real time.” These worlds are open-ended, interactive, and social places where communication takes place in real time (Bartle, 2004). Some popular VWs are Active Worlds, Kaneva, and Second Life. Second Life (henceforth SL) is the most popular and the mostly studied one.

SL was founded in 2003 by Linden Lab company, and today it has millions of users from all around the world. SL allows many online users to interact easily (Salt, Atkins, & Blackall, 2008). SL offers its users an environment similar to the real world. In SL, users can create objects like houses, shops, university campuses, museums, instruments, and even whole cities. Users can participate in a dance show, organize a concert, conduct educational activities with a large community, visit a museum, or trade with other people from their own store. Virtual environments possess a great potential to allow EFL learners to practice the target language as well. SL is one example of a virtual environment that has been used to facilitate language learning, and it is one of the most convenient platforms for

training because it provides a 3D environment and avatars as representative of users (Bell, 2009).

Virtual worlds offer a great potential for language education as they allow users to practice the target language. The number of studies integrating VWs to language education have increased recently because of the importance of this fact. Research has shown that virtual environments provide visual and linguistic support for language learners and facilitate language teaching and learning (Chen, 2016; Dede, Clarke, Ketelhut, Nelson & Bowman, 2005; Jarmon, Traphagan, Mayrath & Trivedi, 2009). These tools are necessary as recent technological developments have altered the nature of interaction: now people interact electronically as well as through spoken communication (Chapelle, 2001). Some earlier research has proved that VWs have positive effects on L2 learning (Kern, 1995; Pfeil, Ang, & Zaphiris, 2009; Wang, Song, Ston, & Yan, 2009), learner perceptions, attitudes, motivations (Balçıkanlı, 2012; Blasing, 2010; Liou, 2012; Shih & Yang, 2008; Wang et al., 2009; Wehner, Downey, & Gump, 2011), communication anxiety and shyness (Pfeil et al., 2009), interaction patterns (Deutschmann, Panichi, & Molka-Danielse, 2009; Jauregi et al., 2011; Shih & Yang, 2008; Zheng, 2009), communication strategies (Jauregi & Canto, de-Graaf, Koenraad, & Moonen, 2011), effects on learning (Blasing, 2010; Wang et al., 2009; Zheng, Young, Brewer, & Wagner, 2009), and output, motivation and risk-taking (Kern, 1995).

There are many affective factors that influence learning to speak a foreign language. Three of these factors are WTC, motivation, and communication anxiety. A significant body of research has been conducted exploring how these factors play significant roles in the language learning process (e.g., Chen & Lee, 2011; Cook, 2001; Dulay & Burt, 1977; Dörnyei, 2006; Krashen, 1985; MacIntyre, Clément, Dörnyei, & Noels, 1998). These studies attempted to explain the role of affective factors in second/foreign language learning. The research findings showed that WTC, motivation, and communication anxiety do not remain stable over time, across communication situations and types of receivers. It has been noted that high motivation and low anxiety help foreign language learners to experience more successful language learning (Dulay & Burt, 1977).

Studies of L2 communication have observed that there are some individual and situational variables that influence speakers' tendencies to initiate or engage in L2 communication (MacIntyre et al., 1998). That is why WTC in the L2 was conceptualized both as a trait and

a state level which may show differences in different situations. Taking this into consideration, MacIntyre et al. (1998) defined WTC as ‘a readiness to enter into the discourse at a particular time with a specific person or persons, using an L2’ (p. 547). In the literature, several WTC model studies have been conducted in second/foreign languages. The model studies are significant to understand the individual and situational variables discussed above. These studies demonstrated that motivation and L2 anxiety had a significant impact on L2 WTC.

According to Dembo (2000), there are certain factors that give energy and direction to the behaviors of learners, such as their goals, beliefs, perceptions, and expectations. It is impossible to deny that motivation is at the heart of the foreign language process for learners because learning a foreign language is different from learning other subjects (Dörnyei, 2001). Hence, a significant body of research has been conducted to investigate the role of motivation in language learning. Motivation and successful language learning positively affect each other. In other words, when the motivation is high the learning is better (Cook, 2001). Motivation is a key factor that influences the rate and success of L2 learning as well as a driving force to initiate and sustain learning when situations become difficult (Baker & MacIntyre, 2000).

Anxiety is another factor that affects students' achievement in language learning. Language anxiety is defined as “the apprehension experienced when a situation requires the use of L2 with which the individual is not fully proficient” (Gardner & MacIntyre, 1993, p.5). Research findings also show that learning a second language cause anxiety in language learners (Pichette, 2009; Young, 1991). A great number of research studies have been conducted to investigate the relationship between anxiety and language learning (e.g., Chen & Lee, 2011; Horwitz, Horwitz, & Cope, 1986; Woodrow, 2006). The findings of these studies mainly show that anxiety negatively affects language performance of EFL learners (Aydın, 2013; Batumlu & Erden, 2007). Aydın (2013) asserts that Turkish EFL learners have problems in productive skills such speaking and writing. They generally avoid using productive skills rather than pushing the boundaries. Therefore, anxiety decreases performance and negatively affects communication.

Many countries have updated their language education policies to bring them in line with the above-mentioned technological considerations and with the tenets of Communicative Language Teaching (CLT). One major policy change has been observed in the aim to

improve English teaching to help learners achieve communicative language abilities. This is because Long's (1996) interactive hypothesis and Swain's (2000) output hypothesis reveal the importance of the active use of the second language. When the major aims of communicative approaches are considered, developing the communicative competence of language learners is the first goal (Richards & Rodgers, 2014). Experiential learning activities, which are not easy to apply in a classroom environment, can easily be conducted in a virtual environment. One of the best ways of applying CLT and experiential learning is Task-Based Language Teaching (TBLT). Moreover, given the negative effects of communication anxiety on language learners, it is crucial that language learners receive instruction that lowers anxiety levels. CLT (Ellis, 2003; Long, 1996), and TBLT (Brown, 2007; Ellis, 2003) are two ways that have been effective in lowering anxiety.

Recently, TBLT has been considered a stronger version of CLT (Ellis, 2003). It is defined as the language teaching that is entirely based on utilizing tasks that are conducted by learners (Ellis, 2003). Willis (1996) defines TBLT activities as specific tasks to accomplish using the target language by language learners. A task might be checking-in at an airport or ordering a meal at a restaurant. Role-playing and simulations are the two commonly used TBLT approaches to conduct these tasks. In role-playing, members are assigned to groups with specific roles and objectives to accomplish. (Brown, 2007). Today, the characteristics of TBLT (role-playing and simulations) can be easily supported by using VW technology.

The changes in language education policies also affect the language teacher education policies as well. Preparing student teachers (henceforth STs) to teach in virtual environments is crucial as the teachers of the 21st century will be the teachers of digital natives. Although there is an extensive body of research that reveals the effectiveness of VWs on some of the affective factors (e.g., anxiety, motivation) in language learning (Chen, 2016; Wehner, Gump, & Downey, 2011), task-based instruction (Kamali, 2012); WTC has not been investigated in these environments.

1.2 Statement of the Problem

One of the most common problems faced by the foreign language learners is the inability to use the target language in real life outside the classroom due to the fact that there is always a very limited opportunity for them to do this. Practicing the target language is

mainly done in the foreign language classrooms at a limited level. One way of getting learners to speak in the classroom is forcing them to do so. However, forcing students to take part in oral classroom activities or conduct real-life tasks in the classrooms is often useless as some students may not have sufficient meaningful input to communicate in the classroom. However, VWs may create new opportunities for students to solve persisting problems such as unwillingness to communicate, demotivation and high communication anxiety. Even though many studies explored the factors that affect the WTC of foreign language learners, there is an empirical research gap in the literature on the tools to increase WTC.

In Turkey, success of English as a foreign language education has been debated for a long time, especially from the point using English in a meaningful and authentic way. Turkey has only one method of assessment in the entrance to foreign language teacher education programs. The test taken by the program candidates includes grammar, vocabulary, and reading sections. But, there is no assessment of the listening, writing and speaking skills of program candidates. This situation directs STs of ELT programs to focus on learning of grammar and vocabulary. As a result, STs have problems with writing and speaking when they start studying in ELT programs (Sert, 2010). It seems STs are less motivated and have a high degree of anxiety with specific respect to speaking when they enter the English teaching programs in Turkey. Nunan (1999) believes that in traditional language classrooms, learners do not have positive views on speaking English because active communication in the curriculum/classroom is rare. It is found in the literature that many English teachers often do not teach their classes in English due to their low language proficiency. Lee (2002), for instance, showed that language teachers with self-perceived low proficiency avoid teaching communicative skills to their students. In conclusion, engaging language learners in real-life tasks is challenging in traditional classrooms. Utilizing virtual worlds may allow active communication in simulated environments.

1.3 Purpose of the Study

This study aims to investigate the effects of using the VW SL on the WTC, motivation, and communication anxiety of first-year EFL STs. The main area of investigation is whether there VWs have a positive impact on WTC, motivation, and communication anxiety. Many previous studies have highlighted the need for learners to have high WTC in English, high

motivation, and low anxiety. It is believed that WTC initiates the eventual communication both inside and outside the classroom. Similarly, an anxiety level that does not impact learning negatively as well as strong motivation are both crucial to language learning. Hence, this study aims to explore whether the VW SL contributes to the WTC and to decreasing the anxiety levels of STs.

Another major aim of this present study is to explore VWs as alternative environments for L2 language instruction. Conducting ten real-life tasks (Orientation, Adventure & Travelling, Food, Jobs, Shopping & Clothing, Sports & Games, Art & Culture, Music, Health, and Cinema & Theatre) in SL could be a useful way to implement foreign language instruction. Hence, the study suggests a 10-week task-based language teaching & learning for teacher trainers, and teachers who want their students to accomplish real-life tasks in the VW of SL. The study provides a guideline on how 3D VWs can be integrated into language education, especially task-based language education.

1.4 Research Questions

Research questions of the study are as follows:

1. Does the use of a virtual world affect EFL student teachers' WTC in English? If so, what characteristics of the virtual world do participants mention as an influence on their WTC?
2. Does the use of a virtual world affect EFL student teachers' motivation? If so, what characteristics of the virtual world do participants mention as an influence on their motivation?
3. Does the use of a virtual world affect EFL student teachers' communication anxiety? If so, what characteristics of the virtual world do participants mention as an influence on their communication anxiety?
4. What are the views of EFL student teachers about using a virtual world for language learning?

1.5 Significance of the Study

Student-centered teaching requires students to become active receivers, and it is closely related to cooperative and constructivist learning (Lin & Hsieh, 2001). Similarly, VWs provide educators and learners with environments in which learners can utilize the tenets of constructivist learning (Dickey, 2005). In these virtual environments, importance is given to communication. In Turkey, English language teaching and learning has been subjected to profound reform, and thus the Ministry of National Education's (2013) new curriculum gives great significance to communicative language teaching. This study may help language learners and teachers to utilize TBLT in VWs with its syllabus and guideline for using tasks with EFL STs. Hence, this study will yield useful insights into EFL teacher training programs as well. Moreover, as the STs who have participated in this research will be English language teachers of digital natives that will be able to use almost all the technological tools -including VWs-, preparing teachers of the future to use VWs for authentic L2 communication is crucial.

With globalization and the widespread use of English across the world, many countries have updated their language education policies. One of the major language policy changes is an aim to improve communicative language abilities of language learners. However, studies on second/foreign language learning have yielded that foreign language learners, particularly Turkish learners, are unwilling to participate orally (e.g., Jackson, 2002; Öz, 2014). Similarly, the literature shows that motivation and anxiety (Batumlu & Erden, 2007) are two crucial constructs that impact success in language learning. Hence, this study contributes to the existing literature in several dimensions as it intends to find out how a virtual world, namely SL, contributes to Turkish EFL learners' WTC, motivation and communication anxiety. The conclusions drawn from the study are meaningful for language learners and teachers, teacher educators, and administrators because the literature demonstrates that STs should be involved in language learning environments in which teachers and learners might use the target language beyond the classrooms.

Language teachers have a set of beliefs, philosophies, and expectations when they come to any teaching situation (Carter & Elseth, 2009). The literature shows that language teachers' decisions to use different materials, activities, or methodologies are determined by their beliefs and experiences in the face-to-face classroom. Teacher education programs make a difference in STs' beliefs (Özmen, 2012), therefore integrating different technologies into

the classroom has some aims. According to Carter and Elseth (2009), experiences shape language teachers' pedagogy and when they are introduced to new tools or methods, they feel uneasy. Therefore, teachers should be confident about using new technological tools and learning about benefits of the tools (Hong, 2010). This is quite important with emerging technologies as they have some challenges. Hence, another contribution is the introduction of VW technology to STs and teacher trainers. This study aims to identify a supporting instructional design for task-based language teaching in EFL contexts. By combining SL and task-based language teaching, Turkish EFL STs can be given numerous opportunities to practice English online. Providing learners with opportunities is crucial because after investigating WTC levels of Turkish EFL STs, Öz, Demirezen, and Pourfeiz (2015) concluded that more opportunities should be given to Turkish EFL learners to communicate in more stress-free environments as they are unwilling to participate orally (Jackson, 2002; Öz, 2014). The research findings show that virtual worlds may provide these kinds of environments.

This study is also significant because limited research exists on VWs and STs' WTC, motivation, and anxiety. Previous research has investigated the effects of VWs on language learners' motivation (e.g., Kamalı, 2012; Wehner et al., 2011), levels of foreign language anxiety (e.g., Balçıkanlı, 2012; Wehner, 2014; Wehner et al., 2011) and the development of learner autonomy (e.g., Kruk, 2014), but little research has been conducted on the effects of VWs on WTC.

Today, children spend most of their time with TV, internet, press-broadcast and communication tools (Livingstone, Haddon, Görzig, & Ólafsson, 2010). A survey was conducted by EU Kids Online including 25 countries, one of which was Turkey, and the findings showed that 48% of children who were between nine and sixteen years old were using the internet to share with friends in social networks. The findings also revealed that 49% of the Turkish children in this age group have social networking accounts. This survey suggests that a majority of children across the world and in Turkey are communicating through social networks. Hence, the overall benefit of this research is to improve language teacher education programs. With the evidence found by EU Kids Online, the participants of this research will be the teachers of competent internet users. Therefore, introducing them to VWs is crucial.

Moreover, recently EFL instruction has been shifted from traditional grammar-based teaching to communicative-based teaching. ELT in Turkey is still going through this shift. With this in mind, EFL teachers have new responsibilities. Instead of being the only source of knowledge, they must facilitate, and they should provide opportunities for their students to take part in meaningful communication (Richards & Rodgers, 2014). One of the most effective ways of utilizing the tenets of communicative language teaching is task-based language teaching (TBLT). According to Nunan (2004), TBLT represents a particular realization of CLT. Proposed by Willis (1996), TBLT aims to construct knowledge and developing language skills by having students conduct tasks using the target language. By considering the outcomes of this research and above discussion, language teacher training programs can develop more effective TBLT by improving student engagement.

Last but not least, the research suggests a model that explains the nature of communication in traditional classrooms and the Multi-User Environment (MUVE) SL. From the classroom perspective, this analysis can be discussed under the dimension named MATURAL (Mannered Speech, Anxiety, Time-related issues, Unattractive Environment, Restricted risk-taking, Artificial environment, and Limits). When the advantages of the SL are considered, the NATURAL (Natural environment, Attractive, Time-free environment, Risk-taking, Liberating) dimension of the model emerges. The MATURAL dimension also explains the avoidance of speaking in the class. Even though this research did not aim to discover the effects of using real-life tasks on the WTC, motivation, and communication anxiety, an implication of the research is the contribution of tasks. The tasks were successful in getting STs to participate actively, which was reflected in the interviews. This research showed that STs could practice communication in SL without feeling negative affective factors. It also shows that VWs can be useful tools for foreign language learning and teaching. Interactions with the VW and other users, as well as STs' positive views on this VW can be interpreted as potential opportunities for real-life communication in L2 contexts and the development of other language skills. The model suggested in this research can improve the quality of teacher training programs with specific respect to the L2 communication of STs.

1.6 Assumptions

In this study, the participants' verbal and written consents are taken. Therefore, they are expected to respond to the questionnaires sincerely and state their actual views throughout the weekly evaluation forms, focus-group, and semi-structured interviews. It is also assumed that STs who are observed while conducting ten real-life tasks in SL have not changed their behaviors and attitudes solely because they have been participating in a research study. The participants' language proficiency levels were assumed to be similar as they entered English Language Teaching department by taking the same national standard test (University Entrance Exam/Foreign Language Test) and earning similar scores. Also, the duration of the study is assumed to be adequate to gain insights into the impact of the TBLT in SL on participants' WTC, motivation, and communication anxiety. Last, it is assumed that the findings of this study show real perceptions of the EFL learners about the dependent variables of the study.

1.7 Limitations of the Study

This study has some limitations. First, it is limited to the first year EFL STs who were studying at English Language Teaching Program of an educational faculty. Thus, their reflections may not represent those of learners in other universities' teacher training programs in Turkey. Second, the participants of the present study were first-year STs of a state university in Turkey, and so future studies should determine whether similar results can be obtained for STs of English as a second or foreign language in other countries and with different levels of education. Lastly, all the participants involved in this study have not had experience in a VW environment and the novelty of such setting might have played a role on the results of the study.

1.8 Definitions of the Key Terms

Avatar: 3D representation of a person who uses the virtual world.

Multi-User Virtual Environments (MUVE): Online virtual environments in which residents can interact with digital content and with others.

Second Life (SL): A commonly used 3D virtual world owned by Linden Lab and started in 2003.

Task-Based Language Teaching & Learning (TBLT): Using specific tasks to accomplish something by using the target language. For example, checking-in at an airport or ordering a meal at a restaurant.

Virtual World (VW): A three-dimensional online space where users can interact with one another. Users can use avatars to walk, run, fly, and teleport.

Web 2.0 Tools: Interactive and collaborative tools and applications in which users can create and share content such as blogs, wikis, podcasts, and virtual worlds.



CHAPTER II

REVIEW OF THE LITERATURE

This chapter begins with a discussion of the theoretical framework of the study. This is followed by background literature and studies on virtual worlds, willingness to communicate, motivation, and communication anxiety in different contexts and instructional settings. The literature on task-based language teaching and language teacher education is also provided.

2.1 Web 2.0 Technology and Virtual Worlds

Computer-mediated communication is very significant because it helps to conduct real-class activities online (Garrison, 2009). As Bedi and Lange (2007) assert, this online communication is a way to stimulate the same level of discussion that occurs in face-to-face classes. Recently, Web 2.0 tools have been used to promote online discussion via computer-mediated communication (Solomon & Schrum, 2007). In addition, these tools have been used for various purposes such as conducting real-life tasks (Richardson, 2006; Rosen & Nelson, 2008), teaching of 21st-century skills (Discipio, 2008; Goh & Kale, 2016; Greenhow & Askari, 2017; Nussbaum-Beach, 2008), and cooperative and constructivist learning (Leuf & Cunningham, 2001; Notari & Honegger, 2010).

Web 2.0 is used to describe the next generation of Internet technologies. They are web-based platforms where users can create and post content, interact via social networking, conduct real-life tasks with other people, rework existing content, and share data or deliverables. These tools also allow for "collaborative content building, dissemination, and categorization" of information (Sykes, Oskoz, & Thorne, 2008, p. 529), and have become

the main communication tools among “digital natives” (Prensky, 2001). In order to understand Web 2.0 tools, it is important to compare them to Web 1.0 tools. In Web 1.0, the content was delivered to Internet users who were just passive receivers. In Web 2.0, users are not just passive receivers but contributors as well. In other words, users can actively use Web 2.0 tools to participate, collaborate, and communicate. For instance, they can write or edit information; upload pictures, images, podcasts, or videos; communicate in real-time; and participate in online activities.

Web 2.0 tools include blogs, wikis, sites for social network and digital file sharing, podcasts, and VWs. These tools have tremendous potential in education as they allow for collaboration and communication among learners (Coutinho, 2009). Hence, the shift from Web 1.0 to Web 2.0 has changed language educators’ approach to integrating technological tools into language teaching as well. Today, language learners have the power to change and create new content. This improvement allows educators to use Web 2.0 for diversified learning activities. For instance, these tools are helpful in increasing learner & learner interaction, teacher & learner interaction, and even learner & teaching material interaction. Furthermore, these tools allow users to conduct authentic real-world activities such as communicating, shopping, trading, and business meeting (Anderson, 2007; Richardson, 2006; Rosen & Nelson, 2008; Solomon & Schrum, 2007). Additionally, the literature provides evidence that Web 2.0 tools have the potential to teach 21st-century skills to language learners (Discipio, 2008; Goh & Kale, 2015; Greenhow & Askari, 2017; Nussbaum-Beach, 2008; Pascopella, 2008). One example of a Web 2.0 tools that has the potential to teach 21st-century skills to language learners is 3D VWs.

A virtual world is a computer-simulated environment that simulates real or imaginary places. People can participate in learning communities and interact socially with others from around the world in a VW. Real people are represented by avatars, which they can use to interact, collaborate, meet, explore and form social groups. Wagner and Ip (2009, p. 250) categorize VWs by considering their nature and purposes, and describe VWs as “immersive, three-dimensional (3D), multimedia, multi-person simulation environments, where each participant adopts an alter ego and interacts with the world in real time.” Residents of these environments can move throughout the world with ease by teleporting. This takes away any distance that may separate things within the VW, so that time is not a major factor when moving from one part of the VW to another.

According to Zheng and Newgarden (2011, p. 31), VWs are “metaverses where avatars interact with one another and with software agents in a three dimensional space that exists as a metaphor for the real world.” Real or physical world are simulated in these environments. Therefore, even if a user is offline, life in these environments goes on and the world continues to change as long as other users remain active. As these environments allow ownership of land and objects, they encourage a sense of place and of self. Jones (2005) argues that this feature of VWs helps to add value to the social meaning of interaction in the environment. Although VWs do not replace real life, “users find meaning and experience in a type of reality that has ramifications for their actual world beyond identity exploration and social interaction” (Jones, 2005, p. 22).

Although they are used interchangeably, VWs are different from simulations and online games. While a VW can simulate the real world, it differs from a simulation. A simulation is an interactive environment that models a particular task or phenomena, allowing the user to experiment with and react to the simulation (Robbins & Butler, 2009). For instance, flight simulation is a popular one. A VW allows more than a simulation. Despite some similarities such as shared space, graphical user interface, persistence, socialization, and interactivity (Book, 2004), VWs are different from games in some ways. The overall difference is that there is not a final goal in a VW. The residents can live another life inside a VW, and they can travel, shop, buy and sell homes and cars, seek employment, and cooperate with each other. According to Book (2004), people go to a VW to take part in social activities rather than to win, the goal if they were playing a game. In other words, the users of a VW have no specific goals or objectives to achieve something; rather, their purpose is to socialize and communicate with other people. Another difference is that VWs are almost completely customizable; the environments themselves can change in line with the likes and dislikes of the users. Residents in a VW can advertise and sell items and participants can hold jobs where they earn money to purchase these items or other items that can be traded giving the VW a commercial feel (Book, 2004). As real people are represented by avatars, VWs allow interaction despite being separated by some distance in real life (Bartle, 2004).

2.1.1 Theoretical Framework

Although, Twining (2009) believes that “virtual worlds are unclaimed spaces [in that] educators have not yet established norms of how to support learning within them” (p. 503), Johnson (2006) argues that in VW learning environments, the communicative dimension of a language is at the center. Vygotsky (1978) acknowledges that social environment is an indispensable part of one’s learning. Wang et al. (2009) suggests that VWs aroused interest among educators as they are providing constructivist educational tools. Thus, the study discusses the teachings of Vygotsky (1978), Piaget (1955) and some other scholars. Taking these into consideration, the theoretical framework is provided under experimental learning, constructivism, situated learning, and flow theory.

2.1.1.1 Experiential Learning

Based on constructivist assumptions, experiential learning has become popular through the works of John Dewey, Jean Piaget David, and A. Kolb. For instance, Kolb’s work attributes a central role to experience in the learning process. Kolb (1984) argues that the learning process follows a cycle of concrete experience, reflective observation, abstract conceptualization, and active experimentation. He (1984, p. 41) believes that “knowledge results from the combination of grasping and transforming experience.” From this point of view, it can be concluded that it is important how people learn and how they apply what they learn. Similarly, Brown, Collins, and Duguid (1989) believe that knowledge cannot be considered independent from the context in which people use it. They also claim that knowledge should be embedded in authentic situations in order to make learning meaningful. This theory views experience at the center of learning, which allows learners to become involved in learning actively and take charge of their own learning. There are many other scholars who attach great significance to social engagement and learning in context (e.g., Lave & Wenger, 1991). Learning by experience and in context also shows that learning takes place in the real environment.

There are some implications of this theory for EFL. In ELT, experiential learning theory has taken the form of a task-based language learning and discovery-learning. In the classroom context, experiential learning is about doing things such as playing games or

performing tasks by using the target language. No explicit teaching of language takes place in advance of these activities or tasks. Students are not presented with grammatical forms before a task because they are expected to find them out on their own since learning is seen as a process of self-discovery.

The implications of the theory for foreign language teacher education is that it offers a flexible and helpful framework for both formal and informal teacher learning. A structure for the design of teacher learning activities is suggested. In ELT, it has been recognized for some time that teacher learning is very much about shared experiences. While student teachers are elaborating on their experiences, they generate new ideas and want to experiment them and put them into practice. Teachers need to know that experience alone is not sufficient for learning to take place. It needs to be complemented by interpretation in order to engage constructively with teaching experience and feedback: getting involved in a variety of tasks such as observation, analysis, discussion, and reading. One of three main teacher education models might be grounded on this reflective cycle, also strongly supported by Wallace (1991). This model of teacher education emphasizes experience along with knowledge-base of the profession, called “received knowledge.” Knowledge gained through action is called “experiential knowledge” (Wallace, 1991). In this model of teacher education, reflection is the key factor in making sense of experiences. This model also stresses the importance of the continuing cycle of practice and reflection, which ultimately leads to professional development.

There are numerous researchers who found that VWs potentially afford experiential learning benefits (e.g., Chittaro & Ranon, 2007; Dalgarno & Lee, 2010; Freitas & Neumann, 2007; Jarmon, Traphagan, Mayrath, & Trivedi, 2009). In these environments, simulations can be created to allow the practice of skills, or to “undertake embodied learning” (Dalgarno & Lee, 2010, p. 19). Following Kolb’s (1984) experiential learning theory and the model proposed by De Freitas and Neumann (2007), Hew and Cheung (2010) concluded that the users of a VW could learn by doing, test their hypotheses about the world, and observe the outcomes of any actions. Moreover, experiential learning tasks in a VW can facilitate learning activities that would be impossible or impractical in real life (Dalgarno & Lee, 2010).

2.1.1.2 Constructivism

Constructivism is primarily a learning theory that contributed to the philosophy of knowledge with a new point of view, and it is also crucial for language learning. Constructivist learning assumes that learning is constructed by interpreting new knowledge using prior knowledge (Kuiper & Volman, 2008). According to Lin and Hsieh (2001), a “constructivist model calls for learner-centered instruction: individuals are assumed to learn better when they are forced to discover things themselves rather than when they are instructed.” An example of this principle in action is asking students to find a solution to a problem while checking in at an airport. Accessing resources, working together, and creating tasks may be ways of conducting constructivist learning in language teaching context (Hazari, North, & Moreland, 2009). The principles of task-based language teaching—such as learning by doing, authentic real-life tasks, rich input, inductive learning, and collaboration—can be reached in a virtual environment (Doughty & Long, 2003). These principles are highly related to constructivist learning’s assertion that learning is not conducted independent of either society or cognitive processes. According to Dickey (2005), “the theoretical assumption is that learners construct understandings by interacting with information, tools, and materials, as well as by collaborating with other learners” (p. 441). In the constructivist view, it is believed that learners associate meaning with real-life experiences (Creswell, 2007). VWs can provide the opportunity for participants to interact with items including information, tools, and materials, as well as the opportunity to collaborate with others—both peers and instructors—by conducting real-life tasks. The constructivist approach requires that learners be involved to produce their own realities based on the items introduced to them. While learning, a VW is an appropriate environment for learners to create their own realities. As these environments also provide the simulations of real-world tasks like shopping, trading, traveling, and exploring, utilizing the tenets of constructivism is very applicable. Constructivism is an oft-reported foundation for designing and examining teaching and learning within virtual worlds (Baker, Wentz, & Woods, 2009; Dickey, 2005; Falloon, 2010).

The Internet provides educators with potentials to implement the principles of constructivism into language learning settings. We learn from Piaget’s volumes of writings that learning is a constructive process and the association of prior knowledge with the new experiences is quite important while the learner is constructing the new knowledge. Piaget

(1955), for instance, believes that learning occurs through interaction. Therefore, the focus is not on the teacher or new information but on the learner. Williams and Burden (2000, p. 21) summarize this as follows:

“In contrast to more traditional views which see learning as the accumulation of facts or the development of skills, the main underlying assumption of constructivism is that individuals are actively involved right from birth in constructing personal meaning, that is their own personal understanding, from their experiences. In other words, everyone makes their own sense of the world and the experiences that surround them. In this way, the learner is brought into central focus in learning theory.”

Similarly, Johnson (2006) argues that VWs offer students a possibility for characteristic transformation, as they urge the users to take charge of their own actions during learning. Learning unfolds when student expand basic items into much more complex clusters. VW users can alter the surrounding according to their needs and can actually participate in the process, interpreting the surrounding environment.

Constructivist learning can be promoted by utilizing the modeling, communication, and computational characteristics of VWs. Many previous studies showed that VWs provide many collaborative learning opportunities for educators and students (De Lucia, Francese, Passero, & Tortora, 2009; Schmeil, Eppler, & De Freitas, 2012; Warburton & Pérez-García, 2009; Yang, Yeh, & Wong, 2009). These environments facilitate collaboration, social interaction, and shared immersion via communication tools (Jarmon et al., 2009).

There is an inextricable link between constructivism and situated learning as well. According to Duffy and Jonassen (1992), “each experience with an idea —and the environment of which that idea is a part— becomes part of the meaning of that idea. The experience in which an idea is embedded is critical to the individual’s understanding of and ability to use that idea” (p. 4). This suggests that knowledge and meaning are constructed within situated experiences. Thus, situated learning is another component of this theoretical framework.

2.1.1.3 Situated Language Learning

According to Zuengler and Cole (2005, p.312) “language socialization should become one of the major paradigms for research on second language acquisition, replacing the traditional cognitive-oriented models.” Language socialization and situated learning have

in common that "they underscore the role of social identity and relationships as well as the importance of the historical and practical conditions of language use in learning" (Barton & Tusting, 2005, p. 40). Situated learning was used by Lave and Wenger (1991) to describe how learning is constructed in an environment in which it occurs. According to Felix (2002, p. 3), in situated learning, learners are "active constructors of knowledge who bring their own needs, strategies and styles to learning, and skills and knowledge are best acquired within realistic contexts and authentic settings, where students are engaged in experiential learning tasks." Situated learning focuses on the role of the context in language learning and knowledge construction. In situated learning, the key element is "participation", which is described as "both the product and the process of learning" (Zuengler & Miller, 2006, p. 38).

A VW environment is appropriate for situated learning as it enhances the learning efficacy and students can feel the sense of place (Bellotti, Berta, de-Gloria, & Primevera, 2010). VWs provide an opportunity to achieve situated learning via environmental simulation. Situated learning occurs successfully when the language learning tasks are goal oriented, situated, interactive, and authentic. According to situated language learning, language learning is an ongoing process that never ceases. Therefore, a VW helps learners to practice language whenever they want. Furthermore, in a virtual environment language learners perform certain identities in order to participate in certain practices in a given learning community through which the learning occurs.

2.1.1.4 Flow Theory

Originally conceptualized by Csikszentmihalyi (1975), flow theory is the idea that learners perform best when their skill set and the difficulty of the task being completed are balanced. According to Egbert (2003, p. 561), flow can occur in a foreign language classroom when certain factors are present, including "deep sense of enjoyment and playfulness." Additionally, flow relates to focused attention on a given task, interest in the task, and control over the task (Egbert, 2003). The theory asserts that learning environments need to be engaging in order to capture and keep learners' attention, and to arouse their curiosity (Barab, Thomas, Dodge, Carleaux, & Tuzun, 2005; Egbert, 2003).

Regarding flow theory, a VW has the capability to encourage improvement in a variety of tasks at a rate favorable to users. For instance, users can choose, whether or not to partake in building exercises, depending on their skill level. Determining flow in a classroom setting is difficult because the difficulty and interactive nature of each task vary considerably per individual. However, it is reasonable to postulate that playfulness, a component of flow, can and does occur in the environment as users interact with one another and build. In short, VWs offer the potential to create flow to help learners acquire foreign language learning.

2.1.2 The Common Virtual Worlds

Online, publicly accessible VWs have been around as early as 1995 and gained popularity in the mid-2000s. The Association of Virtual Worlds (2008) lists more than 250 VWs including Active Worlds, Croquet, Open Sim, Second Life, Quest Atlantis, and World of Warcraft. These various VWs were designed for different purposes, and different classifications have been suggested to describe them (de Freitas, 2008; Warburton, 2009). According to Welch (2008), VWs can be divided into four categories: “general purpose” and “specific function,” and “private use” and “public use” (p. 12). Warburton (2009) believes that “[t]he boundaries between these categories are soft and reflect the flexibility of some virtual worlds to provide more than one form of use” (p. 416). De Freitas (2008) considers Second Life and Active Worlds (AW) to be social worlds that have public and general purposes. As they are open to all users, they are public. On the other hand, the users can create and do whatever they want within the virtual world, which makes them general in purpose. In another classification, Sykes (2011) refers to Open-Sim, SL, and AW as Multi-User Virtual Environments (MUEs).

AW, developed by ActiveWorlds Inc., launched in 1995 and is one of the most popular VWs. Users in this virtual environment can be tourists and citizens. If the user is a tourist, s/he can visit the environment with a tourist avatar. The citizens, on the other hand, can build and own property, communicate, travel, and create and change objects. They can send private messages to nearby users via telegrams and communicate with other users in real time via public chatting or some other tools like Voice over IP. Being a citizen requires premium membership.

Kaneva is a virtual world which allows communication in a 3D environment. It is a large world where you can explore thousands of places and use your 3D virtual home for hanging out with friends. One of the distinctive features of Kaneva is that it is accessible because it does not have complex computer system requirements. For instance, people can use this world without a high-speed internet connection. Users may create avatars and interact with others. They can dance, play instruments, create and build objects, and communicate easily.

2.2.1 Second Life

There are many other VWs, but Second Life dominates the educational world (Warburton, 2009). The web-based VW of SL was developed by Linden Labs and launched in 2003. Users must download the software onto their computer to run SL, which requires a high-end computer and a high-speed Internet connection. After downloading, the users need to create an avatar and create a membership. Because it allows many users to interact simultaneously, it is a Massively Multi-Player Online Role-Playing Game (MMORPG). It can be described as a Multi-User Virtual Environment (MUVE) as well. As such, SL contains computer-generated versions of objects presented in 3D, text, or multimedia form. SL can also take many different forms, ranging from a 3D geometric shape to highly interactive computerized laboratory experiments (Jones, 2005). It enables to own possessions and personal spaces provides an adequate degree of realism.

Generally, VWs provide a chat tool for communication. SL, on the other hand, offers both text and voice chat. In the platform's environment, avatars can roam around freely, socialize with others, and create or manipulate objects in the virtual environment (Jestice, 2010). SL has become popular as an alternative platform for real-life situations as it provides relaxing and risk-free opportunities for training and education.

People take part in SL to participate in many different activities, and one of these is education. Recently, more educational institutions have recognized SL's considerable potential for education. As a result, numerous universities worldwide have invested time and money in researching the platform's educational potentials (Selwyn, 2007). Some of these educational pursuits include astronomy, law, information technology, medicine, language and culture, music, biology, literature, history, mathematics, nursing, forensic

science, ecology, pharmacy, and tourism. Educators reported that using a VW is a way to engage students since it offers an interactive social learning environment (Carter & Click, 2006). Carter (2008, p. 42) reports that more than 120 colleges, universities, and other educational institutions have developed virtual campuses and created educational events like exhibits and conferences.

The potential uses of SL for education includes language (Cooke-Plagwitz, 2008), collaboration & communication (Brown, Hobbs, & Gordon, 2008; Chow et al., 2007; Jarmon et al., 2008; Mayrath, Sanchez, Traphagan, Heikes, & Trivedi, 2007), creativity (Chow, Andrews, & Trueman, 2007; Delwiche, 2006; Jarmon et al., 2008; Mayrath, et al., 2007; Sanchez, 2009), problem-based learning (Good, Howland, & Thackray, 2008), distance education (Brown et al., 2008; Chow et al., 2007; Luo & Kemp, 2008), simulations & games (Cooper, 2007; Delwiche, 2006; Franklin et al., 2007; Yellowlees et al., 2006), group work & projects (Brown et al., 2008; Delwiche, 2006; Good et al., 2008; Jarmon et al., 2008; Mayrath et al., 2007), community & social interaction (de Lucia, Francese, Passero, & Tortora, 2009; Delwiche, 2006; Gillen, 2009; Rappa, Yip, & Baey, 2009) role play (Gao, Noh, & Koehler, 2008; Rappa et al., 2009), and providing experiential learning space for language learning (Chee, 2007; Hew & Cheung, 2010).

2.1.3 Previous Research on Virtual Worlds

In recent years, educational researchers and teacher educators have become interested in VWs and language development (Ahmad, Wan, & Jiang, 2011; Andreas, Tsiatsos, Terzidou & Pomportsis, 2010; Aydın, 2013; Blasing, 2010; Childress & Braswell, 2006; Dickey, 2003, 2005; Girvan & Savage, 2010; Grant & Clerehan, 2011; Hislope, 2009; Ishizuka & Akama, 2012; Jarmon et al., 2009; Knutzen & Kennedy, 2012; Lan, Kan, Sung & Chang, 2016; Wang, Calandra, Hibbard, & Lefaiver, 2012; Wang et al., 2009; Wang, Song, Stone, & Yan, 2012; Wehner, Gump, & Downey, 2013, Zheng, Young, Wagner, & Brewer, 2009). VWs have a great potential to promote language education as they allow users to practice a target language. Research has shown that virtual environments provide visual and linguistic support for language learners and facilitate language teaching and learning (Campbell, 2009; Chen, 2016; Dede et al., 2005; Jarmon et al., 2009; Mayrath, et al., 2009; Wang, Lefaiver, Wang, & Hunt, 2011). VWs are necessary as recent

technological developments have changed how people interact, by adding electronic to spoken interaction (Chapelle, 2001). Some earlier research conducted on VWs investigated the attitudes and perceptions of language learners (Balçıkanlı, 2012; Blasing, 2010; Cheong, 2010; Gamage, Tretiakov, & Crump, 2011; Hislope, 2008; Huang, Rauch & Liaw, 2010; Kennedy-Clark, 2011; Kern, 1995; Kruk, 2014; Liou, 2012; Pfeil et al., 2009; Saraç, 2014; Shih & Yang, 2008; Wang et al., 2009; Wehner, Downey, & Gump, 2011; Zheng, 2009), communication anxiety and shyness (Pfeil et al., 2009), interaction, online identity development and discourse patterns (Axelsson, Abelin, & Schroeder, 2003; Brown & Bell, 2004; Cooke-Plagwitz, 2008, 2009; deNoyelles & Kyeong-Ju Seo, 2011; Deutschmann et al., 2009; Hagsand, 1996; İstifçi, Lomidazde, & Demiray, 2011; Jamaludin, Chee & Mei Lin Ho, 2009; Jauregi et al., 2011; Kaplan-Rakowski, 2010; Kuriscak & Luke, 2009; Peterson, 2006, 2010; Savin-Baden, 2010; Shih & Yang, 2008; Stoerger, 2010; Traphagan et al., 2010; Zheng, 2009; Zuiker & Ang, 2011), communication and options for avatar customization (e.g., Lee, Ahn, Kim, & Lim, 2006; Sweeney et al., 2011; Warburton, 2009), creation of motivating and real life-life tasks (e.g., Savin-Baden et al., 2010; Stoerger, 2010; Sweeney et al., 2011), and social interaction in teaching and learning (de Lucia et al., 2009; Jamaludin et al., 2009).

After investigating STs' experiences of teaching English in SL and observing student teachers' overall positive perceptions of SL as an EFL learning platform, Wang et al. (2011, p. 37) concluded that:

... the student teachers took a lot from this opportunity and felt confident about its future potential. Second Life is clearly a platform with much to offer to EFL/ ESL instruction. With the addition of technology support, clearly defined objectives and curriculum, and supporting resources such as blogs and lesson plans, SL is poised to become a great supplement to EFL learning and instruction. In the exact words of one teacher, "I see so much potential, it is so exciting."

SL and some other VWs have been used as a research environment in many previous studies (Balçıkanlı, 2012; Bulu, 2012; Dickey, 2010; Kamalı, 2012; Roed, 2003; Singh & Lee, 2008; Wang et al. 2009; Wehner et al., 2011). This next section illustrates some previous research studies on VWs.

Investigating the use of AW in an asynchronous undergraduate business-computing course and an informal synchronous object-modeling course, Dickey (2005) explored the use of

this virtual environment and learner perceptions. The researcher used various resources and assignments existed in different buildings for students to use interactively. The environment allowed collaboration among participants as needed or desired. The findings revealed that learners felt like they were at school in the virtual environment, situating the learning in the school context. Dickey (2010) conducted another study in which AW and SL were used. In general, “the findings revealed that both AW and SL provided an engaging environment for learning” (Dickey, 2010, p. 16). It is also found that for both environments, themes of visual representation, cost, and security were the greatest concerns of the participants.

In an experimental study, Peterson (2006) investigated the nature of learner interaction management in 3D AW. The participants worked in pairs for five weeks. Peterson analyzed the data via sequential and discourse analysis and found that interaction was facilitated in online environments when the learners managed their discourse and adopted a number of interactional and transactional strategies. Although the researcher did not measure any language skills, it was found that the use of VWs may facilitate language development through these strategies. Another study by Peterson (2012) found that interaction in SL improved interaction, discourse management, engagement, and participation. It also found that participants developed positive attitudes towards interacting in SL. The study concluded that SL provided a dynamic, motivating and engaging new context for language learners and it appeared to be a feasible environment for learner-based computer assisted language learning projects involving small groups.

Singh and Lee (2008) investigated learners’ perceptions of using SL as an interactive teaching tool. The results showed that online training increased student involvement and participation. The participants found SL useful as teaching tool for tourism and hospitality courses. In another study on VW perceptions, Couto (2010) determined the relationship between anxiety and the use of VWs. The participants were foreign language learners of Spanish and English. Speaking practice sessions were conducted in SL and the participants’ opinions were investigated. The participants mentioned their willingness to practice English and Spanish both face-to-face and in VWs. The results showed that VWs is a way of reducing anxiety in language performance of learners.

In another study inside SL, Brown et al. (2008) examined group work in SL. The participants were 12 students enrolled in a Computer Gaming and Animation Technology

degree program. Three groups were formed, and the four participants in each group were asked to go a treasure hunt and participate in a building competition. The findings showed that although they were not always on-task, the participants were still involved in independent learning. Also, the participants conducted a considerable amount of demonstration and sharing in SL. These findings suggest that SL provides to provide a potential platform for field trip activities and open-ended learning.

Wang et al. (2009) conducted a study to understand how SL helped to promote language skills of foreign language learners. The study aimed to create a foreign learning program in SL among Chinese and American learners. Chinese students were paired with American students to interact with each other in English. The study concluded that SL provided possibilities for learners from different countries regarding peer-learning, cultural sharing, and collaboration.

A case study, conducted by Kamalı (2012), examined the experiences and perceptions of preparatory EFL learners on motivation, self-confidence, and anxiety. Task based-language learning activities (i.e., hotel, traveling, farewell party) were used with the students. The learners were given different roles conducted speaking activities with native speakers, peers, and instructors in SL. The findings suggested that the SL experience of students by communicating with native speakers of English with task-based activities increased motivation and self-confidence. Moreover, participants stated that they had overcome their speaking anxiety. The study concluded that VWs can be effective tools for language education in Turkey.

In another study Wehner et al. (2011) investigated the relationship between motivation, VWs, and language learning of university-level Spanish learners. They explored whether there was a difference between the experimental and the control group regarding their motivation. The findings showed that SL group was more motivated and less anxious than the other group.

Zuiker and Ang (2011) investigated the attitudes of pre-service teachers and working teachers about the use of VWs. Pre and in-service trainings were designed in a virtual environment, and a survey on the concerns and perceived challenges collected participant data. Eleven primary and 15 secondary level in-service training teachers participated in the study. The pre-service participants were 24 student teachers enrolled in a 12-month

certification program. Quest Atlantis was used as the virtual environment. The study concluded that both groups had positive attitudes towards the use of VWs.

Balçıkanlı (2012) aimed to use SL as a practical tool to find out how it would affect language learners' oral interactions. In the study, SL was used to observe Turkish and American students' perceptions about SL. Turkish EFL learners and American learners of Turkish interacted in SL. The findings showed that despite some challenges, VWs served as useful tools for language learning activities because they had the potential to lessen the stressful environment of language classrooms. The researcher maintained that the SL environment provided an anxiety-lowering, learner-centered, and autonomous learning environment that promoted interaction among the Turkish and American participants. Furthermore, it found that SL reduced the risk of feeling threatened. These findings are quite promising as the participants found the VW experience less anxiety-provoking than face-to-face interactions. In another study, Bulu (2012), observed how students learn different learning techniques (Six-hat thinking, fishbone, aquarium, dispute, role-playing, situation-based) in SL. Feedbacks from the participants was positive. The study concluded that learners had fun learning with SL and they are highly engaged and motivated.

2.2 Willingness to Communicate in L2

WTC was originally introduced by McCroskey and Baer (1985) to discuss native speakers engaging in first language communication. At first, WTC was considered to be like a trait. In other words, it was believed that a learner's WTC remains stable over time and across communication situations. Hence, WTC was considered as 'the probability of initiating communication, given the opportunity' (McCroskey & Baer, 1985, p. 420). On the other hand, when it was studied in L2 communication, it was observed that there exist some individual and situational variables which influence a speaker's tendency to take part in the communication (MacIntyre et al., 1998). Therefore, L2 WTC was conceptualized both as a trait and a state level, which shows discrepancies in different situations. Taking this into consideration, MacIntyre et al. (1998) defined WTC as "a readiness to enter into the discourse at a particular time with a specific person or persons, using a L2" (p. 547).

Several WTC model studies have been conducted in L2 and they help to understand how the individual and situational variables work. These studies have revealed that the variables

affecting WTC are expanding. Some variables that act as a predictor of WTC are motivation, perceived competence of L2, anxiety, teacher support, attitudes towards the international community and their perceived linguistic self-confidence, online chat, integrative motivation, students' perception of speaking activities in the foreign language classroom, international posture, and students' attitudes toward the language (Çetinkaya, 2007; Freiermuth & Jarrell, 2006; Leger & Storch, 2009; MacIntyre, Baker, Clément, & Donovan, 2003; Peng, 2006; Wen & Clément, 2003; Yashima, Zenuk-Nishid, & Shimuzu, 2004).

The first WTC model was applied to L2 by MacIntyre and Charos in 1996 (Figure 1). This model describes the relationships among second language learning and communication variables. The context is teaching French as a second language in Canada. By adopting Gardner's (1985) socio-educational model, the researchers put the factors of integrativeness, attitudes, and motivation to their model. They found that perceived L2 competence, attitudes, motivations and L2 anxiety had an impact on L2 WTC. In the final version of the model, they found that personality traits (intellect, extraversion, agreeableness, emotional stability, and conscientiousness) were related to integrativeness, motivation, WTC in the second language, attitude, L2 anxiety, and perceived competence. The model also shows that L2 anxiety negatively affects perceived competence and integrativeness, that both perceived competence and L2 anxiety influence L2 WTC. Last, L2 communication frequency was found to be affected by the context.

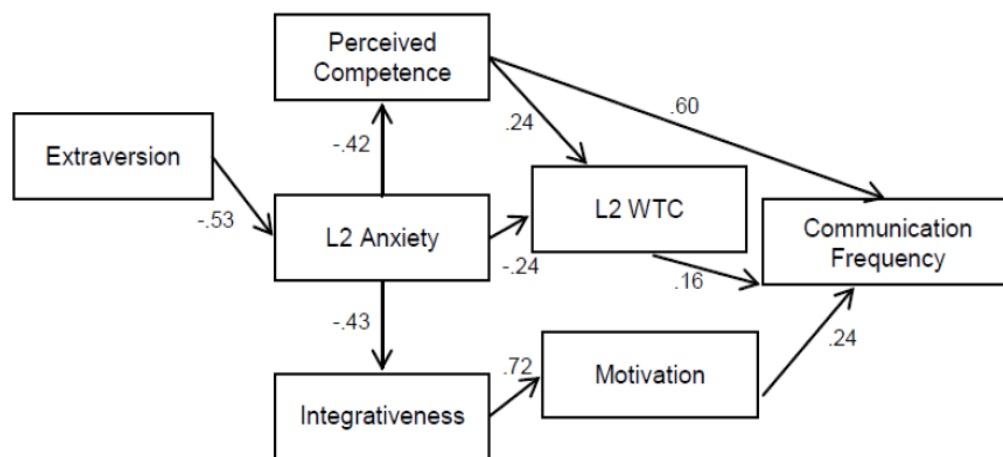


Figure 1. The first WTC model. Taken from MacIntyre and Charos (1996). MacIntyre, P. D., & Charos, C. (1996). Personality, attitudes, and affect as predictors of second language communication. *Journal of Language and Social Psychology*, 15(1), 3–26.

In another study, a heuristic model was conceptualized by MacIntyre et al. (1998), which includes variables in a six-level pyramid in order to explain the interrelations among affective variables influencing the WTC in a second language (see figure 2). This model is both theoretical and practical in explaining WTC as the result of a complex system of interrelated affective variables influencing individual differences in second language acquisition. It is theoretical because its conceptualization is based on some affective variables that have been identified by empirical studies as influencing SLA and L2 communication, rather than on a single affective variable. It is also practical in explaining why some language learners have WTC in the second language even with limited L2 competence. However, some L2 students are unwilling to communicate in the L2 despite sufficient L2 competence. In line with this argument, they claim that “WTC as the final step in preparing the language learner for communication, because it represents the probability that a learner will use the language in authentic interaction with another individual, given the opportunity” (p. 558).

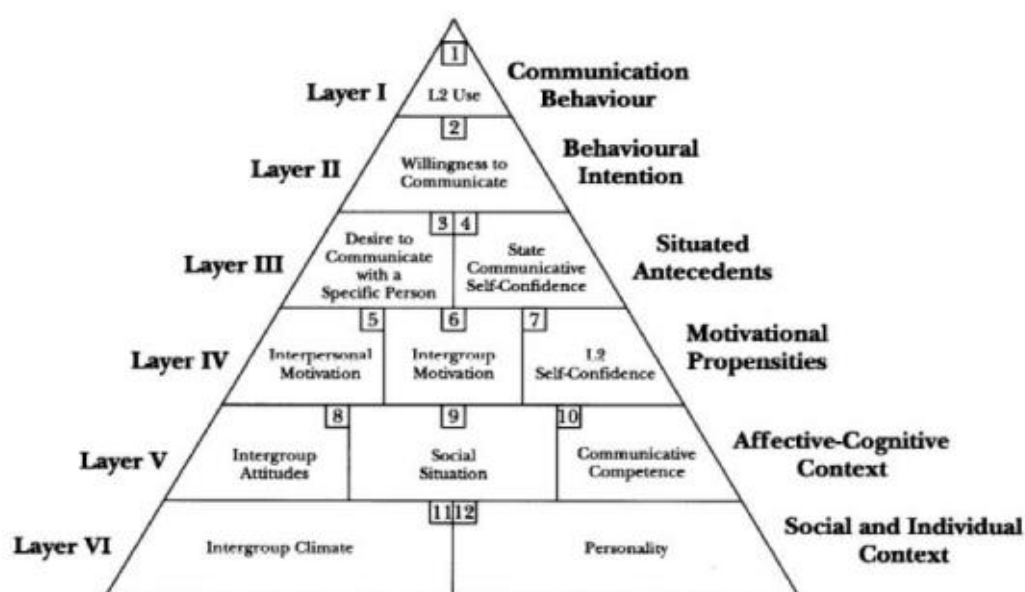


Figure 2. The heuristic model of variables influencing WTC. Taken from MacIntyre et al. (1998). (MacIntyre, P.D., Clément, R., Dörnyei, Z., & Noels, K.A. (1998). Conceptualizing willingness to communicate in a L2: A situated model of confidence and affiliation. *Modern Language Journal*, 82, 545–562.

In order to investigate the effects of WTC and motivation on the second language use of Japanese ESL learners, Hashimoto (2002) tested a SEM, in which they explored whether motivation and WTC could predict the frequency of communication in the language classrooms. The findings yielded that perceived competence and language anxiety are significantly related to WTC and there is a strong correlation between WTC and motivation.

In an experimental study, Reinders and Wattana (2011) investigated 16 fourth-year undergraduate Thai learners' interaction patterns and WTC in English in an online multi-player game. As the literature suggests, games create a non-threatening environment and thus encourage the use of the target language. They found that the virtual environment created a lower barrier than the classroom environment regarding learners' language production. In addition to the quantity and quality of language interaction in the target language, the game environment appeared to enhance participants' WTC in English because shy students in the classroom tended to easily express themselves during the game.

The research on L2 WTC is relatively rare in the Turkish context. Bektaş (2005) examined whether college EFL learners in the Turkish context have WTC and checked a WTC model

that explained the relations among social-psychological, linguistic and communication variables. Bektaş collected the data via questionnaires and interviews. Interrelations among learners' WTC in English, perceived communication competence, motivation, personality, anxiety, and attitude toward the international community were explored via a SEM analysis. The findings yielded that Turkish university learners had a moderate WTC. The participants were moderately motivated and had a positive attitude toward the international community with low communication anxiety. Furthermore, the international community and perceived linguistic self-confidence were found to be directly related to WTC.

The relationship between WTC and SL can be seen in Table 1. As the table shows, the variables of WTC (perceived competence in L2, L2 anxiety, security, excitement, responsibility), and the SL affordances might allow us to design a study in which SL is used as a tool to increase L2 WTC of EFL learners. The variables and affordances were first used for SL and augmented reality games by Shea (2014).

Table 1.

Characteristics of SL That Have an Important Impact on WTC

ANTECEDENT VARIABLES TO WTC	SECOND LIFE AFFORDANCES
Perceived Competence in L2	SL can increase perceived competence by providing additional practice in L2.
L2 Anxiety	SL can decrease L2 anxiety by providing a personal space for practice in L2.
Security	SL can provide a sense of security by providing a personal space for practice in L2.
Excitement	SL can provide an element of excitement.
Responsibility	SL with a real-life purpose can provide a sense of responsibility.

Adapted from Shea, A.M. (2014). *Student perceptions of a mobile augmented reality game and willingness to communicate in Japanese*. Unpublished Ph.D. Dissertation. Pepperdine University, California, USA.

2.3 Motivation

According to Dembo (2000), factors such as goals, beliefs, perceptions, and expectations give energy and direction to students' behaviors. Williams and Burden (2000) assert that motivation is necessary to make language learners to invest time and energy in learning and to sustain interest in order to achieve learning goals. However, it is very challenging to keep language learners motivated. When designing a language course or using a language tool, instructors should be aware of the learners' different interests and expectations.

2.3.1 Motivational Theories

Theories that conceptualize motivation fall into behavioral, cognitive, humanistic, and constructivist perspectives. According to Weegar and Pacis (2012) “[b]ehaviorism and constructivism continue to be relevant in today’s world of online education. Implications for online learning need to be determined so that successful practical applications can be identified and implemented to positively affect learning” (p. 17). Therefore, it would not be wrong to say that a study that utilizes online technologies might make use for both behaviorism and constructivism. The socio-cultural perspective of the motivation constitutes the main theoretical approach for this study. However, the summaries and the shortcomings of the behaviorist and cognitivist motivation theories are discussed and the rationale behind putting socio-cultural perspective at the core of the study.

2.3.1.1 Behavioral Approaches to Motivation

Behavioral perspectives frame motivation as the anticipation of reward. According to Skinner, stimulus-response relationship theory, which envisions a theory of behavioral reinforcement if a particular response is reinforced it becomes a habit (Brown, 2007). When someone is given correct stimuli, s/he can learn everything (Chastain, 1988). Behaviorists explain motivation using terms like, “reward” and “incentive” (Dörnyei, 1997, p.488). A “reward” refers to an attractive subject or event supplied as a result of a particular behavior, and “incentive” refers to an object or reward that encourages or discourages a behavior. It is also suggested that motivation is closely related to several external forces such as family, instructors, friends, educational qualifications and

occupational specifications (Brown, 2014). Therefore, rewards and incentives in the class should be analyzed to understand student motivation.

Any operation which increases the rate of response-reinforcement may cause the learners to develop habits (Chambers, 1999). For instance, if a student is continuously being rewarded by receiving praise in subject X but receives no recognition in subject Z, s/he will probably work for more success in subject X. In short, it can be said that the rewards in educational settings can increase motivation when the teacher use them carefully. Two limitations of the behaviorist approach are that it ignores the cognitive aspect of learning and focuses on observable facts (behaviors), but misses the reasons that motivate behavior.

2.3.1.2 Cognitivist Approaches to Motivation

The cognitive approach posits that no matter how the learners are rewarded or punished, they are the ones who decide their behavior by thinking (Schunk, 2000; Stipek, 1993). From a cognitivist perspective, motivation is regarded as a much more effective factor in an individuals' decision makings and also addresses to some needs or impulses that lay behind our decisions for which Ausubel (1968 as cited in Brown, 2014) also refers to as "exploration, manipulation, activity, stimulation, knowledge and ego enhancement" (p.169). The cognitivist approaches focus on the things people cannot observe, and some believe it developed as a reaction to the behaviorist views (Woolfalk, 1998). From a cognitivist perspective, a new interest took place through which "linguists acknowledged that a theory of language must address the fundamental issue of the learnability of language" (Hulstijn, 2007, p.192).

The cognitive view of motivation attempts to find the reasons for our decisions and the factors that affect them. It also studies the relation between goals, our attempts to achieve them, and the effect of guidance provided by teachers. Cognitivists also emphasize motivation as a factor for learners that are problems solvers and information seekers (Deubel, 2003). Learners have goals, schemas, expectations, they make plans and attribute their results to certain causes. The cognitivist approach "centers around individuals making decisions about their own actions as opposed to being at the mercy of external forces over which they have no control" (Williams & Burden, 2000, p. 119). In this view, the four common factors for success are ability, effort, luck and task difficulty. Chambers (1999)

found influencing learner motivation in his study. The cognitivist approach also emphasize intrinsic motivation by accepting learners as active and curious people who work hard because they want to understand what they are being taught.

2.3.3. Constructivist and Humanistic Approaches to Motivation

Constructivists discuss the concept of motivation with regard to personal choices (self-determination) and social interactions with others (Brown, 2014). They believe that motivation is derived both from an individual's interactions with others and from their self-determination (Dörnyei & Ushioda, 2011). From a constructivist perspective, meaningful learning occurs from learning by doing and the possibility of collaboration with others (Morchio & Munoz, 2013). This view places prime emphasis on social context and individual personal choices (Williams & Burden, 2000).

According to Woolfolk (1998) people are motivated by the need to fulfill their potential. If the teacher makes students feel accepted and respected as individuals, then the students become enthusiastic to learn for the sake of learning: are willing to take risks, are creative and become intrinsically motivated. Maslow (1968, 1970) researched human motivation and stated that humans are driven to obtain maximum potential and will always do so unless obstacles are placed in their way. He stresses the importance of satisfying psychological and emotional needs for better achievement and argued they need to be met step by step. Maslow's hierarchy of needs (1970) includes community, belonging, and social status. Wang (2005) states that failing to meet physical needs causes failure in learning. While a behavioristic approach posits that success depends on extrinsic motivation, intrinsic motivation is the vital factor for the humanistic approach.

Table 2.

Three Views of Motivation

Behavioral	Cognitive	Constructivist
Anticipation of reward	Driven by basic human needs: e.g., exploration, manipulation	Social context
Desire to receive positive reinforcement	Degree of effort expended	Community
External, individual forces in control	Internal, individual forces in control	Social Status Internal, interactive forces in control

A schematic presentation of three views of motivation (taken from Brown, 2014, p.160). Brown, H. D. (2014). *Principles of Language Learning and Teaching: A Course in Second Language Acquisition*. NY: Pearson Education.

Table 2 shows the three views of motivation. As the table shows, in behavioral perspective rewards and reinforcements play a crucial role. In cognitivist perspective, on the other hand, human needs and internal factors are at the center. Constructivist view of motivation deals with social context and interaction.

2.3.2 Motivation in Language Learning

Motivation is one of the most important aspects of second language acquisition (SLA). For instance, the success of L2 learning is highly affected by motivation (Baker & MacIntyre, 2000). It can be the driving force in initiating and sustaining learning (Baker & MacIntyre, 2000). Motivation directly affects learners' speaking activities in the target language. Dörnyei (1994, p. 275) also asserts that "the exact nature of the social and pragmatic dimensions of foreign language learning is always dependent on who learns what learns where." MacIntyre et al. (1998) argue that when a learner is presented with a task or a uncomfortable surrounding, motivation can be affected negatively.

Gardner (1985) distinguishes integrative and instrumental motivation. According to Gardner's (1985) model, motivation can be an internal characteristic of the individual or an external attribute created by extrinsic rewards. The hybrid perspective between the integrative and instrumental is that motivation can be an internal attribute that is a result of an external force. This view asserts that motivation must be a characteristic of the

individual and it cannot be created out of anything (MacIntyre, Baker, Clement, & Conrad, 2001). Dörnyei (2001) believes that learners with a high interest in learning languages and positive attitudes towards the target language are more likely to be involved in the learning process because they have higher levels of motivation. To many scholars, such as Dörnyei (1998) and Maslow (1970), intrinsic motivation is superior to extrinsic motivation. The most common distinction of motivation to become a teacher is the three-category distinction that includes intrinsic motives, extrinsic motives and altruistic motives (Richardson & Watt, 2005). Gardner and Lambert (1972) believe that when the motivational orientation is instrumental rather than integrative, lower success is likely to be experienced by foreign language learners. Integrative motivation should be considered a key factor in language learning. It is the desire to learn a language in order to communicate with people from another culture that speak that language.

2.4 Anxiety

General anxiety is “the subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the autonomic nervous system” (Horwitz, Horwitz, & Cope, 1986, p. 125). Some researchers examined anxiety from three perspectives: trait anxiety, state anxiety, and situation-specific anxiety (Brown, 2014; MacIntyre, & Gardner, 1991). While state anxiety is experienced in a particular event or situation, trait anxiety can be experienced in almost every event or situation. The trait perspective posits that anxiety is a personality trait that does not change from situation to situation. Contrary to trait anxiety, state anxiety is characterized by an individual’s temporary, urgent, and authentic reaction to a specific situation. State anxiety may vary in intensity (high and low) and duration (short-term and long-term). The situation-specific perspective is related to an individual’s clear emotional reaction to situations such as oral presentations, examinations, and classroom discussions. In Oxford’s (1999) classification, which asserts that anxiety is not always something negative, anxiety was described as both debilitating and facilitative. Facilitative anxiety intensifies the performance of a learner in certain tasks, while debilitating one negatively affects the learner’s performance.

2.4.1 Foreign Language Anxiety

MacIntyre and Gardner (1991) point out that the foreign language learning process includes certain developmental stages in which learners experience different levels of foreign language learning anxiety. Foreign Language Anxiety (FLA) is defined as “a distinct set of beliefs, perceptions, and feelings in response to foreign language learning in the classroom” (Horwitz et al., 1986, p. 130). MacIntyre (1999) regards FLA as the worry and negative emotional reaction aroused when learning or using a foreign language. MacIntyre and Gardner (1994) explain FLA as “the feeling of tension and apprehension specifically associated with second language learning contexts, including speaking, listening, and learning” (p. 284). Young (1991, p. 427) believes that FLA can be attributed to six factors: “1) personal and interpersonal anxieties; 2) learner beliefs about language learning; 3) instructor beliefs about language teaching; 4) instructor-learner interactions; 5) classroom procedures; and 6) language testing.” According to MacIntyre and Gardner (1994), FLA is related to unique and specific elements that occur in EFL classrooms as anxiety and poor performance.

Horwitz et al. (1986) highlight three components of FLA: communication apprehension (CA), test anxiety, and fear of negative evaluation. CA, is the anxious mental state experienced while communicating in the foreign language. CA is believed to occur due to the concern that communication in the target language will abruptly cease due to anxiety. CA also occurs in EFL settings as people have different topics and plenty of thoughts and have problems in communicating and understanding messages when they have limited language proficiency. Although, foreign language tests are useful for gathering reliable and objective data to detect progress in language performance, which then provides feedback to improve language learning (Zeidner, 1998), test anxiety occurs due to the fear of failure, and it is referred as the anxious state of mind when language skills are assessed by an authority figure (Horwitz et al., 1986). Fear of negative evaluation comes from any situation where a speaker is being judged, such as a job interview. Language learners’ fear of negative evaluation is a critical issue in EFL learning contexts (Aydin, 2008). It is the feeling of uneasiness that results from the possible comments of people on the performance of language learners (Horwitz et al., 1986).

2.4.2 Foreign Language Communication Anxiety

Language anxiety is primarily based on foreign language speaking and conversation, and researchers regard communication anxiety as one of the most important anxiety types of anxiety. Horwitz and Cope (1986) claim that learners have negative reactions to foreign language learning because they feel anxious and insufficient in their foreign language communicative abilities. According to Allen and Franklin (2002), English learners sometimes avoid taking part in learning environments as they feel fear or anxiety. Allen and Franklin note that this avoidance can make it more difficult for learners to engage in experiential learning activities that are important for improving language comprehension and production. Besides FLA, speaking has its own specific characteristics that make EFL learners feel anxious (Horwitz et al., 1986). This type of anxiety may cause negative physical outcomes such as dry mouth, sweating, weak knees, and nausea (Boyce, Alber-Morgan, & Riley, 2007). Communication anxiety is quite common among L2 learners. A L2 learner is likely to experience situation-specific anxiety while participating orally in class, speaking in public, or taking tests (Williams & Burden, 2000). Communication anxiety is important because when learners have limited knowledge, they have problems communicating and understanding messages in the foreign language.

In a study, Woodrow (2006) investigated the relationship between L2 anxiety and speaking performance. The study was conducted with 275 adult advanced level learners. Speaking anxiety was measured using a scale on L2 speaking anxiety and through oral assessments. The findings showed that there was a significant negative correlation between L2 speaking anxiety and oral performance. In other words, second language anxiety level was a strong predictor of participants' oral performance. In another study, Kim (2009) examined whether language anxiety and motivation of 57 Korean college students in a reading course differed from language anxiety and motivation in a conversation course. A survey was used to measure anxiety, and they analyzed data via multivariate analysis of covariance (MANCOVA). The study found that the context of language instruction has an impact on anxiety levels differed between the conversation and reading courses. An item analysis of the data was conducted to see whether the difference is a result of different classroom tasks and procedures. The results showed that higher anxiety in the conversation course occurred due to spontaneous speaking, speaking in front of a class, and fear of negative evaluation. This suggests that speaking increases anxiety.

2.5 Task-Based Language Teaching

The main purpose of CLT is to help learners use the target language communicatively. According to Krashen (1985), “acquisition only takes place when the learners are exposed to roughly-tuned input which students are able to comprehend and that learning is limited to a few simple portable rules.” Fotos and Ellis (1991) state that TBLT can provide the opportunities for the kind of interaction which has been suggested to promote acquisition.” Similarly, for Nunan (2004), TBLT represents a particular realization of CLT. Willis (1996) argues that TBLT aims to construct knowledge and develop language skills by completing tasks using the target language. This has led to some educators applying TBLT in SL, and it has attracted the attention of educators, SLA researchers, language teachers, and teacher trainers (Van den Branden, 2006). Some of these studies investigated the effects of TBLT conducted in VWs on oral performance and interactions (Lan, Kan, Hsiao, & Chang, 2013); intercultural communicative competence and willingness to communicate (Jauregi & Canto, 2012); learner participation and engagement (Deutschmann et al., 2009); motivation, perceptions of anxiety, and self-confidence (Kamali, 2012). Swain (1995) argued that the linguistic output of foreign language learners (i.e., speaking) while accomplishing a task is also important for acquiring the target language. In order to understand TBLT, it is necessary to understand the meanings of a “task.”

2.5.1 Definitions and the Types of a “Task”

A “task” has been defined in many ways that differ in scope and formulation (van den Branden, 2006; Long, 1985; Nation, 1990; Nunan, 2004; Willis, 1996). For example, Long (1985, p. 89) defines a task as “a piece of work undertaken for oneself or others, freely or for some reward.” Nunan (1989), on the other hand, claims that a task “should have a sense of completeness, being able to stand alone as a communicative act in its own right” (p. 6). Similarly, Klapper (2003, p.35) views tasks as “meaning-based activities closely related to learners’ actual communicative needs and with some real-world relationship, in which learners have to achieve a genuine outcome such as solving a problem, reaching a consensus, completing a puzzle or playing a game, and in which effective completion of the task is accorded priority.” Ellis (2003) also stresses meaning and involving real-world and cognitive processes. Littlewood (2004) claims that the difference between an activity

and a task is that tasks require learners to focus on meaning. Nunan (1989, p. 10), argues that a communicative task is “a piece of classroom work which involves learners in comprehending, manipulating, producing or interacting in the target language while their attention is principally focused on meaning rather than form.” The “task” is these definitions are used at the levels of goals, methodology, and assessment (van den Branden, 2006).

Researchers distinguish between target tasks and pedagogical tasks. Target tasks, according to Long (1985, p. 89), include things like making a reservation, borrowing a book, filling out a form, writing a check, typing a letter, and finding a street destination. These tasks simulate real-life issues and learners conduct these tasks outside of the classroom. This aligns well with the ultimate aim of language instruction: to enable learners to use the target language in real-life successfully. Pedagogical tasks, on the other hand, form the basis of the classroom activity.

Willis (1996) discusses six types of tasks: comparing, ordering, listing, problem-solving, sharing personal experiences, and creative tasks. “Listing” requires that learners brainstorm by asking questions looking up items in reference books. “Ordering and sorting” require that learners sequence items, actions, or events in a logical or chronological order. “Comparing” demands matching and finding similarities and differences. “Problem-solving” requires using intellectual and reasoning powers through tasks like puzzles, real-life problems, personal experience, completion tasks, and guessing games. “Sharing personal experiences” requires that students talk freely about their personal experiences, which makes the resulting interaction casual social conversation. “Creating” involves students in creative work including a combination of all the tasks mentioned here.

In another classification (Nation, 1990), tasks are divided into four categories: experience tasks, shared tasks, guided tasks, and independent tasks. Experience tasks “try to narrow the gap as much as possible by using or developing learner’s previous experience.” Shared tasks require learners to help each other. Guided tasks necessitate a focused guidance by focusing on the existing gap that is to be bridged. Independent tasks require that learners rely on their own resources.

Researchers divide TBLT into several stages. Willis (1996) offers a three-stage framework. The first stage is called a pre-task stage and includes assigning the task to learners and

giving detailed explanations. The goal of this stage is to make students aware of vocabulary items, grammar, phrases, and sentence patterns of the task. The second stage is the task-cycle stage, in which teachers assign the learners to groups. Here, the teacher is only a guide who passively assists learners in conducting tasks without active participation. In the language-focus stage, language-related problems that students and teachers experienced are discussed. According to Ellis (2006), the aim of this stage is to discuss learners' performance of the completed task, encourage reflections on the task performance, take notes, and correct any problems.

2.5.2 Theoretical Perspective for Task Based Language Instruction

Willis (1996) defines TBLT activities as specific tasks, checking-in at an airport or ordering a meal at a restaurant, designed to get learners to use the target language. Role-playing and simulations are the two commonly used TBLT approaches to achieve these tasks. In role-playing, members are assigned to groups to with specific roles to accomplish and objective (Brown, 2014). Oxford (2006) provided an overview of TBLT, noting its theoretical application to second language learning. In terms of anxiety issues for second language learners, Oxford (2006) asserts that the TBLT may provide a foundation for reducing learners' communication anxiety and improving their engagement in communication activities.

There are two different theoretical perspectives on task-based research: 1) psycholinguistic and 2) socio-cultural. In the former, tasks are viewed as work plans that predict certain kinds of language use. The other one, on the other hand, views tasks as a venue for co-constructing knowledge by participants. This study adopts both of these perspectives. Today, the characteristics of TBLT (role-playing and simulations) can be easily supported using VW technology. VWs allow simulations and roleplaying which useful in reducing anxiety and improving language competence of learners (Ranalli, 2008, p. 442). Simulations, games, and roleplaying have been used in a classroom setting and there is a large and growing body of research on the benefits of games and simulations in education (Dickey, 2010; Inman et al., 2010; Paul, 2008; Schiller, 2002). Inman, Wright, and Hartman (2010, p. 53) believe that SL "has the capacity to facilitate role-play activities that are equally effective as role-play activities in the real world." According to Nunan (1991), a task is a piece of meaning-focused work which involves learners in comprehending,

manipulating, producing and interacting in the target language. He (1991) outlines five characteristics of a task-based approach to language learning:

1. An emphasis on learning to communicate through interaction in the target language.
2. The introduction of authentic texts (teaching materials) into the learning situation.
3. The provision of opportunities for learners to focus not only on language but also on the learning process itself.
4. An enhancement of the learner's own personal experiences as important contributing elements to classroom learning.
5. An attempt to link classroom language learning with language activation outside the classroom (p. 279).

A framework for analyzing communicative tasks by Nunan (1989, p. 11) includes “goals, input, activities, teacher role, student role, and settings.” Nunan (1989) depicts the analysis of various elements of a task. He believes that while implementing TBLT, the specification of all these components is needed. “Activities” specify what learners will actually perform with the input. “Roles” are the social and interpersonal relationships between learners and teachers. “Settings” are the classroom arrangements, like pair work or group work that impact task interaction.

SL has attracted the attention of educators, SLA researchers, language teachers, and teacher trainers. Some of these studies used VWs and investigated the effects of TBLT on oral performance and interactions (Lan et al., 2013), intercultural communicative competence and willingness to communicate (Jauregi & Canto, 2012), learner participation and engagement (Deutschmann et al., 2009), motivation, perceptions of anxiety, and self-confidence (Kamalı, 2012). Jauregi and Canto (2012) investigated students' interaction patterns in intercultural communication tasks in Adobe Connect (a video-web communication platform), SL, and a traditional class. The findings showed that SL allowed learners to perform real-life tasks and interact with native speakers. They also found that the experimental group's WTC and perceived competence increased while anxiety levels decreased.

A case study, conducted by Kamalı (2012), examined the experiences and perceptions of preparatory language learners on motivation, self-confidence, and anxiety. Task based-language learning activities (i.e., work, travel, farewell party) were used with the students. The learners were given different roles and conducted speaking activities with native speakers, peers, and instructors in SL. The findings suggested that communicating with native speakers to accomplish task-based activities in SL caused students to gain motivation and self-confidence. Moreover, participants stated that they had overcome their

speaking anxiety. This study is inspiring for the potential effectiveness of using VWs in language education in Turkey.

2.6 Second Language Teacher Education

In today's knowledge-driven society, in order to achieve higher levels of learning among language learners, foreign language teachers are expected to keep up to date with the recent developments in the field and to constantly review and evaluate their teaching skills. In Turkey, after the requirements of a four-year ELT education program, graduates enter the profession of teaching. Even in the beginning of their careers, language teachers have a set of beliefs, philosophies, and expectations they bring to any teaching situation (Carter & Elseth, 2009). The literature shows that language teachers' decisions to use different materials, activities, or methodologies are shaped by their beliefs and their experiences in the classroom and as student teachers. Özmen (2012) claims that ST's beliefs are affected by second language teacher education programs. According to Carter and Elseth (2009), experiences shape language instructors' teaching and when they are introduced to new tools or methods, they feel uneasy. Teachers should be confident about using technological tools and should learn the benefits of new tools (Hong, 2010).

2.6.1 Theoretical Perspectives in Second Language Teacher Education

With the widespread use of educational technologies in language courses, the theoretical balance shifted from behaviorism to constructivism. It is common in both research and practice that language teachers tend to make use of the tenets of these two theories in order to be able to meet the learning styles for all students. According to Weegar and Pacis (2012) "[b]ehaviorism and constructivism continue to be relevant in today's world of online education. Implications for online learning need to be determined so that successful practical applications can be identified and implemented to positively affect learning" (p. 17). Second language teacher education is now influenced by sociocultural theory (Lantolf, 2000). This study subscribes to the socio-cultural perspective of language teacher education. The rationale behind putting the socio-cultural perspective at the core of the

study is discussed below, along with a summary of shortcomings of the behaviorist and humanistic theories.

2.6.1.1 Behavioristic Perspective in Second Language Teacher Education

Taking its roots from positivism, behavioristic approach to the psychology of teacher education dates back to ideas of theorists who tried to explain all of the human learning through *conditioning*. Leahey (2000, p. 686) believes that “[b]ehaviorism was, and is, a moment primarily in American psychology that rejected consciousness as psychology’s subject matter and replaced it with behavior.” The Russian psychologist Pavlov and Watson are the famous figures in behavioristic view. The founder of modern behaviorism, on the other hand, is considered to be Skinner (Williams & Burden, 2000). Introducing the terms ‘operants’, ‘reinforcement,’ ‘operant conditioning,’ ‘rewards,’ and ‘punishment,’ Skinner (1957) claims that learning is a result of environmental factors rather than genetic factors, which concludes that behaviors of humans could be shaped within certain frames. He (as cited in Williams & Burden, 2000, pp. 9-10), claims that:

- teachers should precisely make clear what is to be taught;
- tasks should be broken down into small, sequential steps;
- students should be encouraged to work at their own pace by means of individualized learning programmes;
- learning should be ‘programmed’ by incorporating the above procedures and providing immediate positive reinforcement based as nearly as possible on 100 per cent success.

However, the theory is criticized on methodological, theoretical, and ideological grounds (Calderhead, 1987). The research studies conducted with the behaviorist paradigm did not reveal concrete and useful knowledge on specific teaching and could not be applied in different teaching contexts. Hence, there was a shift to the research of mental processes involved in learning (Williams & Burden, 2000). Webb (2007, p. 1086) asserted that “the behaviorism of Watson and Skinner is based on a positivistic approach to science, that is, a reductionist view in which all that can be addressed is the relation between sensory stimuli and the unique corresponding response.” In other words, these theorists interested only in behavioral responses rather than considering what might occur in learners’ minds. Similarly, Roberts (1998, pp. 14-17) criticize the behavioristic theory as;

- it ignores individual differences in teachers' beliefs, values and background knowledge,
- it is inflexible,
- it centers around modeled behaviors and models cannot be transferred to culturally different settings,
- it excludes mental states
- it is shaped behavior rarely transfers to conditions different from those of the original training,
- the concept of shaping a behavior contradicts the human right to self-determination and self-expression.

2.6.1.2 Humanistic Perspective in Second Language Teacher Education

The humanistic theory emphasizes the inner world of the learner and uniqueness of individuals (Maslow, 1970; 1980; Williams & Burden, 2000). According to this perspective, developing a potential to maintain and strengthen organism is a general internal tendency of human beings (Jingna, 2012). This requires seeing the receiver as a human being before considering someone as a learner. The humanistic theory has implications for teacher education as well as counseling and teaching. Counseling has an important place in humanistic psychology because Carl Rogers, who is a pioneer humanist school of educational school with Erikson and Maslow, is seen as the founder of counseling psychology (Williams & Burden, 2000). According to the tenets of humanism, language teachers should:

- create a sense of belonging;
- make the subject relevant to the teacher;
- involve the whole person;
- encourage a knowledge of self;
- develop persona identity;
- encourage self-esteem;
- involve the feelings and emotions;
- minimize criticism;
- encourage creativity;
- develop a knowledge of the process of learning;
- encourage self-initiation;
- allow for choice;
- encourage self-evaluation (Williams & Burden, 2000, p. 38).

When the messages of humanism for language teachers are explored, it can be concluded that in this view, learning is seen as an internally driven process rather than being externally controlled. Therefore, a significant importance is attached to the recognition of the need and autonomy (Benson, 2001) and consideration of the affective dimension of

personal change and language teachers' need for support (Khatip, Sarem & Hamidi, 2013; Roberts, 1998). Holec (1981) argues that the "ability to take charge of one's own learning" is not necessarily inborn, on the contrary, someone need to acquire it by natural means or by formal learning. Learner autonomy is not only about out of class learning (Benson, 2001); it is also exercised in the classroom environment (Dam, 1995). This situation makes it evident that language teachers have a lot to do with fostering learners' autonomy. In language teacher training environments, the exercise of learner autonomy has a lot to do with future teachers' learner autonomy and their students' learner autonomy. Fostering learner autonomy should be an integral part of modern language teaching (Tschirhart & Rigler, 2009), that is why one of the key goals of higher education should be fostering learners' autonomy (Baume, 1994). According to Smith (2003), preparing teachers to promote learner autonomy especially in language teacher education programs is of paramount importance.

Critics of the humanistic theory argue that it disregards the insufficiency of inner resources. However, the constructive feedback and social aspects of teacher learning cannot be separated from teacher education. Therefore, Bell and Gilbert (1996l) suggest that language teacher development cannot be considered without social and occupational contexts as well as sharing and exchanging between personal theories.

2.6.1.3 Socio-cultural Perspective in Second Language Teacher Education

Based on the work carried out by Vygotsky, Bruner, and Feuerstein, social constructivism sees the individual as born into a social world. Therefore, social interactions with other people are the main source of learning. Vygotsky (1978) argues that learning occurs on a social level and then on an individual level by emphasizing the importance of social influence and experience on human development. He described learning not only a cognitive issue but also a social process. Constructivism provides a fruitful framework for use to understand individual concept change, however social perspective on teachers' work should be considered as 'learners make their own sense of the world but they do so within a social context and through social interactions' (Williams & Burden, 2000, p. 28).

One of the implications of Vygotsky's theory is that learners "development can be understood only in light of the cultural practices and circumstances of their communities-which also change" (Rogoff, 2003, pp. 3-4). Putting this view into the center, Johnson (2006, p. 13) defines teacher education as a "dynamic process of reconstructing and transforming practices to be responsive to both individual and local needs." According to Richards (2008), "teacher learning is not viewed as translating knowledge and theories into practice but as constructing new knowledge and theory through participating in specific social contexts and engaging in particular types of activities and processes (p. 164).

To explain the main reason for putting socio-cultural perspective at the core of this study, this question might be a good one to start with: How can language teachers add to their professional background through action in a social context? The student teachers of this study have conducted real-life tasks in a virtual world that provides a social context. As Williams and Burden (2000) inform "social interactionist theories can provide us with a rich source of ideas which can inform our language teaching practices." In a similar vein, it can be claimed that the social dimension of the VWs presents teachers with real-world contexts in which their immediate or long-term speaking-related problems are resolved. Schön (1983, p. 333) believes that each learner has to be treated as an individual:

A reflective teacher needs a kind of educational technology which does more than extend her capacity to administer drill and practice. Most interesting to her is an educational technology which helps students to become aware of their own intuitive understandings, to fall into cognitive confusions and explore new directions of understanding and action.

2.6.2 The 21st-Century Teacher

Although they seem as new skills, 21st-century skills are not newly introduced. As Rotherham and Willingham (2009) assert, throughout history, many of these skills such as critical thinking and problem-solving have been a part of human progress. They believe that having such skills is the way to collective and individual success.

Today's learners are far more computer literate than most of their teachers (Prensky, 2001). Richardson (2006) asserts that "learners retrieve information digitally because it is faster, easier to access, and more current. There are no restrictions on what one may make available on the Web" (Green, Brown, & Robinson, 2008, p. 31). Today's language

learners, “digital natives” have easy access to digital technology (Prensky, 2001). Therefore, Prensky (2010) argues that 21st-century teachers should be less resistant to modern technologies. This is especially the case with activities linked to VWs and social networking. One way of succeeding in this new digital age is for STs to be competent users of developing technologies (Lemke, 2002, p. i). Technology should allow interaction between the teacher and the learner. This interaction allows teachers to integrate VWs into their teaching. As Prensky (2004) pointed out, most teachers would be considered digital immigrants to the latest technologies. To teach today’s digital natives, teachers must understand the variety of programs that students are currently using in order to partner with them effectively for meaningful and relevant instruction.

Although digital natives vary in their technology competencies and degree of use (Margaryan, Littlejohn, & Vojt, 2011), the use of the internet is moving from ready-made materials to user-created content. 21st-century learning theories attach importance to learning “authentically” (Mims, 2003) as well as providing opportunities to develop learners’ creative and critical thinking skills through problem-based learning and constructivist inquiry. Therefore, utilizing VWs in teacher training provides a venue through which the pedagogue-in-training can experience not only TBLT instructional experiences but also the virtual environments inhabited by today’s language learners (Cheong, 2010). Overall, VWs have the potential to be an important educational platform in the 21st century. By using these tools, EFL teachers can establish a language learning context in which learners are assisted with practicing the target language by interacting with each other (Cheng, Zhan, & Tsai, 2010). Furthermore, developing language resources, negotiating meaning, and participating in meaningful intrapersonal or interpersonal exchange can be conducted via these tools.

CHAPTER III

METHODOLOGY

3.1 Research Design

In this study, a mixed-method design was employed. The nature of mixed-method research design requires the use of both qualitative and quantitative data collection instruments. According to Punch (2009), mixing these methods enables researchers to compensate for their weaknesses. Punch (2009) also argues that it would be too hard to find out everything a researcher wants to know by making use of only one approach. We can only maximize the scope, depth, and power of research by combining the quantitative and qualitative methods. Mixing methods can also improve external validity by supplementing the findings of qualitative research with a quantitative one (Dörnyei, 2007). Another advantage of the mixed-methods approach is the ability of triangulation, which is a means of increasing both the validity and reliability of a research study (Denzin, 1978).

The main purpose of this study was to explore the effectiveness of using a VW on the WTC, motivation, and communication anxiety of the student teachers of English. ASSURE Model (Heinich, Molenda, Russel, & Smaldino, 1999) served as the main instructional model for the development of the material. The model consists of six parts: analyze learners, state objectives, select instructional methods, media and materials, utilize media and materials, require learner participation, and evaluate and revise. Ten real-life tasks were conducted as role-plays in both the VW and classroom environment. Role-play activities were conducted with groups of four to five by the experimental group. The

control group student teachers conducted the tasks in the classroom as role-plays and drama. The tasks were generally conducted as role-plays because using role-playing techniques with both control and experimental group students participated actively in learning activities such as expressing their feelings, ideas, and arguments. Role play as a performative element has been found to foster experiential learning (Wertsch, 1985).

The research questions of the study are:

1. Does the use of a virtual world affect EFL learners' Willingness to Communicate in English? If so, what characteristics of the virtual world do participants mention as an influence on their WTC in English?
2. Does the use of a virtual world affect EFL learners' motivation? If so, what characteristics of the virtual world do participants mention as an influence on their motivation in English?
3. Does the use of a virtual world affect EFL learners' anxiety? If so, what characteristics of the virtual world do participants mention as an influence on their communication anxiety in English?
4. What are the views of EFL learners about using a virtual world for language learning?

3.2 Participants

The study was carried out with the first-year EFL student teachers at Necmettin Erbakan University, English Language Teacher Education Program. The participants enrolled in a face-to-face Oral Communication II course at the second semester of the first year at the university. There were 118 student teachers enrolled in this course offered during the spring semester of 2016-2017 academic year, and they were attending/registered to A and B classes by the faculty administration in advance. After a random selection of classes as control and experimental groups, the experimental group was introduced with SL. Then, the STs were asked to take part in this study voluntarily. Fifty-eight STs were initially enrolled in Oral Communication II course. Initially, 40 of them consented to participate in the experiment. However, after withdrawal of some participants and excluding some other, 30 STs were included in the experimental group. This was because three participants dropped the course mid-semester. Two participants were enrolled to the second year of the

program, so they were excluded from the analysis. Five participants, who were in the same group, completed the pre and post questionnaires and attended interviews, but had excessive technical difficulties, initially with inadequate Internet access, and then with audio failure resulting problems in conducting tasks in SL, especially in most of the tasks. Therefore, they were excluded as well. In the control group, out of 60 enrolled STs, 35 of them completed every necessary data collection tools and conducted all ten tasks in the classroom. Overall, 65 student teachers (30 in the experimental group and 35 in control the group) took part in the study. Hence, the participants were selected using convenience sampling.

STs' culture of learning and computer skills were investigated via a background questionnaire and introspective interviews. It can be concluded from this investigation that the participants had no previous experience in 3D virtual worlds. It was also found that most of the STs had no knowledge of VWs and none of them had used SL before this experiment. All of the participants had a personal computer and described themselves as competent computer users. The subjects spent an average of 15 hours a week on the Internet and spent an average of over 30 hours a week on computers.

3.3 The Research Context

Teacher education in Turkey is regulated by Council of Higher Education (YÖK) and implemented by educational faculties. There are two major foreign language education programs in Turkey. The first one is English Language Teaching Departments of educational faculties. These programs are at the undergraduate level. The degree programs offered by the Faculties of Education are four years of duration. Secondly, ELT certificate programs for graduate or ongoing students of English Linguistics, British Language and Literature, or American Culture and Literature departments are one other way of becoming English teachers. The one-year certificate programs are carried out by education faculties, and students take pedagogical courses and practicum in these programs. In order to enter foreign language teaching programs, students need to take a national university entrance exam and a Foreign Language Test. Reading, vocabulary, and grammar questions are asked in this test. In contrast, there is no assessment done for listening, writing, and speaking skills.

The present study was conducted at the English Language Teaching (ELT) program of Necmettin Erbakan University. The program offers a four-year undergraduate study in English Language Teacher Education. Following the concurrent national model, STs in this program learn basic language skills such as lexicology, contextual grammar, reading, listening, speaking and writing in the first year. They also take pedagogical courses such as introduction to education and educational psychology. From the third semester on, they begin to take field-specific content courses and pedagogical content courses such as second language acquisition, linguistics, teaching language skills, teaching English to young learners, language testing, classroom management, material evaluation and preparation, and testing and evaluation. In the last year of the program, STs are required to take practicum. The first phase of the practicum includes “school experience” in which student teachers observe English classes at state schools. In the second phase of the practicum, they are actively involved in teaching practice.

Candidates enrolled in the first year of the ELT program are required to take nine courses in the second semester in which the research was conducted. These are Turkish 2: Oral Expression, Contextual Grammar II, Oral Communication Skills II, Listening & Pronunciation II, Advanced Reading & Writing Skills II, Lexicology, Educational Psychology, Computer II, and Social Issues and Healthy Life. The study was conducted during a 14-week course Oral Communication Skills II in the 2016-2017 Spring semester. The course was offered to first-year undergraduate students from English Language Teaching Program. The focus of the course lay primarily in speaking and communication skills practice. There is a three-hour class time in every week for 14 weeks. The course schedule is displayed in table 3, and task syllabi are given in Appendix 9.

Table 3.

Class Schedule

Week 1	Introducing syllabus and regulations
Week 2	SL Training, Introducing syllabus and regulations
Week 3	SL Training, Introducing syllabus and regulations
Week 4	Task 1: Orientation & Greetings
Week 5	Task 2: Adventure & Travelling
Week 6	Task 3: Food
Week 7	Task 4: Jobs
Week 8	Task 5: Shopping/Clothes/Gifts
Week 9	Task 6: Sports & Games
Week 10	No Class (Official Holiday)
Week 11	Task 7: Health
Week 12	Task 8: Art& Culture
Week 13	Task 9: Music
Week 14	Task 10: Cinema & Theatre

3.4 Data Collection Techniques

This study utilized both qualitative and quantitative data collection tools. The quantitative data were collected through questionnaires on WTC, motivation, and communication anxiety. As for the qualitative part, introspective interviews, focus-group interviews, semi-structured interviews, weekly evaluation forms and observation technique were utilized. Furthermore, a background survey was conducted to explore participants' demographic information.

3.4.1 Background Survey

A background survey (Appendix 1) was conducted at the first meeting of the class. In this survey, the participants answered questions about their demographic information such as

their age, educational background, previous experience with English learning, computer use and previous experiences with SL and any other similar environments.

3.4.2 Questionnaires

The quantitative part of this study included questionnaires on WTC, motivation, and communication anxiety. All the questionnaires were conducted in English in the classroom, and the participants were allowed to ask questions about items in the questionnaire. These three questionnaires were administered twice as a pre and post test before and after the experiment.

The WTC questionnaire (Appendix 2), developed by McCroskey (1992), includes the communication contexts like public speaking, talking in meetings, group discussions, and interpersonal conversations, and receiver types like strangers, acquaintances, and friends. The participants were asked to choose frequencies ranging from 0% (I never communicate) to 100% (I always communicate). The WTC Questionnaire was implemented to second and third year EFL learners before the study. The reliability coefficient of the questionnaire was found .89. The overall reliability of the scale is considered as acceptable by Fraenkel & Wallen (2003, p. 168), and Büyüköztürk (2011), who state that reliability should be at least .70 and preferably higher.

The motivation of the participants was measured through an adaptation of a questionnaire (Appendix 3) developed by Gardner (2004) entitled as Attitude/Motivation Test Battery (AMTB) in terms of the high-level questionnaire of reliability and validity that was acknowledged based on several earlier research studies. There were 18 positively-formed and three negatively-formed statements, which were conducted through 5-point Likert scale ranging from strongly disagree to strongly agree in order to have an understanding of the participants' views regarding their motivation level in English. The reliability coefficient of the questionnaire was found .84, which is acceptable.

Finally, communication anxiety was measured via a questionnaire (Appendix 4) that was used by Yashima (2002) and includes the same contexts of WTC scale. This questionnaire requires participants to choose the percentage of anxiety in the communication contexts like public speaking, talking in meetings, group discussions, and interpersonal

conversations, and receiver types like strangers, acquaintances, and friends. The participants were asked to choose a number between 0 (I never felt anxious while communicating) and 100 (I always feel anxious while communicating). The communication anxiety questionnaire was implemented to second and third-year EFL STs before the study. The reliability coefficient of the questionnaire was found .86, which is acceptable.

3.4.3 Interviews

This study utilized introspective, focus-group, and semi-structured interviews that were conducted in Turkish. Introspective interviews allowed the researchers to gather rich and detailed information about the participants as well. Focus-group interviews helped to improve the quality of the tasks, and semi-structured interviews helped to explore the opinions of the participants better.

3.4.3.1 Introspective Interviews

Introspective interviews were conducted to gather more details about participants' WTC, motivation, and communication anxiety. Thirty experimental group participants were asked to participate in retrospective interviews intended to shed light on their answers to the questionnaires. In retrospection, the respondents "are expected to verbalize their thoughts and feelings after they have performed a task or mental operation" (Dörnyei, 2007, p. 148). In the first stage of the interview, they were given information about their answers to the questions in the questionnaires. The introspection results suggest that participants needed to add details to their answers in the questionnaires. Furthermore, these interviews helped to validate the data collected via the interviews. The present study aims to demonstrate that the introspective interviews are useful in three ways. First, it is expected that the introspective interviews allow eliciting feelings and ideas of the participants in a more detailed way. Second, it can be possible to gain more insights about participants' perceptions of WTC, motivation, and communication anxiety. Finally, it is ensured that the participants carefully read the items in the questionnaires.

3.4.3.2 Focus-Group Interviews

Focus group interviews were conducted with different groups of 4-5 participants. As Tomal (2010, pp. 50-51) explains: “a focus group generally consists of about five to ten people who are interviewed in a comfortable, nonthreatening setting.” The interviewer asked participants to share their feelings and opinions about conducting real-life tasks in SL. Although Tomal (2010) believes that it is not always necessary to ask specific questions in focus group interviews, the interviewees were asked to explain the good and difficult parts of the sub-tasks. They were also asked about their general feelings towards using SL for each task. Their perceptions about the difficult things/disadvantages to doing each task in SL and a better use of this task in SL were asked, and task syllabi were refined accordingly. Hence, ten focus group interviews were conducted. The interviews were also in a stimulated recall format as the interviewer and the participants watched Bandicam and OBS recordings and the weekly evaluation forms. Another aim of conducting focus-group interviews was to pilot the tasks before using them. The sample questions of focus group interview can be found in Appendix 5. Student teachers’ responses were recorded using an audio recorder.

3.4.3.3 Semi-Structured Interviews

The researcher conducted semi-structured interviews with all experimental group STs. In addition to focus group interviews, individual interviews were conducted because “conducting an interview with one person can be valuable in drawing out true feelings that might not be obtained in a group setting” (Tomal, 2010, p. 51). According to Nunan (1994), the interviewee has a degree of power and control over the course of the interview. Also, it allows for the elaboration of responses and subsidiary questions to be asked. Moreover, interviews assist understanding experiences and reconstruct events in which the researcher did not participate (Rubin & Rubin, 2012).

Since the researcher was not able to observe the participants every time they took part in activities in the VW, the purpose of the interview at the end of the study was to identify additional experiences that the participants took part in during the time of research that was not observed by the researcher. The ending interview also provided information about how the participants viewed their experiences in the VW of SL.

All the interviews were conducted in Turkish in the researcher's office just after the intervention ended. Before the interview started, the purpose and nature of the interviews were explained to the participants. Then, 17 questions (Appendix 6) were asked. The interviews were recorded via an audio recorder. In order to elicit richer qualitative data, the interviewer also asked questions about the introspective interview responses and some points in the weekly evaluation forms.

3.4.4 Observations

During each real-life task in SL, notes were taken by the researcher about the interaction of learners with the environment, comments made by other users, and the procedures of each task. While the STs were doing the tasks, the researcher observed some of the groups in the experimental group by keeping a research journal. The researchers kept field notes during the tasks that were conducted in SL to reflect on the practices, behaviors, and feelings of the participants. The notes included descriptive information such as interactions and activities that were carried out in SL. Time-based notes (at regular intervals and during the breaks of the tasks) were taken. In addition, the notes also provided the researcher with the assistance to increase the task quality and to decrease technical problems for the upcoming tasks. Moreover, it helped to find some of the main technical problems, and their solutions occurred during the tasks. The process in which participants settled down with the task and became familiar with SL environment as time went by was easily tracked via observation. These notes served as a record of the process and helped to understand the learners' views. More specifically, these notes helped to enhance the validity of the study by providing a log of activities, conversations, and overall observations to refer back to when all collected data were analyzed. According to Hatch (2002) "the goal of observation is to understand the culture, setting or social phenomenon being studied from the perspectives of the participants" (p. 72). Through observations, the researcher was able to identify items that the participants may have taken for granted or assumed to be experiences of everyone involved in the phenomenon. This information included events, activities, avatars involved, as well as the researcher's own reactions. In the virtual world, the researcher offered friendship to the participants which allowed the researcher to see when the participants were taking part in the virtual world. This also

provided the researcher with a means to contact the participants in order to complete observations. During the observations informal interviews also took place. This included the researcher asking questions about what the participants were doing and what their experiences had been. Since these were informal interviews questions were not developed in advance. The information collected during these informal interviews provided the researcher with information about how the participants viewed their experiences.

According to Borg (2001), an observation form is “a form of reflective writing which researchers engage in during a project and through which they document their personal experience of the research project” (p. 157). As it allows recording “their impressions, questions, emerging themes, decision making, or any other issues that arise” (Duff, 2008, p. 142); it becomes a part of the analysis and interpretation process (Duff, 2008). Observation notes are important as they help in reminding researcher the reason of being there (Patton, 2014). According to Richards and Farrell (2005), taking field notes is advantageous in that they are a flexible way of observing as it allows freedom in catching relatively significant and relevant information.

3.4.5 Weekly Evaluation Forms

Beginning from the first task of the study, experimental group participants were asked to write their comments on a piece of paper provided by the researcher. These Weekly Evaluation Forms (Appendix 7) were distributed at the end of each SL sessions with the purpose of helping student teachers to reflect on their work weekly throughout the study. These forms were collected after each task. The forms provided the researcher and the participants with the ease to trace the course of the experiment and become aware of the changes which might have happened during the study. The forms acted as primary sources in eliciting the increase in participants’ WTC, motivation and communication anxiety. According to Schön (1983), reflection is an effort to develop critical thinking and ‘reflective practice’ should be integrated into every aspect of a teacher education program. Participants’ weekly evaluation forms were coded qualitatively to develop common themes concerning the research questions of the study. Table four summarise the type, implementation time, and the purpose of the data collection instruments used in this study.

Table 4.

The Type, Implementation Time and the Purpose of Data Collection Instruments

Instrument Number	Data Collection Instrument	Data Collection Instrument Type	Implementation Time	Addressed Research Question
1	WTC Questionnaire	Quantitative	Before and after the Experiment	RQ1
2	Motivation Questionnaire	Quantitative	Before and after the Experiment	RQ2
3	Anxiety Questionnaire	Quantitative	Before and after the Experiment	RQ3
4	Focus-group Interviews	Qualitative	After each task	Pilot Study, RQ4
5	Semi-structured Interviews	Qualitative	Before and after the treatment	RQ1, RQ2, RQ3, RQ4
6	Weekly Evaluation Form	Qualitative	During the study	RQ1, RQ2, RQ3, RQ4
7	Researcher's Field Notes (Observation)	Qualitative	During the study	RQ1, RQ2, RQ3, RQ4

3.4 Reliability

Reliability and validity are the two most important criteria in scientific research. This part provides information regarding the reliability issues of the data collection tools used in the current research. This study utilized both quantitative and qualitative data collection tools. Quantitative research focuses on to what extent a phenomenon exists. Qualitative research is more concerned with the meaning and interpretation of those events. In other words, qualitative inquiry investigates the characteristics of an event or phenomena.

Fraenkel and Wallen (2000, p.176) define reliability of an instrument as “the consistency of the scores obtained-how consistent they are for each individual from one administration of an instrument to another and one set of items to another.” In order to establish the internal consistency reliability of the instrument, a pilot study was conducted. The WTC and Communication Anxiety Questionnaires were implemented to second and third year EFL student teachers before the study. The Motivation Questionnaire was administered to

first and third-year STs who did not participate in the study. The reliability coefficients of the study are illustrated in table 5.

Table 5.

Internal Consistency Reliability (Cronbach Alpha Coefficient) for the Questionnaires

Questionnaire	Alpha Reliability	n		
		Valid	Excluded	Total
Willingness to Communicate	.89	134	4	138
Motivation	.84	131	21	152
Communication Anxiety	.86	136	2	138

As the table 5 shows the reliability coefficient of the WTC questionnaire was found .89. The internal consistency reliability for the the questionnaires motivation and communication anxiety was found to be .84 and .86 respectively. Therefore, the overall reliability of the scale is considered as acceptable by Fraenkel & Wallen (2003, p. 168), and Büyüköztürk (2011), who state that reliability should be at least .70 and preferably higher.

3.5 Validity

Validity refers to the “goodness” or “soundness” of a study (Miller, 2008). Validity is primarily concerned with the objectives of the study. Since qualitative research does not lend itself to the generalizability or the external validity, validity determines whether the results are accurate from the researcher’s, participants’ or the readers’ perspectives. (Creswell & Miller, 2000). Cresswell (2012) proposes several strategies for validating qualitative studies, including triangulation, controlling the participants, describing the results in a detailed way, and field experience. Morse, Barrett, Mayan, Olson, and Spiers (2002, p. 5) suggest that “without rigor, research is worthless, becomes fiction, and loses its utility. Therefore, rigorous data collection methods were utilized in this research.

Triangulation (Janesick, 2012; Patton, 2014; Stake, 2006) was achieved through the combination of questionnaires, classroom observations, weekly evaluation forms, introspective, focus group and semi-structured interviews. Consequently, all these data captured different aspects of the same case, and various findings were both supported or contradicted (Patton, 2014). There are two basic questions need to be asked to refer to the validity of a qualitative research. One-to-one correspondence between the events or phenomena that were interpreted and the real case is crucial in qualitative studies. In other words, whether our interpretation of interviews reflect the reality needs to be checked. In order to ensure this, member checking was conducted. In addition, member checking ensured that the data were accurate (Stake, 2006). Patton (2014, p. 560) states that “researchers and evaluators learn a great deal about the accuracy, completeness, fairness, and perceived validity of their data analysis by having the people described in that analysis react to what is described and concluded”. Following Janesick’s (2012) suggestion, member checking was conducted both during and after the data collection.

In this study, internal validity has been ensured via “clarification of the researcher bias”, “neutrality in the interviews”, “presenting opposite views and perspectives”, and “authorization of release.” The “clarification of the researcher bias” in research studies is very important. In order to clarify the bias, the researcher brings to the study by self-reflection, being open and honest’ (Creswell, 2009, p. 196) was sustained by the researcher. The researcher acknowledges the potential bias about the study. According to Creswell and Miller (2000, p. 127), this process is crucial for the researchers as acknowledging the beliefs and biases beforehand “allow readers to understand their positions, and then to bracket or suspend those researcher biases as the study proceeds.” As for the “neutrality in the interviews,” a neutral attitude throughout the interviews has been adopted. In order to understand the potential effects of SL on the dependent variables of the study, the neutral attitude throughout the interviews and the neutrality of the interview questions will be essential to sustain validity. In a semi-structured interview, the interviewers have a general idea of the content and the outcome of the interview. However, the participants do not have a checklist to complete. So, the “neutrality in the interviews” has been achieved. In qualitative research, it is important to “present negative or discrepant information that runs counter to the themes” (Creswell, 2009, p. 196). Although students are becoming more and more digital natives, different technology perceptions are

unavoidable. Accordingly, different perspectives will be presented as much as the data reveal them. To avoid publication bias, every view coming from the participants' weekly evaluation forms and semi-structured interviews about the tasks and the 3D multi-user virtual environment SL have been subjected to qualitative analysis. Finally, "authorization release" was supplied by taking the approvals of the participants about the interviews, the aim and the plan of the study, data collection methods. In the informed consent forms, they have been ensured that their identities will not be revealed. Furthermore, they were informed that they could end their participation in any phase of the study.

3.6 Tasks

All the real-life tasks were designed to help STs to use the language for effective communication. The tasks were adopted from previous studies (Blake, 2000; Chen, 2016; Jee, 2010; Kamali, 2012; Peterson, 2006; Smith, 2003), and participants and experts' opinions were asked to add and omit tasks. At first 30 tasks were determined. These were:

1. Orientation,
2. First Day of the School,
3. Adventure,
4. Travelling,
5. Planning a Holiday,
6. Organizing a Tour,
7. Checking in at an Airport,
8. Transportation,
9. Dining at a Restaurant (Foods),
10. Art and Culture: Visiting an Art Gallery,
11. Leisure Time Activities,
12. Professional Business Meeting (Jobs),
13. Career Preparation,
14. Making a TV program,
15. Cinema,
16. Play different roles in a brief script,
17. Music,

18. Birthday party,
19. Clothing,
20. Shopping,
21. Gifts,
22. Health,
23. Sports,
24. Games,
25. Car deal,
26. Real-estate business,
27. Using computers,
28. Traffic rules,
29. Garage Sale,
30. Farewell Party.

After asking to participants and four professors working at the ELT department, some tasks were merged, and some tasks were omitted. In the end, ten real-life tasks were chosen to use in the research. These were: 1) Orientation & Greetings, 2) Adventure & Travelling, 3) Foods, 4) Jobs, 5) Shopping & Clothing, 6) Art-Culture, 7) Sports-Games, 8) Music, 9) Health, and 10) Cinema & Theatre.

A checklist (Appendix 8) was prepared, and four ELT professors were asked to check whether those ten tasks were appropriate regarding the focus on meaning, specific goals of the tasks, process, and product of the tasks. The professors were asked to write their suggestions to improve the tasks as well. The items in the checklist were adapted from task-based language teaching criteria by Feez (1998, p. 17), Richards and Rodgers (2014), and Willis and Willis (2007, pp. 12-14). After receiving the checklists from the experts, some changes were conducted, and the syllabus of each task was given to the participants.

3.7 Procedure and Treatment

SL, one of the most popular VWs, was used in this study as it is free, easy to access, and it provides a rich diversity of content to conduct real-world tasks. There are some other reasons to choose SL. First, it provides text-based anonymity, the availability of easy-to-

use, synchronous communication, and visual representation of avatars that can be easily customised. Second, it provides conducting real-life tasks and promotes opportunities to engage in communication and interaction just like in real life (Backe, 2011; Gao et al., 2008; Inman et al., 2010; Mayrath et al., 2007). Similarly, as Inman et al. (2010) argue "Second Life has the capacity to facilitate role-play activities that are equally effective as role-play activities in the real world" (p. 53). Last, the SL allows encountering people from all over the world and participate in communicative activities (Gao et al., 2008; Mayrath et al., 2007; Rappa et al., 2009). Experimental group learners conducted ten real-life tasks in SL. The control group students, on the other hand, conducted the same tasks in the classroom environment.

The main aim of the study was to explore the effectiveness of using SL on the WTC, motivation, and communication anxiety of the student teachers of English. Although native speakers of English could have been found and asked to interact with the non-native participants, as the control group was not given this opportunity, native speakers were not included in the study. ASSURE Model (Heinich et al., 1999) served as the main instructional model for the development of the material. The model consists of six parts: analyze learners, state objectives, select instructional methods, media and materials, utilize media and materials, require learner participation, and evaluate and revise. All of these parts were taken into account in the process of developing the tasks. In order to facilitate authentic communication, the experimental group participants conducted ten real-life tasks using SL. The tasks were generally conducted as role-plays. Using role-playing techniques with both control and experimental group students participated actively in learning activities such as expressing their feelings, ideas, and arguments. Role play as a performative element has been found to foster experiential learning (Wertsch, 1985). Furthermore, the role-playing method is described as a way of realizing live presentations of life experiences that are unprepared for various teaching and learning purposes (Vasileiou & Paraskeva, 2010).

The tasks were conducted as role-plays in both the SL and classroom environment. In the experimental group, role-play activities were conducted with groups of 4 to 5 participants undertaking their role play in the virtual environment. Virtlantis, a virtual island in SL, was one of the islands selected as the research site (<http://www.virtlantis.com/>). In this island, the users can conduct real-life activities by activating various real-world scenes configured

in Holodeck (i.e., a shopping mall, a music instrument shop, a cinema, a theatre), or conduct a virtual class in relaxing venues. Screen shot software programs Bandicam and OBS were used to record task procedures. The control group students, on the other hand, conducted tasks in the classroom. They were just allowed to bring some realia such as pictures, videos, and costumes. The classroom tasks were held in a classroom that has moveable desks so that the control group students could sit facing one another while conducting the tasks. Flowchart of the whole procedures of the study is given in table 6.

Table 6.

Flowchart of the Whole Procedures of the Study

Weeks	SL Group	Control Group
Week 1	Questionnaires SL Training Introspective Interviews	Questionnaires Introduction
Weeks 2 and 3	SL Training Introspective Interviews	Introduction
Weeks 4-13	10 Tasks	10 Tasks
Week 14	Post-Questionnaires Interviews	Post-Questionnaires

As the table 6 shows, the overall procedures included the following detailed steps:

- Designing the task-based syllabus.
- Asking experts for filling the checklist on tasks.
- Administration of the questionnaires to second and third-year STs for reliability.
- Administration of the questionnaires to all student teachers enrolled in Oral Communication Skills II course.
- Introspective interviews with SL group STs.
- Asking participants to choose among the tasks.

- SL training for two weeks.
- Conducting the ten tasks (First pilot with five students one week earlier, Focus group interviews were conducted with these participants, Weekly Evaluation forms were collected after the tasks).
- Questionnaires for both groups (Post-test).
- Semi-structured interviews (Experimental group only).

3.7.1 Weekly Sessions of the Treatment

This part provides information about the procedures before and after the experiment. The detailed information about the procedures of first two tasks is provided here as well. The detailed syllabus for each task is given in Appendix 9. The detailed task procedures of the ten tasks are illustrated in Appendix 10.

3.7.1.1 Weeks 1, 2 and 3

The questionnaires on the WTC, motivation, and communication anxiety were administered to the student teachers in the second week because there were many absent students in the first week. Then, the introspective interviews were conducted with participants of the experimental group. In addition, the second and third weeks were devoted to course introduction and choosing among tasks. In the experimental group, the researcher demonstrated and helped STs to download and register SL, the avatar customizing procedure, and basic tasks like walking, running and teleporting between the places. The participants were guided to edit profile, to move, to teleport, to offer teleport, and to change view angle design their own avatars. After the avatar creation process, the researcher transported to Virlantis and showed students how to use the consoles. Then, the researcher demonstrated the teleportation feature in SL.

Apart from face to face meetings with the whole group, some STs attended the orientation from their dorms or homes via SL. All the sessions were to be carried out collaboratively; the participants were to write weekly evaluation forms throughout the ten tasks. Some overall information was given about how they would conduct tasks and write in weekly evaluation forms. The detailed task procedure and sub-tasks are given in Appendix 10.

3.7.1.2 Week 4 (Task 1): Orientation & Greetings

Before the first task, both groups were provided with the ten-week task syllabus. The first task was orientation. For the experimental group, the task aimed to familiarize participants with the SL and with the University life. The places were Orientation Island in SL, university campuses in SL, islands discovered by the students, places in which learners attended the activities to fulfill the task, and Virlantis. In the pre-task stage, participants were asked to choose the best avatar for the task. The participants were asked to practice voice chat with avatar movement and gestures. They talked about university life (looking for campuses in SL). As for the greetings, STs prepared questions for their conversation partners and answered these questions. The questions helped to know each other. Also, STS were asked to learn English phrases and idioms in greetings as well as comparing and contrasting cross-cultural differences/similarities in greetings. They were asked to teleport to the places mentioned in the syllabus and the places they want and meet other SL residents. In the main task part, as an individual practice, they visited at least five university campuses in SL, and five other islands they wanted to see. Then, they described the places they had seen and asked questions like: What was the best place you visited and how did you find it? Students talked in a role play as an exchange student and a student of their university and discussed the possible problems and solutions to these problems. For instance, they walked around a virtual campus and gave information about the student affairs, dean's and rector's offices, and so on. Also, student teachers took pictures of ten places they liked in SL.



Figure 3. Meeting at a virtual university campus for a part of orientation task

In the control group, one of the aims was orientation to the university life. They conducted city and university orientations. STs talked in a role play as an exchange student and a student of their university. They discussed the possible problems and solutions to these problems. For instance, they gave information about the student affairs, dean's and rector's offices, etc. They were asked to talk about touristic attractions in the city. As for the greetings, STs prepared questions for their conversation partners and answered these questions. The questions helped to know each other. Also, STs were asked to learn English phrases/idioms in greetings as well as comparing and contrasting cross-cultural differences/similarities in greetings. Last, they were asked to describe the places and events they come across while going to their homes or dorms.

3.7.1.3 Week 5 (Task 2): Adventure & Travelling

The sub-tasks of the adventure & traveling task were: reserving a holiday, organizing a tour, checking in at an airport, and reception talk.

Experimental group students were asked to:

1. Talk about their last trip & holiday and express feelings about their last holiday or trip.

2. Discuss transportation choices and advantages and disadvantages of various forms of transportation.
3. Work in pairs and talk about a holiday and possible destinations on the way.
4. Talk about what they need to know before they decide on a place for their holiday.
5. Think about the hotel type, how to reach the destination, the duration, activities, the budget, and shopping.
6. Write their ideas on the board in SL and teleport to the places they want.
7. Take turns to play the role as a professional tour guide, owner of an agency, and take the class to the places in SL. STs who were the tourists had the chance to ask their questions to their “tour guide” questions and take pictures of those tourist sites along the way.
8. Prepare a holiday plan and went to a holiday in SL.
9. Teleport to their hotel, and talk in a role play about problems that is likely to happen in a hotel and find ways to solve it.
10. Prepare a tour poster in SL.



Figure 4. A screenshot from the adventure and traveling task.

The control group students did the same tasks in the classroom. They;

1. Talked about their last trip & holiday and expressed feelings about their last holiday or trip.
2. Discussed transportation choices and advantages and disadvantages of various forms of transportation.
3. Talked about what they need to know before they decide on a place for their holiday.
4. Talked about the hotel type, transportation options, the duration, activities, the budget, and shopping.
5. Wrote their ideas on the board.
6. Took turns to play the role as a professional tour guide, owner of an agency,
7. Asked questions to their “tour guide” questions and took pictures of those tourist sites along the way.
8. Prepared a holiday plan.
9. Teleport to their hotel, and in a role play they picked up a problem that is likely to happen in a hotel and find ways to solve it.
10. Prepared a tour poster and showed it in the classroom.

3.7.2 Reflections on the Ten Tasks

The beginning week was a brief, smooth entrance to what the participants and the researcher would be doing throughout the sessions. Some technical problems occurred during the orientation phase. Technical problems were generally avatar freezing, connection break down, inability to use certain features, and inability to use the microphone. Therefore, it was necessary to inform STs about the possible problems and to find possible solutions during the SL training weeks. Virtual places were sometimes changed or replaced with more appropriate ones once participants experienced any problems or difficulties while exploring them. Seating arrangements and positions were done based on the nature of the task at hand, and the language functions in focus to mimic real-life interactions. Facilities already there in the virtual auditorium (e.g., screens) were purposively employed to serve the learning process (e.g., watching YouTube videos). The majority of the participants claimed that as they watched videos and gained experience, they became more comfortable with doing tasks in SL.

In the first task, orientation, the focus group interview allowed to decide on an individual practice on SL. Therefore, the participants were asked to visit five university campuses inside SL. STs enjoyed traveling task. The weekly evaluation forms showed that they did many things and enjoyed traveling in SL. The Bandicam and OBS recordings showed that the participants did almost every sub-tasks in each task.

In the first weeks of this study, the technical challenges with using the VW SL were quite visible. In some cases, it seemed that the participants lacked the skills needed to use the SL efficiently. However, since there was no immediate information regarding the STs' real world situation, it was difficult to determine if the problems were actually caused by technology or the lack of technical skills in the user. Another technical challenge was the difficulty that arized when observing 30 subjects. Some STs contributed to the discussions more, and some students contributed less.

3.8 The Role of the Researcher

According to van den Branden (2006, p.175), a teacher's role during the tasks is "motivating the learners to invest intensive mental energy in task completion and supporting task performance in such a way as to trigger processes such as the negotiation of meaning and content, the comprehension of rich input, the production of output and focus on form." The classes were run by the researcher by giving directions for each task. In addition, the researcher was the observer while the student teachers were conducting their tasks. The researcher kept a research journal throughout the study. The researcher tried to attend groups with his avatar. When it was inconvenient due to time or another reason, the participants were asked to record their task via the screen recorders Bandicam and OBS. Although the recordings of Bandicam and OBS were not analyzed for the study, they were useful for the researcher to control the groups and make an observation as more than one group did the tasks at the same time which made the observation impossible for the researcher. Along with being a direct observer, the researcher also had the role of an interviewer. This involved gathering information from the participants in the study during informal and formal interviews. Formal interviews were setup by the researcher, but informal interviews took place when opportunities arose. The researcher conducted each

these interviews in his office. These interviews also helped understanding experiences and reconstructed events in which the researcher did not participate (Rubin & Rubin, 2012).

Hubbard (2004) believes that efficient use of Computer Assisted Language Learning (CALL) materials requires training and preparation process. Considering this suggestion, the researcher provided detailed training. The aim of this orientation and training was to prepare and guide student teachers to use SL appropriately and effectively. Also, it aimed to help STs to become more active, confident, comfortable and independent in VWs. As Piantanida and Garmon (2009) state: “at the heart of interpretive inquiry is a researcher’s capacity for encountering, listening understanding, and thus ‘experiencing’ the phenomenon under investigation. Rather than assuming the traditional stance of a detached and neutral observer, an interpretive inquirer, much like a tuning fork, resonates with exquisite sensitivity to the subtle vibrations of encounter experiences” (p. 59).

3.9 Data Analysis

Both quantitative and qualitative data sources were used in this study. For the quantitative data, coming from questionnaires on WTC, motivation, and communication anxiety, Analysis of Covariance (ANCOVA) was computed. As for the qualitative analysis, content analysis was conducted.

3.9.1 Analysis of the Quantitative Data

Quantitative data, which were gathered through WTC, anxiety, motivation questionnaires, were analyzed by using the statistical analysis software called Statistical Package for Social Sciences (SPSS). First of all, descriptive statistics have been presented including measures of frequency, measures of central tendency, and measures of variability. The researcher has made use of frequencies, measures of central tendency, and means to decide the types of statistical analyses have been applicable for the data (Mackey & Gass, 2005).

Shapiro-Wilk normality tests were conducted for all data sets, and it was found that except for one data set (post motivation questionnaire results of the experimental group), all the data showed normal distribution. Tabachnick (2013) recommend a ratio for skewness and

kurtosis values between -1.5 +1.5 to prove normal distribution in a data set. The -2 and +2 are even considered acceptable in order to prove normal univariate distribution (Field, 2009; George & Mallery, 2010; Gravetter & Wallnau, 2014; Trochim & Donnelly, 2006). As the skewness and kurtosis values were -1.05 and +1.07 respectively, this data set (post motivation questionnaire results of the experimental group) was also considered normally distributed and thus parametric tests were conducted. Hence, in order to compare control and experimental groups, ANCOVA tests were conducted.

3.9.2 Analysis of the Qualitative Data

In analyzing qualitative data, certain issues should be taken into account by the researcher; credibility, transferability, and dependability (Mackey & Gass, 2005; Richards, 2003). According to Gass and Mackey (2000), qualitative data analysis steps include transcription, coding, and description of data as well as data analysis. Similarly, Mackey and Gass (2012) emphasize that discovering patterns and developing well-grounded interpretations requires a systematic coding of the data. Patton (2014, p. 432) claims that the researcher is aware that there is no one “recipe” but there are “unique” ways of interpreting the data for each researcher. Strauss and Corbin (1999, as cited in Yıldırım and Şimşek, 2011, p. 261) put coding into three types; 1) Coding according to the previously identified theoretical framework of the study, 2) Coding according to the concepts identified from the data (inductive coding), 3) Coding according to mixing type one and type two above.

The qualitative data gathered from the focus-group interviews, semi-structured interviews, observation and weekly evaluation forms have been subjected to content analysis and analyzed using an inductive approach. All the data coming from these sources were transcribed by the researchers as transcribing the data was a useful tool for starting to analyze and deduce themes (Rubin & Rubin, 2012). Since the focus was primarily on the content of the transcription, the researchers omitted the words or pauses that do not add to the content of the data. The inductive approach includes the identification of the codes, categories, and themes. In the inductive data analysis, first, pre-coding categories were checked, confirmed and modified through a deductive approach. Second, open coding was

conducted. In this stage, the data were broken down, examined, compared, conceptualized and categorized.

All interviews, observations, weekly evaluation forms, and researcher's field notes were read thoroughly and went through the same process of coding. Recurring words and phrases were identified and highlighted to form relevant recurring themes and patterns. For the first three research questions, the analysis focused on the characteristics of SL that have an influence on the WTC, motivation and communication anxiety of the participants. For the fourth research question, the main emerging concepts were 'positive views on SL,' 'reasons to choose SL,' and 'negative views on SL.' This identification directed the content analysis and together with the data revealed through inductive analysis they were added to the coding list. Sometimes the old codes were revised, and new ones were added to the list. In order to track the irrelevant data, the codes and the categories of the data were checked by an independent researcher. After the categories were set, the independent researcher was given the same transcriptions without researcher's comments on them and asked to label the transcriptions. The interrater reliability was based on Miles and Huberman's (1994) formula and was found as 92%. Miles and Huberman (1994) suggested that interrater agreement in qualitative data analysis should approach or exceed 90%. Thus, the interrater reliability of the coding was satisfactory.

Cabaroğlu (1999) provides a detailed procedure of qualitative analysis step by step (Figure 25). These steps were followed in data analysis procedure of this research.

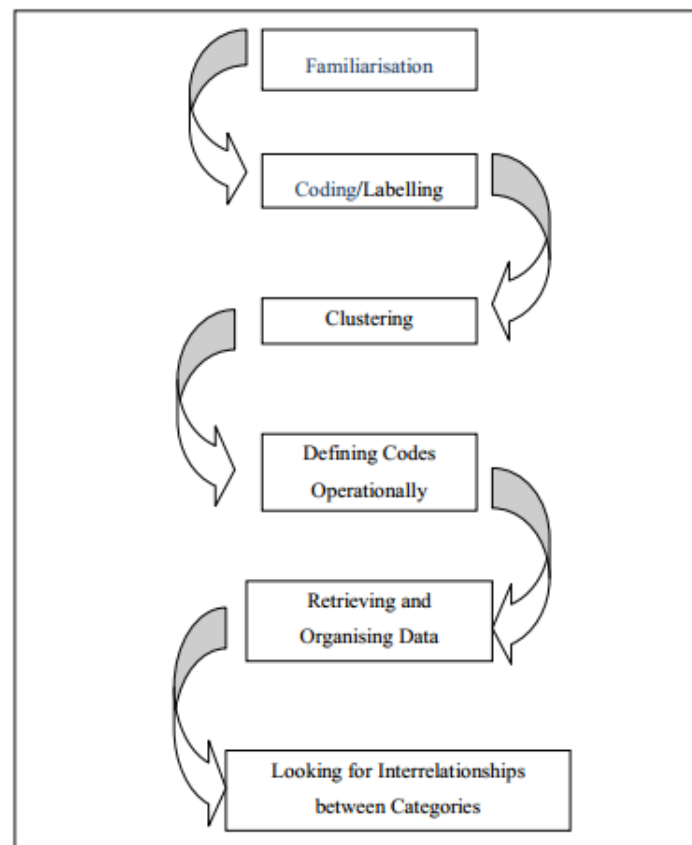


Figure 5. Simplified Overview of the Qualitative Data Analysis Procedures (Cabaroğlu, 1999, p.127). Cabaroğlu, N. (1999). Development of student teachers' beliefs about learning and teaching in the context of a one-year Postgraduate Certificate of Education programme in Modern Foreign Languages, Ph.D. thesis, University of Reading, Reading, UK.

For anonymity purposes, the participants' SL usernames were used in the study. Anonymity was achieved because the participants were asked to register to SL with their usernames but not with their real names before the study. After the interviews, their answers to the questions were member checked. Overall, the following stages summarize the data analysis of the study offered by Patton (2014) and Creswell (2009). For the analysis of the qualitative data the researchers;

1. gathered data through interviews (introspective, focus group and semi-structured), weekly evaluation forms, and researcher's field notes.
2. transcribed the data.
3. formed a general concept (to relate to the research questions) before analysis

4. intensively read the whole set of data to find themes and patterns (pattern recognition).
5. analyzed the data inductively to find patterns, themes, and categories.
6. classified themes to form categories and broader patterns.
7. did the data reduction and focused on the research questions.
8. interpreted the data to reach generalizations and related them to literature.

3.10 Piloting Process

A pilot study refers to the small-scale version of a full-scale study. Hence, it is also called as a feasibility study. A pilot study is a crucial element of a good study design, and it is carried out to pre-test data collection tools such as questionnaires and interviews (Teijlingen & Hundley, 2001). It is essential to pilot any research as “any attempt to shortcut the piloting stage will seriously jeopardize the psychometric quality of the study” (Dörnyei, 2007, p. 75). Therefore, the researcher piloted the instruments and the tasks before launching the main research. The pilot study was conducted in order to establish the appropriate design, procedures, and materials for the main study. It was also of help in the identification of the missing points that need to be covered for the main study. This section is concerned with how the pilot study was carried out before the actual one. The main goal was to test the SL environment in general and its suitability to the target students by administering some samples of the designed tasks. Pilot sessions were conducted before the real sessions, and accordingly, some notes were taken to improve this virtual learning environment.

The questionnaires were piloted with second and third-year Turkish EFL STs studying at the same department with the target group of this study. As for the piloting of the tasks, one different group of STs (4-5) were asked to attend focus-group interviews (Appendix 5) one week earlier to conduct tasks. As Tomal (2010, pp. 50-51) explains: “a focus group generally consists of about five to ten people who are interviewed in a comfortable, nonthreatening setting.” The interviewer asked participants to share their feelings and opinions about the tasks in SL. STs’ responses were recorded using an audio recorder. According to Tomal (2010), it is not always necessary to ask specific questions in focus

group interviews. The participants were asked to explain the good and difficult parts of the sub-tasks. They were asked about their general feelings towards using SL for each task. Their perceptions about the difficult things/disadvantages to doing each task in SL and a better use of this task in SL were asked, and task syllabi were refined accordingly. Hence, ten focus-group interviews with different groups were conducted. Another aim of conducting focus-group interviews was to pilot the tasks before using them. The interviews aimed to identify the parts that went well and bad. Needs analysis viewed through an activity theory lens was (Figure 6) utilized to follow this piloting. The participants asked to remove some activities and suggested new ones. In addition, these suggestions were given to other groups that will conduct the tasks in SL.

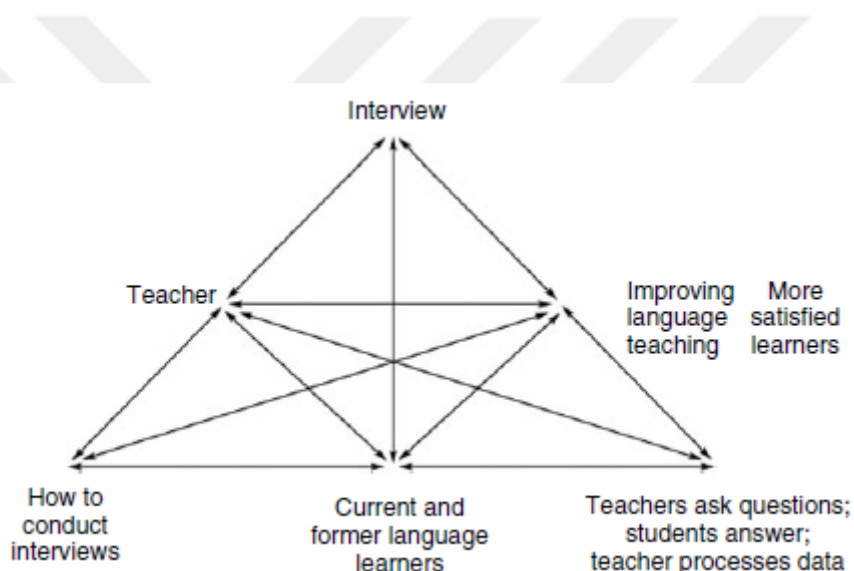


Figure 6. Needs analysis viewed through an activity theory lens. Taken from Thomas and Reinders (2010, p.223). Thomas, M., & Reinders, H. (2010). *Task-Based Language Learning and Teaching with Technology*. NewYork: Continuum International.

Inman et al. (2010, p. 53) believe that SL “has the capacity to facilitate role-play activities that are equally effective as role-play activities in the real world.” Focus-group interviews helped the researcher to consider the discussions of the participants as a whole (Denzin & Lincoln, 2011). The data were transcribed, and key points were coded and extracted. The codes were then grouped into concepts and themes. As a result, some suggestions were given to other groups to improve the task procedure.

CHAPTER IV

FINDINGS AND DISCUSSION

This study investigated the effects of using a VW on the WTC, motivation, and communication anxiety of STs of English. Ten real-life tasks were conducted face-to-face in a classroom (control group) and in the VW SL (experimental group). The WTC, motivation, and communication anxiety of the participants were measured using questionnaires and introspective interviews before the experiment. The questionnaires were also administered as post-tests at the end of the experiment. Furthermore, observation forms, weekly evaluation forms, focus and semi-structured interviews were utilized for the data collection. This chapter provides the findings and the discussion of the findings.

4.1 Findings

The results are presented with specific respect to the research questions of the study. The quantitative data were analyzed through parametric tests addressing three research questions. The aim of the quantitative analysis was to reveal STs' WTC, motivation, and communication anxiety. The quantitative data were analyzed via ANCOVA. The qualitative data were analyzed using content analysis. This part shows the results under the research questions of the study.

4.1.1 Findings From the Piloting

Focus group interviews were transcribed and the following actions were taken for the main study.

- 1- The researchers believed that it would be much better and more feasible if the researcher attends more sessions to solve technical problems easily.
- 2- The STs and the researchers decided to meet once a week during the main study in case the participants face technical difficulties. Participants were giving their weekly evaluation forms after every task, but the researcher watched some of the Bandicam recordings to find solutions to technical problems.
3. The students had less technical problems (voice and avatar freezing) when they used SL after 10 pm and before 8 am. Therefore, the participants were suggested to use SL between these hours.
4. In the foods task, the students learned how to use tools such as forks and spoons, so the other groups were informed about that.
5. The role-play at a real-estate was added to syllabus after the suggestion of the group in the focus-group interview.
6. The other groups easily learned how to play musical instruments and dance from the “music” pilot task group.

4.1.2 Findings Related to the Changes in WTC

A one-way ANCOVA was conducted for the first research question that was dedicated to track the difference between control and the experimental group regarding their WTC after the experiment. The post-test scores adjusted according to the pre-test results of the WTC scores are given in table 7. According to the findings, the post-test mean scores of WTC questionnaire were calculated as 51.84 for the control group and 59.32 for the experiment group. It can be seen from these mean scores that there is a difference and the mean score of the experimental group is higher than the control group. The assumptions of linearity, normality of sampling distributions, homogeneity of variance and regression, and

reliability of covariates were found satisfactory. Consequently, between subjects effects were calculated. Table 8 shows the results of the ANCOVA on whether the difference between groups' WTC post-test mean scores is statistically significant or not.

Table 7.

Descriptive Statistics for WTC Post-test Scores

<i>Groups</i>	<i>N</i>	<i>Unadjusted Mean</i>	<i>Adjusted Mean</i>
Control	35	49.33	51.84
Experimental	30	62.24	59.32

A one-way ANCOVA (Table 8) was computed to assess whether conducting ten real-life tasks within a virtual world had an effect on WTC of the STs by taking pre-test mean scores as the covariate variable. The findings revealed that using a VW had a statistically significant effect on adjusted WTC mean scores ($F(1,62)=5.017$, $p<.05$). In other words, controlling for the pre-test mean scores of WTC, there was a statistically significant difference between control and experimental groups in terms of adjusted WTC mean scores: control group ($M=51.84$, $SD= 13.45$) and experimental ($M=59.32$, $SD=17.12$). According to Bonferroni multiple comparison adjustment results for groups' adjusted WTC post-test mean scores, the WTC of the experimental group in which a virtual world is used ($X = 59.32$) was significantly higher than the control group ($X = 51.84$).

As the difference was statistically significant, the effect size was also calculated. According to Cohen (1962), the effect size correlation means are as follows: $<.10$: trivial, $.10 - .30$: small to medium, $.30 - .50$, medium to large, $>.50$: large to very large. Hence, the analysis revealed a medium to large effect size ($r=.417$, adjusted $r= .398$).

Table 8.

Analysis of Covariance Findings Regarding WTC

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
WTC Pretest	4538.93	1	4538.94	27.80*	.310
Group	819.00	1	819.00	5.01*	.075
Error	10121.99	62	163.251		

*p < 0.05

4.1.2.1 Qualitative Findings Regarding the WTC

For the qualitative part, research question 1 “What characteristics of the virtual world do participants mention as an influence on their WTC in English?” was asked. The data collected through qualitative methods are in agreement with the ANCOVA results above as a result of conducting ten real-life tasks in the VW SL. This may have a variety of reasons which will be discussed below with the extracts taken from the participants’ weekly evaluation forms, focus group and semi-structured interviews.

According to all qualitative data gathered, especially in the introspective interviews, it is found that most of the STs’ low WTC stemmed from their culture of learning (i.e., they had come from a culture of learning in which they were generally passive receivers and had very limited speaking experience). Some example excerpts are:

We always focused on grammar and reading comprehension in the high school. We have never practiced speaking enough (Introspective interview, Blt42).

Until today we have only studied English to prepare for the test. We did not have any worries to improve our speaking skills (Introspective interview, Ackhnur).

A detailed comparison of the WTC levels of STs before and after the experiment displays that the experiment led to change their WTC. As for the characteristics of SL that participants mention influencing their WTC, the themes in the Table 9 emerged.

Table 9.

SL Characteristics and Their Benefits for Increasing WTC

SL Characteristics	Benefits
Natural Environment	Natural environment increased the willingness to speak.
Realistic Places	SL increased WTC as the places stimulated STs to speak. These places helped STs to think of new ideas.
Anxiety-free Environment	SL decreased communication anxiety by providing a personal space for practicing in the target language.
Excitement	SL provided an element of excitement and thus increased WTC.
No Time-related issues	SL increased WTC as participants did not have time considerations. This was useful for WTC as WTC is highly affected by the time issues.

Most of the participants stated that they communicated in a natural environment, which they believe contributed to their WTC in English. Some representative quotes are:

Everything in the class is like a scenario. In this environment, when someone asks you something, you can naturally respond to it. This (SL) is just like real life (Semi-structured interview, Thinkpink).

It is nice to be in the original place where you can see objects around. It is more than being in a place where the real-life communication occurs. Also, as you see the objects, it helps you to find a topic to discuss (Semi-structured interview, Adelina35).

The positive aspects that add to us are too much. Until this day I have not gone to a guitar shop or a cafeteria in a foreign place, and I have not got a chance to talk there. SL is providing such natural places. This also increases the desire to talk (Semi-structured interview, Uniquenes).

This (SL) contributed to our speaking. There was an artificial environment in the class. When I conduct a task here, I can talk about things I see. It was natural for me to talk here. Talking to the class with a little pushing (Semi-structured interview, Obliviate).

The participants frequently stated that the island and places in the SL are very realistic. They believe that communicating in such environments provided a sense of real-life purpose and thus increased their WTC in English:

Interesting. Especially the environment is just like in real-life. The places are very realistic that you feel like you are in a real-world place. There used to be Mynet chat, in which I was sitting in a café or at a bank to talk to other people, but here it is nice that the Avatar is communicating in a real world (Semi-structured interview, Blackjacks).

We went to the hospital this week to perform the Jobs task. There were security guards at the door. This was very realistic and successful (Weekly Evaluation Form, Shr).

The SL cinema was very realistic. Hall, armchairs...We really watched a movie. So far, it was the most beautiful and realistic of the places we went. This was beneficial for our speaking (Weekly Evaluation Form, Thinkpink).

In SL, I want to speak more and more in English, and it improves the fluency of speaking (Weekly Evaluation Form, Rcp).

STs also stated that they had the chance of communicating in an anxiety-free environment. As the quotes below show, most of the participants feel peer and teacher-pressure, especially in face to face and crowded language classrooms. They said that communicating in this environment reduced their communication anxiety and thus they became more willing to communicate. One of the participants stated that:

When I see a person, I cannot speak in the face. I am stuck. I think SL is much more comfortable because I talked through an avatar there and did not see the other people. At first, it was vague for me but I got used to it later. I could speak in a relaxed atmosphere without being tense. Because nobody saw me while I was talking (Semi-structured interview, Presedencelife)

The anxiety-free environment also contributed to WTC as STs took more risks and favored spontaneous speaking instead of memorization. They believe that memorization results in mannered speech. One ST commented:

This (SL) provides a more comfortable environment. As it is in the class, there is no need to worry about the professor and friends' reactions. I'm a bit hesitant about taking the risk in the class. For instance, I speak with ready-made sentences that I memorized or thought before. This is because I cannot talk comfortably in front of everyone. Classroom talk is somehow mannered. However, I tried to take risks here without fear of making mistakes. This increased my WTC (Semi-structured interview, Overdose07).

In general, most of the STs evaluated the SL learning experience as rewarding and interesting. They said that communicating in this environment aroused interest and stated that the tasks in which they were more interested made them more willing to speak in English. In addition, this interesting and rewarding experience aroused some kind of excitement as well. Here are some examples.

I mean, as I said before, it was good to be in the environment of the action. Normally, it is nice to talk about sports while doing sports. It is interesting to do both activities and talking. It increased the willing to talk (Semi-structured interview, Blonde 424).

Music task was fun for me. We went to a music instrument shop and conducted shopper shopkeeper role-play. There was a modern guitar around, and I could play it. I liked the place. It was good to go there, play drums, play guitar, and it was fun (Semi-structured interview, Dippy42).

I enjoyed the task in which we conducted shopping role-play the most as I was able to speak a lot in that task. In other tasks, I could not speak much. I participated in that role the most. Actually, I had desire during this task because it is very exciting to speak while doing sports in this environment (Semi-structured interview, Bettyhouse).

I went to the Eiffel Tower today. It was built in its old form. Cars, buildings. New York Piano Lounge Oasis Beach. That was so fun. Jazz playing music. The photographers took my photo (Weekly Evaluation form, Blonde4245).

For the first time, I have been to the university of Western Australia in SL. It was so beautiful to be by the sea. It was also quite a big place. Having the peacocks on the grass on the camp was, of course, one of the most amazing things I have ever seen (Weekly evaluation form, Killinghumar).

As STs conducted the tasks whenever they wanted, they faced no time-related problems such as time limitation and feeling bad at some times. This feature of SL increased their WTC in English. More specifically, they stated that WTC is not stable for them, but can change in different situations and different times. This state nature of WTC was suitable for communicating in an environment in which STs were given the opportunity to communicate whenever they wanted in a week. Some representative excerpts were:

It is nice to have the opportunity to talk whenever you want in a week and talking while sitting at home. Sometimes I am not in the mood for speaking, and sometimes I do not want to see any one. If I had to go to class on every Monday, I would be less willing to speak. I may not feel well on Monday, for instance. Or I may not want to talk, but I can talk more when I want to talk (Semi-structured interview, Shr96)

Sometimes I get bored in the class. I may not feel well then. It is better to speak out of compulsory class hours (Semi-structured interview, Precedence life).

The willingness to talk is something that changes according to time and conditions. To talk and communicate depends on the mental condition of the person. Being given opportunity to talk whenever we wanted here was important in this sense (Semi-structured interview, Rcp).

4.1.3 Findings Related to the Changes in Motivation

For the research question two, “Does the use of a virtual world affect EFL learners’ motivation? If so, what characteristics of a virtual world do participants mention as an influence on their motivation in English?” data were subjected to both quantitative and qualitative analysis. As for the ANCOVA analysis, the final test scores adjusted according to the pre-test results of the motivation scores are illustrated in table 10. According to the findings, the postl test mean scores of motivation questionnaire were calculated as 4.03 for the control group and 4.13 for the experimental group. It can be seen from the mean scores

that there is a difference and the mean score of the experiment group is higher than the control group. The null hypothesis, which asserted that there was no pre-WTC mean scores by group effect on post-test WTC scores, was accepted. Moreover, homogeneity of regression assumption hypothesis was accepted. Consequently, between subjects effects were calculated. Table 11 shows the results of the ANCOVA on whether the difference between groups' WTC post-test mean scores is significant or not.

Table 10.

Descriptive Statistics for Motivation Post-test Scores

<i>Groups</i>	<i>N</i>	<i>Unadjusted Mean</i>	<i>Adjusted Mean</i>
Control	35	4.03	3.73
Experimental	30	4.13	3.87

A one-way ANCOVA (Table 11) was conducted to see whether using a VW had an effect on the motivation of the STs by taking pre-test WTC scores as the covariate variable. The findings revealed that there was not a statistically significant difference between mean scores of the control (M=4.03, SD=.36) and the experimental (M=4.13, SD=.47) groups ($F(1,62)=.038$, $p<.001$). In other words, controlling for the pre-test motivation mean scores, the difference between the groups regarding post-test scores was not statistically significant.

Table 11.

Analysis of Covariance Findings Regarding Motivation

<i>Source</i>	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Partial Eta Squared</i>
Motivation Pretest	3.802	1	3.802	33.411*	.350
Group	.004	1	.004	.038*	.001
Error	144.53	29	4.98		

* $p < 0.01$

4.1.3.1 Qualitative Findings Regarding the Motivation

Confirming the motivation questionnaire findings, the introspective interviews helped to understand that STs in this study had high perceived motivation before the experiment. They were sure that they had enough motivation to use and learn the language. They strongly believe that if they exert enough effort, they can achieve most of the things with English. There were only a few participants who believe that their English proficiency is low and they had limited ability for learning and using English. Therefore, it can be deduced that most of the STs had high motivation and expectations before the study. However, they were not satisfied with their speaking proficiency levels before communicating in SL.

Although quantitative data did not show a significant difference between the groups, the content analysis of the data yielded that SL increased STs' motivation levels. As for the characteristics of SL that increased motivation, table 12 summarizes the categories. As the table shows, the characteristics that increased WTC also increased motivation.

Table 12.

SL Characteristics and Their Benefits for Increasing Motivation

SL Characteristics	Benefits
Natural Environment	Natural environment aroused real-life purpose and thus increased the motivation.
Realistic Places	SL increased motivation as the places triggered STs to speak. These places helped STs to think of new ideas.
Anxiety-free environment	SL decreased communication anxiety by providing a personal space for practicing in the target language and thus increased motivation.
Excitement	SL provided an element of excitement by which STS became more motivated.

Most of the participants stated that communicating in a natural environment increased their motivation as they see the classroom environment artificial. They created some kind of real-life purpose due to this natural environment, and this increased their motivation in general. STs commented:

For example, you are sitting at a restaurant, and your friend is buying a meal. Then you feel like the Avatar is talking. So it is good for motivation to use the language in the place where you need it (Semi-structured interview, Blackjacks).

Things used in daily life were better. Things I will need if I go abroad. It is useful to talk and learn things that will be needed in real life. We talked about natural things about real life. That was useful (Semi-structured interview, Mehmetbey).

It was helpful to see something and talk. For example, when we went to the cinema in Second Life we sat in a room, and we talked there. Talking there is more natural and makes the person speak more (Semi-structured interview, Obliviate1).

As STs found the places realistic, this feature of SL increased their motivation. Some of the answers were:

The places are realistic in SL. This situation also affects our conversations. This was positive for me. For example, I felt like I was doing real karaoke in real life while doing karaoke in SL. The environment was very realistic. Someone was playing drums. Music voices were coming. These are the things that happen in real life. You can enjoy and use the language here (Semi-structured-interview, Carpediem4245).

Of course, it is more comfortable to talk in my home environment. Being able to see things around while you are talking is like being in real life where other people are there. We are challenging our imagination to do something about reception in the class. However, here we are with the receptionist. This increases our curiosity. It is really realistic (Semi-structured interview, Shr96).

It would have been boring to do shopping task in the classroom. You see everything here in the virtual environment. You see what's on the racks and you're in the middle of it. This is also motivating. So it is better to use language on the spot (Semi-structured interview, Adelina35).

The place we went was so beautiful; there was everything that could be in an amusement park (Weekly Evolution Form, Blonde4245).

STs also stated that they had the chance of communicating in an anxiety-free environment, which is a motivating factor for them. As the excerpts show, most of the participants feel peer and teacher-pressure, especially in face to face and crowded language classrooms. The virtual environment, for them, provides an anxiety-free environment. Here are two examples:

If I were in class, I would not feel that comfortable. Moreover, there are people I do not want to talk to in class. I have a fear of making mistakes in my classes. There is pressure when I speak in front of my classmates and it is negatively affecting me very much. For example, some friends seem to be constantly looking for our mistakes (Semi-structured interview, Gmzsrt).

It is good that no one sees you. Talking from my home with my coffee has reduced my excitement. This increased my motivation (Semi-structured interview, Thinkpink).

In general, most of the STs evaluated the SL learning experience as rewarding and interesting. They pointed out that speaking with their friends without seeing them was interesting. Also, they believe that SL, itself, arouses some kind of excitement. This, they believe, was useful for their motivation. Below are the excerpts of those STs:

I really liked the environment. For example, a foreign woman sang at a place where we were conducting our task. Most of my friends are very shy. They can talk much more easily in this kind of environments. It is certain that this environment is more advantageous than the classroom. The atmosphere is also exciting (Semi-structured interview, Carpediem4245).

So it is not very exciting to conduct a museum role-play in the class. However, here (SL) it is possible to go to a museum just like in real life. Here, seeing the artifacts in a museum motivated us to speak (Semi-structured interview, Tg8280).

4.1.4 Findings Related to the Change in Communication Anxiety

The post-test communication anxiety questionnaire scores adjusted according to the pre-test results of the WTC scores are given in table 13. According to the findings, the final test mean scores of communication anxiety were calculated as 55.39 for the control group and 39.38 for the experiment group. It can be seen from the mean scores mean score of the experimental group is higher than the control group. The pre-assumptions of homogeneity of variance and regression, normality of sampling distributions, linearity, and reliability of covariate were met. Therefore, between subjects effects were calculated. Table 14 shows the results of the ANCOVA on whether the difference between groups' WTC post-test mean scores is significant or not.

Table 13.

Descriptive Statistics for Communication Anxiety Post-test Scores

Groups	<i>N</i>	Unadjusted Mean	Adjusted Mean
Control	35	55.60	55.39
Experimental	30	39.13	39.38

A one-way ANCOVA (Table 14) was calculated to find out whether utilizing a virtual world had an effect on communication anxiety of the student teachers by taking pre-test

communication anxiety mean scores as the covariate variable. The findings revealed that SL had a statistically significant effect on adjusted communication anxiety mean scores ($F(1,62)=19.469$, $p<.001$). In other words, controlling for the participants' pre-test communication anxiety mean scores, there was a statistically significant difference between the post-test mean scores of control ($M= 55.39$, $SD= 1.35$) and experimental ($M=39.38$, $SD=1.62$) groups. According to Bonferroni multiple comparison adjustment results for groups' adjusted communication anxiety post-test mean scores, the communication anxiety of the experimental group ($X= 39.38$) in which a virtual world is used is statistically significantly lower than the control group ($X= 55.39$) after the experiment. As the difference was statistically significant, the effect size was also calculated, and a medium to large effect size (Cohen, 1962) was found ($r= .338$, adjusted $r= .316$).

Table 14.

Analysis of Covariance Findings Regarding Communication Anxiety

Source	Sum of Squares	df	Mean Square	F	Partial Eta Squared
CA Pretest (reg)	2330.06	1	2330.06	10.975*	.15
Group	4133.54	1	4133.54	19.469*	.23
Error	13163.497	62	4.98		

** $p < 0.01$

4.1.4.1 Qualitative Findings Regarding the Communication Anxiety

The qualitative data gathered through participants' weekly evaluation forms, semi-structured interviews and researcher's notes revealed positive insights from participation in SL in terms of communication anxiety. Although an overall decrease was traced in STs anxiety levels as displayed in the results of ANCOVA analysis above, there were significant themes that echoed throughout the content analysis of the characteristics of SL that participants mention influencing their anxiety in English. The excerpts below shed light into the findings in that teachers decreased their anxiety levels in terms of themes that were deductively related to codes emerged (Table 15). The themes are the stress-free

environment, no time-related issues, no negative facial expressions, and natural environment.

Table 15.

Characteristics of SL and Their Benefits Over Communication Anxiety

Characteristics of SL	Benefits
Stress-free environment	SL decreased communication anxiety by providing a personal space for practice in the target language.
No Time-related issues	SL lowered communication anxiety as participants did not have time considerations
No negative facial expressions	Being distant from friends and possible negative facial expressions lowered communication anxiety
Natural Environment	Helped to focus on language instead of other factors like friends

In terms of communication anxiety views, the extracts below show that the SL experience proved to be beneficial since it enabled STs to talk in a stress-free environment. It can be concluded that SL helped STs to decrease their anxiety levels. Additionally, this environment enabled STs to communicate in a stress-free environment. Most of the participants stated that speaking in SL is much easier and less anxiety-provoking when compared to a normal classroom. Some STs' comments regarding communication anxiety are given below:

Nobody sees you. You are drinking your tea and sitting comfortably. This naturally reduces the anxiety. It is relaxing to talk in a relaxed atmosphere (Semi-structured interview, Blackjacks).

When I make a mistake in the class, the people laugh and laugh. However, there is no such thing here. In SL, the environment is more convenient to talk. If we go to a store here (in our city) and try to speak English, the people laugh. However, we can shop and speak in SL easily (Semi-structured interview, Arabella).

Rather than speaking anxiously in a crowded classroom environment, it was positively impactful to be able to perform this task with a few people comfortably (Weekly evaluation form, Mulan001).

STs believe that they were more comfortable as they did not have time considerations. According to the participants, SL provided flexibility in time and place.

When you conduct these tasks in the classroom, you have to do them in a restricted time. This makes it difficult and unnatural. In SL, we talked about everything. There was no time limitation. However, when you are in the classroom, you have to listen to your friends more than you speak (Semi-structured interview, Carpediem4245).

Another important reason for the easiness in SL was that it was not face to face and the STs did not see the negative facial expressions of their classmates. This is coded as no negative facial expressions. Not seeing other's facial expressions (e.g., raised eyebrows) was a relaxing factor for the participants. One of the STs commented:

I felt more comfortable as I did not see the mimics of my friends. Also, my friends could not see my face. When I make a mistake, my face turns to red. Moreover, when I feel nervous my friends display different mimics. This makes me uncomfortable in the classroom. In this environment, I feel more comfortable than in the classroom (Semi-structured interview, Gmzsrt).

It is stated that being lack of knowledge in L2 causes anxiety. If a ST does not know enough words, s/he may stop communication and even avoid using the language. Student teachers in this study mentioned that being able to check dictionary reduced their anxiety:

You can look up the dictionary whenever you want. This makes SL more advantageous than the classroom. We could just look up the word via internet while communicating in SL. It is almost impossible in the classroom (Semi-structured interview, Blt42).

I learned a lot of vocabulary items I did not know while talking in SL. Here I can search the internet for a word that does not come to my mind. This does not disturb the flow and allows me to speak more easily (Semi-structured interview, Gizem005).

Two other participants commented that being in a natural environment reminded them of real-life. They said:

When the waiter asked me what I want to eat, it was the best part of it. As always I felt myself that it was kind of meeting with my friend in real life. So, it was relaxing (Weekly Evaluation Form, Blackjacks).

For example, I talked at a restaurant in SL. So, when I speak at a restaurant in real-world, some words are easier to remember. This also reduces the anxiety level because you know that you already communicated in an environment like this. Hence, you feel more comfortable while talking to others (Semi-structured interview, Overdose07).

4.1.5 Findings Related to Views on Using SL

The fourth research question was dedicated to explore the participants' overall views on SL. Several qualitative data collection tools such as weekly evaluation forms, interviews,

and observation technique were used for obtaining data. Separate themes were identified in relation to the issues associated with conducting real-life tasks in SL. These included positive opinions towards SL, comparison of classroom and SL, and technological difficulties associated with SL. These themes are described and discussed in the following section.

4.1.5.1 Positive Views On SL

For the first category, almost all of the STs comments (29 out of 30) showed positive views on SL. In general, most of them found the SL experience interesting and useful. The SL learning experience provided student teachers with a chance to communicate with their friends from their houses or dormitories. The interviewees used mainly these adjectives: “natural,” “adventurous,” “attractive,” “liberating,” “provocative,” “security,” “constructive,” “experiential,” “collaborative,” “interactive,” “unlimited,” “time-free,” and “realistic.”

In general, most of the participants expressed their unwillingness to communicate in the introspective interviews. They complained about their being taught grammar rules instead of talking and communicating in the classroom. After the experiment, STs’ views on their WTC changed. They reported that being in an environment in which they felt like they were in an English street and speaking in the real setting, gave way to increase their WTC, communicate in a realistic environment, and communicate for real purposes. Besides WTC, when the general positive opinions of STs are examined the major findings are found as Perceived Competence in L2, L2 anxiety, security, excitement, and responsibility (Table 16).

Table 16.

Characteristics of SL That Have an Important Impact on the Dependent Variables of the Study

ANTECEDENT VARIABLES	SECOND LIFE AFFORDANCES
Perceived Competence in L2	SL can increase perceived competence by providing additional practice in L2.
L2 Anxiety	SL can decrease L2 anxiety by providing a personal space for practice in L2.
Security	SL can provide a sense of security by providing a personal space for practice in the target language.
Excitement	SL can provide an element of excitement.
Responsibility	SL with a real-life purpose can provide a sense of responsibility.

Adapted from Shea (2014). Shea, A. M. (2014). *Student perceptions of a mobile augmented reality game and willingness to communicate in Japanese*. Unpublished Ph.D. Dissertation. Pepperdine University, California, USA.

STs believe that the characteristics of SL contributed to their speaking skills and communicative competence. Although it was not within the scope of the research questions of this study, it is seen that owing to the SL environment; STs had positive views related to their self-confidence in communication skills. In this respect, a few examples were:

“SL is very realistic and interesting. I think SL helped me to think in English and try to speak more and more. It also helped me to practice and sharing ideas with others. This practicing improved my speaking skills (Semi-structured interview, Killinghumar).

In all my language learning I tried to memorize and determine what I was going to speak. It has not contributed a lot to my speaking competence. In this environment, I was very eased and this helped me to speak better (Semi-structured interview, Rengimkahve).

As usual, we learned new words and used them. This was useful for our speaking. (Weekly Evaluation Form, Arabella42).

STs believe that no giggles or raised eyebrows allow them to communicate in a stress-free environment, which was useful for better communication.

The class sometimes does not respect. For example, when you pronounce something wrong, they give strange reactions to the class; such as mimics and weird movements (Semi-structured interview, Carpediem4245).

According to the participants, SL can provide a sense of security by providing a personal space for practicing in L2. One participant mentioned that speaking in an environment which provides a secure place.

I feel relieved here because the crowded class makes me very stressed. Talking in front of the class makes me very irritated. I felt secure in SL (Semi-structured interview, Blt42).

As another advantage of SL, STs mentioned that this environment provided an element of excitement. Some representative answers were:

It is very interesting and realistic. For example, you go to a shopping mall, and you try the clothes you want. You can do zombie theater with all the necessary clothes and make-up, which puts people in fashion and makes it easy to play your role. It is certainly not realistic in the classroom. Here is more exciting (Semi-structured interview, Bettyhouse).

It is impossible to go and visit a place in real-life or classroom. SL allows you to see wherever you want. I find the class artificial for using the target language. This is exciting (Semi-structured interview, Daughter of Bendis).

When communicating in SL, I feel myself like in there in my real life, and I am feeling like in real life. It (SL) is realistic (Weekly evaluation form, Adelina35).

Last, STs also mentioned that SL fostered real-life applications of experiential learning. They believe that SL with ten real-life tasks provided a sense of responsibility. Some of the examples are:

I found it very realistic. When we went to places and conducted tasks I felt like a movie actress. Also, there were some people whose native language was English in this environment. This was something that forced us to speak (Semi-structured interview, Killinghumar).

When we go to the realistic places in SL, we wanted to speak as we were also doing something. The class is just like a theatre, but this environment allows to experience what you talk about (Semi-structured interview, Nameless17).

We met at a horse farm and rode horses. It was like in real life and therefore it made me like I really did sports (Weekly Evaluation Form, Mehmetbey).

4.1.5.2 Comparison of Classroom and SL

The purpose of the present study was to explore the effectiveness of a VW on the WTC, motivation, and communication anxiety of the STs of English studying at a state university in Turkey. However, both in the introspective interviews and in the focus-group and individual semi-structured interviews the participants were asked about their reasons to

choose SL. When all the data analyzed and the STs' comparisons of SL and classroom were considered, the following themes emerged. Concerning the disadvantages of classroom perspective, this analysis can be discussed under a model named MATURAL (Mannered Speech, Anxiety, Time-related issues, Unattractive Environment, Restricted, Artificial, and Limits). In other words, STs believe that if they had conducted ten real-life tasks in SL, they would have *memorized* their parts and that would have resulted in "mannered speech," they would have felt more "anxious," they would have had "time-related issues," they would have communicated in an "unattractive environment" and an "artificial environment," they would have communicated by "taking no risks," and they would have encountered many "limits." When it is considered from the advantages of SL, the NATURAL model (Natural, Anxiety-free environment, Time-free environment, Uninhibited speaking, Risk Taking, Attractive & Adventurous places, Liberating) emerges. In other words, STs who conducted tasks in SL stated that they conducted the tasks in a "natural," "anxiety-free," "time-free," "attractive," and "liberating" environment. Moreover, the environment allowed them to "take more risks" and "uninhibited speaking." More specifically, the themes emerged as an advantage of SL have their counterparts. Although the counter themes are not given in the same row in Table 17, for the ease of recalling the themes, the "NATURAL" and "MATURAL" acronyms were created. The pair of contradicting themes are "mannered speech" vs. "uninhibited speaking," "anxiety" vs. "anxiety-free," "time-related issues" vs. "time-free," "unattractive" vs. "attractive," "restricted risk-taking" vs. "risk-taking," "artificial environment" vs. "natural environment," and "limits" vs. "liberating." Both dimensions of the model are illustrated in Table 17.

Table 17.

The MATURAL vs. The NATURAL Model

What Does Classroom offer?	What doe SL have?
Mannered Speech	Natural Environment
Anxiety	Anxiety-free environment
Time-related issues	Time-free environment
Unattractive Environment	Uninhibited Speaking
Restricted Risk-taking	Risk Taking
Artificial Environment	Attractive, Adventurous Natural
Limits	Liberating

Mannered Speech-Memorization vs. Uninhibited Speaking

The STs stated that they had a chance to communicate in a non-threatening nature of SL. Twenty-six of the participants claimed that they would have memorized their roles if they had conducted those ten tasks in the classroom. Consequently, they would have communicated in a mannered way. STs had the following opinions:

If I was in the class, most probably I was going to memorize my parts in the roles. In this respect the class is different. In real life, we do not talk to people with the sentences we memorize. There was no need for something like that in this environment. This is because all eyes were not on us. Our friends could not see us. In this respect, this environment is more suitable for real life. In addition, talking spontaneously rather than speaking in a mannered way, improved my competence to speak (Semi-structured interview, Presedencelife).

In SL, we talked while seeing things around. If I were in the class, I would be much more prepared, and I would have memorized the sentences I was going to use in the tasks. In fact, sometimes I would have memorized my part word by word. I could not have easily talked spontaneously in the class. However, in SL we talked spontaneously. I think this environment is better in this respect. The more I memorize, the more I feel nervous in the class (Semi-structured interview, Thinkpink).

If I had conducted these ten tasks in the classroom, I would have memorized the sentences that I was going to use in front of the class. In my life, I am trying to express everything I see in English. SL is more suitable for my speaking (Semi-structured interview, Vertrauern).

Anxiety vs. Anxiety-free Environment

Another major difference between the classroom and SL was about the level of anxiety that STs experienced. Almost all of the interviewers stated that they communicated in a less anxious state. They believe that SL created a safe and pleasant environment for them to speak as they experienced communicating without seeing their faces. Although they knew whom they were speaking to, this created some kind of anonymity. Hence, this also reduced their anxiety levels. Some answers are as follows:

Nobody sees you. You are sitting at your home and drinking your coffee or tea. This is very good for feeling better. If I am very nervous and anxious, I cannot produce good and correct sentences, and this does not help my speaking abilities (Semi-structured interview, Blackjack).

I felt so comfortable that my classmates did not see me. The mistakes I make in the class cause me to make more mistakes. However, my mistakes here were not too much trouble for me (Semi-structured interview, Gmzsrt).

I felt less anxious about making mistakes. Everyone laughs when you speak English in the class (Semi-structured interview, Adelina35).

Time-related Issues vs. Time-free Environment

As STs conducted the tasks whenever they wanted, they faced no time-related problems such as the time limitation. When compared to the classroom, this feature of SL was very beneficial for them. For instance, this feature of SL increased their WTC and motivation in English. More specifically, they stated that WTC is not stable for them, but can change in different situations and different times. This state nature of WTC was suitable for communicating in an environment in which student teachers were given the opportunity to communicate whenever they wanted in a week. Furthermore, they felt less anxious when they were able to choose the time of communication. They stated that being in the mood is very important for speaking. Some representative answers were:

It is very nice that it is comfortable at home and when we want it to be. The class is a problem in terms of time. To be clear, you sit in class for three hours. There is noise. However, I'm comfortable here. I really do not like sitting for three hours. It is not natural to talk at a certain hour every week (Semi-structured interview, Shr96).

If I were in the class, I would have talked every Monday at three o'clock (The class meeting time). This is too boring for me. Sometimes I do not feel well. However, it was very good to talk when we wanted here (Semi-structured interview, Blackhager).

Unattractive Environment vs. Attractive Places

The participants stated in the interviews that communicating in the classroom is boring as after seeing an environment like SL. Some representative thoughts are:

It is nice that it is very realistic. It's nice to look from the Avatar's eyes. So it is much more realistic to set the camera up like the avatar's eye. Normally it is nice to get to places I can hardly go and easily reach. We can even hear the cat mite, and the sea hump come. All these make it attractive(Semi-structured interview, Blt42).

Speaking in this environment is more interesting than in the classroom. In the classroom, you need to use your imagination to talk about something. Second Life, on the other hand, provides you with a real-life seating. For example, you can see the musical instruments and even play them. Being in a musical instrument shop, playing and speaking at the same time makes the conversation more realistic and attractive. In the classroom, on the other hand, you need to imagine and speak at the same time. So, I find the classroom environment unattractive. (Semi-structured interview, Bettyhouse).

Restricting Risk-Taking vs. Risk Taking

Participants are more likely to take risks and communicate more easily in SL. They stated that they could speak as they wished. They did not consider the others' negative evaluations about themselves. They believe that classroom restricts their risk-taking such as trying to compose complex and long sentences as they feel peer and teacher pressure.

When you make a mistake while talking to a person whose native language is English, they just enjoy it. It is same for us. If a person who speaks Turkish as a foreign language makes a mistake we just enjoy it. However, our classmates are very harsh against mistakes. This is demotivating for me. That is why I try to be very simple in the class. In SL, on the other hand, I spoke how I want. I tried to use very different types of sentences (Semi-structured interview, Gmzsert).

Being able to look up dictionary was an opportunity in SL. This helps you to take risks and use complex sentences with different words. I cannot move on speaking when I cannot remember a word in the class. This environment was more relaxing than the classroom (Semi-structured interview, Adelina35).

The classroom is more formal than SL. Here (in the classroom) you choose your sentences more carefully than SL. The group is more comfortable because it is less threteaning. SL allows you to use language in a more complicated way (Semi-structured interview, Rcp).

As a musician, being able to play a lot of instruments were entertaining. As you see and inspect stuff, it becomes easier to learn (Weekly evaluation form, Dippy 42).

Artificial Environment vs. Natural Environment

Most of the participants stated that they found the classroom environment artificial, which was not very beneficial for improving natural speech. However, they believe that SL provided them a natural environment to communicate. Some representative quotes are:

I think the classroom is an artificial environment for real-life communication. However, in SL you go in, and you talk about what you see. It makes the communication more natural than in the classroom (Semi-structured interview, Obliviate).

SL is very comfortable. We conducted our tasks in the evening. I drank my coffee while speaking. We gave breaks whenever we wanted. While doing music task, for instance, we were listening to songs and background music facilitated our speaking. It was more natural than the classroom (Semi-structured interview, Carpediem4245).

In SL, everything is in English (signs, boards, etc.). Practicing English in this environment is not weird. However, it is weird for me to speak English in a classroom in which everyone is Turkish (Semi-structured interview, Ackhnur3).

Limits vs. Liberating

Other than time-related issues, STs mentioned a variety of limits of the classroom. They regarded SL liberating. Some excerpts are as follows:

The classroom is limited regarding materials that help to speak. For instance, I confuse the meanings of vertical and horizontal. Speaking in the classroom, I could never find a solution. However, in this environment, you can easily match the word you use and the picture. That is very helpful (Semi-structured interview, Dippy42).

Conducting real-life tasks in the classroom is difficult due to some inconveniences and limits. It is difficult to find costumes, for instance. However, SL allowed us to do everything easily (Semi-structured interview, Adalina35).

4.1.5.3 Negative Views On SL

The disliked points of SL can be categorized under technical issues and some other disadvantages, some of which were discussed under the comparison of SL and the classroom.

Table 18.

Some Difficulties with SL and Their Disadvantages

Negative Views	Disadvantages
Technical Issues (Internet, Voice, Avatar Movement)	They negatively affected engagement in speaking especially first two tasks (Orientation and Traveling).
No help of body language	Body language is a useful part of expressing and understanding

The participants reported a few technical issues with regard to accessing and operating within SL, which they believe affected the process in a bad way. The problems are mainly about internet access speed and the microphone problems. Some participants complained about the problems with using the microphone in SL. Some examples are as follows:

Everything is good in SL. The only problem we have here is technical problems. This is inevitably affecting us (Weekly evaluation form, Mehmetbey).

Internet problems affected our speaking. While talking to each other, one of us could not hear, and one of us could not use his/her microphone properly. This affected us in a bad way (Semi-structured interview, Obliviate).

In a few tasks, I could not successfully login because of the internet related problems. I am attending tasks from my dorm and sometimes the internet in our dorm is very slow (Semi-structured interview, Vertrauarn).

It is fun to conduct real-life tasks in SL. I love this environment so much. We discover new things by acting like real in a virtual environment. The only problem is that we have some problem with computers. The program requires high qualities (Weekly evaluation form, Daughter of Bendis).

I could not understand why but I could not turn on the speaking button in SL (Semi-structured interview, Dippy42).

Although the researcher delivered the VW tutorials from a computer lab and in the face-to-face meetings in his office, some problems occurred with the use of SL. Some participants complained about the movements of their avatars. The most common problem was avatar freezing and losing control of the avatar. Some complaints are as follows:

My avatar acted very weirdly while playing tennis. You can even sit on a basketball hoop (Weekly evaluation form, Dippy 42).

Sometimes the avatar goes into the sea or underground involuntarily, and it is not easy to get it out (Weekly evaluation form, Rcp).

Other than the technical issues, the participants mentioned some other disadvantages of the virtual world. One disadvantage was related to the body language. One of the participants stated that being unable to utilize body language was a negative side of the SL. She believes that using and following others' body language is very important for their communication. Moreover, she also said that they would have learned from other groups' tasks in the classroom. She commented:

This place is really intriguing, but I think classroom setting is still better than SL. I mean, it is very important to be able to use body language for communication. Eye contact is also crucial. You cannot do these in SL. Also, I could not watch the other groups. If I were in the classroom, I would learn from other groups. We tried to improve task procedure with your and another group's advice. However, we could not observe the other groups (Semi-structured interview, Mulan).

Although most STs viewed SL as a social network, a few students experienced loneliness in this environment. For instance, one participant looked at the VW as an environment that addresses isolated people. He felt that SL was only a game and that the avatars do not represent reality. He commented:

It is exciting to communicate in this environment. Moreover, the places are very realistic. However, in the long run, I think it is for asocial people who cannot speak in the face-to-face environments (Semi-structured interview, Rcp).

A few participants complained that distraction and exposure to inappropriate content prevented them from using SL in some parts of the tasks. Some examples are:

In some places, the Avatars of some residents were wearing very irritating clothes. We came across some adult content (Semi-structured interview, Rcp).

In some tasks, we were distracted by some adult content, and this prevented us moving on (Semi-structured interview, Dippy42).

4.2 Interpretation of the Findings

The findings of the study revealed positive results concerning the research questions. In this section, the discussion of the findings is provided with respect to research questions.

4.2.1 Discussion on the Changes Regarding Willingness to Communicate

According to all qualitative data gathered, especially in the introspective interviews, it was observed that most STs' low WTC stemmed from their culture of learning. It is seen that they have come from a culture of learning in which they generally have stayed as passive receivers and had very limited speaking experience. Karabıyık (2008) found that Turkish EFL learners engagement in autonomous activities inside the class is quite low when compared to the outside activities. These findings show that the students see the teacher as a strong authority. On one side of the coin, it can be said that culture of learning played a significant role in determining whether to take part in communication or not. On the other side of the coin, it should be noted that there are some EFL learners who have low WTC in English despite their enough competence in the language. So, dealing with these kinds of learners is also important. WTC is closely related to both anxiety and motivation. The discussion of this part aims to shed light on the variables like anxiety and motivation as well.

A detailed comparison of the WTC of STs before and after the study reveals that the use of SL led to increase in their WTC. Thus, it can be concluded that SL has a potential impact on prospective teachers' WTC in English. It is found in this study that VWs enable STs to gain WTC in English which is in line with the literature (e.g., Jauregi & Canto, 2012). In an experimental design, Jauregi and Canto (2012) explored students' interaction patterns in intercultural communication tasks in Adobe Connect (a video-web communication platform), SL, and a traditional class. The findings revealed that SL provides interacting with native speakers and allows learners to perform real-life tasks. They also found that the experimental group's WTC and perceived competence increased while anxiety levels were decreased.

According to the findings of the present study, STs found the virtual environment natural to communicate, and this increased their willingness to speak. The realistic places of the environment was another factor that affected WTC. The nature of the places makes it necessary to mention situated learning, which occurs successfully when the language learning tasks are goal oriented, situated, interactive, and authentic. According to situated language learning, language learning is an ongoing process that never ceases. A VW environment is appropriate for situated learning as STs can feel the sense of place (Bellotti

et al., 2010). SL, in this study, provided an opportunity to achieve situated learning via environmental simulation as situated learning occurs successfully when the language learning tasks are goal oriented, situated, interactive, and authentic. According to Felix (2002, p. 3), in situated learning learners are “active constructors of knowledge who bring their own needs, strategies and styles to learning, and skills and knowledge are best acquired within realistic contexts and authentic settings, where students are engaged in experiential learning tasks.”

Another characteristic of SL that helped STs to communicate was its being on the anxiety-free environment. This was confirmed by Balçıkanlı (2012) as well. He maintains in his study in which he asked the Turkish and American students to communicate in SL. The environment provided an anxiety-lowering, learner-centered, and autonomous learning environment and promoted interaction among the Turkish and American participants. As Balçıkanlı (2012) asserts, the findings of the research in this respect are quite promising as the participants found the VW experience less anxiety-provoking than face-to-face interactions. This finding enlightening as anxiety is a crucial factor in successful language learning.

In Oxford's (1999) classification of anxiety, which asserts that anxiety is not always something negative, anxiety was categorized as debilitating and facilitative. The former one is explained as an opportunity to intensify the performance of a learner in certain tasks, on the other hand, the latter one negatively affects the learner's performance. The findings of this present study illustrate that the anxiety felt in the classroom is debilitating in nature. It is also stated by the participants that the anxiety-free nature of SL mainly stems from the fact that their classmates did not see them while speaking. MacIntyre (1999) regards foreign language anxiety as the worry and negative emotional reaction aroused when learning or using a foreign language. From this perspective, it can be deduced that SL is also a way of reducing foreign language anxiety. In a path analysis, Hashimoto (2002) explored the prediction level of WTC and motivation on the frequency of communication in the language classrooms. The study found that perceived competence and language anxiety is found to be significantly related to WTC.

In the literature, it was believed that WTC of someone remains stable over time, and across communication situations. Hence, WTC was conceptualized as ‘the probability of initiating communication, given the opportunity’ (McCroskey & Baer, 1985, p. 420).

However, when it was studied in the second language communication, it was observed that there are some individual and situational variables which influence speakers' tendencies to take part in L2 communication (MacIntyre et al., 1998). Therefore, different from WTC in the L1, WTC in the L2 was conceptualized both as a trait and a state level which may show some differences in different situations. Taking this into consideration, the WTC of participants in this study was positively affected by the freedom that allowed STs to communicate whenever they wanted. Moreover, the definition of WTC by MacIntyre et al. (1998, p. 547) "a readiness to enter into the discourse at a particular time with a specific person or persons, using a L2" directly explains the advantages of speaking in SL instead of speaking in the classroom in which the setting and the time are predetermined. This is categorized as "no time related issues" in the characteristics of SL that has an influence on the WTC of STs.

The literature on the WTC, especially the model studies, also have shown that the variables affecting WTC are expanding. Some of these variables as the predictors of WTC include but not limited to motivation, perceived competence of L2, anxiety, teacher support, attitudes towards the international community and their perceived linguistic self-confidence, online chat, integrative motivation, students' perception of speaking activities in the foreign language classroom, international posture, and students' attitudes toward the language (Bektaş, 2005; Çetinkaya, 2007; Freiermuth & Jarrell, 2006; Leger & Storch, 2009; MacIntyre et al., 2003; Öz et al., 2015; Peng, 2006; Wen & Clément, 2003; Yashima et al., 2004). The findings of the current study proved that a VW has positive effects on WTC as well. Hence, it can be concluded that the characteristics of SL (natural environment, realistic places, anxiety-free environment, excitement, and no time-related issues) mentioned by the participants can be added to this expanding circle. Moreover, this present study supports the findings of Shea (2014) who mentions some variables such as perceived competence in L2, L2 anxiety, security, excitement, and responsibility as the advantageous elements of the online worlds that have an important impact on the WTC of language learners. Considering the fact that some EFL learners are unwilling to communicate in the L2 despite their sufficient L2 competence, MacIntyre et al. (1998) claim that "WTC as the final step in preparing the language learner for communication, because it represents the probability that a learner will use the language in authentic

interaction with another individual, given the opportunity” (p. 558). This virtual environment used in this study can be a good way of giving the mentioned opportunity.

Another finding was that SL allowed taking more risks in language production. Similar findings were found by Reinders and Wattana (2011), who investigated the WTC of Thai learners’ in English in an online multi-player game and found that the virtual environment created less barrier to the learners than the classroom environment regarding language production. Moreover, the game environment appeared to enhance participants’ WTC in English because shy students in the classroom tended to express themselves easily during the game. Providing the participants of this study with opportunities to communicate in SL was crucial because after investigating WTC levels of EFL student teachers in Turkey, Öz et al. (2015) concluded that more opportunities should be given to Turkish EFL learners to communicate in more stress-free environments as Turkish learners are unwilling to participate orally (Jackson, 2002; Öz, 2014). The research findings show that VWs may provide these stress-free environments.

Results of this study also showed that another source of the increase in WTC was the fact that SL provided an environment in which STs could take more risks than in a classroom. Being involved in a virtual world and conducting tasks in this environment improved their WTC in English. Parallel to the results obtained from the WTC scale and content analysis results, the participants reported on the issues which are attached to WTC in English:

- Natural environment increased the willingness to speak.
- SL increased WTC as the places triggered STs to speak. These places helped STs to think of new ideas.
- SL decreased communication anxiety by providing a personal space for practicing in the target language.
- SL provided an element of excitement.
- SL increased WTC as participants did not have time considerations.

4.2.2 Discussion on the Changes Regarding Motivation

The quantitative analysis on the research question on whether there was a significant difference in motivation levels of the participants, who conducted ten real-life tasks in SL,

showed that there was not a statistically significant difference between the adjusted post-test motivation questionnaire results of the groups. The content analysis of the qualitative data, on the other hand, indicated that SL had a significant effect on pre-service teacher's motivation levels. Thus, it can be concluded that SL has a potential impact on prospective teachers' WTC in English. By considering the quantitative findings, it could have been claimed that conducting real-life tasks in SL or in the classroom has similar effects on pre-service teachers' motivation. However, content analysis of the qualitative data showed that SL was helpful in increasing STs' motivation levels. As the qualitative data show that the motivation levels of the participants have increased, the rationale behind the non-significant difference in the quantitative analysis can be attributed to two factors. First, no significant differences in the quantitative analysis between the groups might be related to the fact that the participants already picked "four" and "five" in the pre-test of the questionnaire. Furthermore, the reverse items were clear-cut such as: I think learning English is a waste of time, I do not have much interest in learning English., I do not enjoy learning English. Almost all of the respondents chose "1" in the 5-point likert scale. When the items were reverse coded, they became five. So, it also caused to reach non-significant differences. It was not likely to observe a significant difference as the pre-test motivation levels were very high. Second, the items in the motivation questionnaire included both general language learning motivation and communication motivation. However, the STs answered interview questions mainly considering their motivation in communication.

The recurring themes regarding the characteristics of SL that increased motivation were a natural environment, realistic places, anxiety-free environment, and excitement. These characteristics of SL also increased the WTC levels of participants, which supports research findings that found a close relationship between motivation and WTC of language learners (Çetinkaya, 2007; Gardner, 1985; Freiermuth & Jarrell, 2006; Hashimoto, 2002; Leger & Storch, 2009; MacIntyre et al., 1998; MacIntyre et al., 2003; Peng, 2006; Wen & Clément, 2003; Yashima et al., 2004). The findings of this study is that integrative and extrinsic motivation appear to be more affected by a virtual world compared to instrumental and intrinsic motivation. According to Gardner and Lambert (1972), when the motivational orientation is instrumental rather than integrative, lower success is likely to be experienced. Therefore, integrative motivation, defined as the desire to learn a language in

order to communicate with people from another culture that speak that language, should be considered a key factor in language learning.

The literature informs us that some EFL learners are demotivated to use English even if they have enough competence in the target language. It is important to deal with those kinds of problems since motivation is closely related to success in language learning (Maslow, 1968, 1970). For instance, the success of L2 learning is highly affected by motivation (Baker & MacIntyre, 2000). It can be the driving force to initiate and sustain learning (Baker & MacIntyre, 2000). It can be concluded that motivation directly affects learners' communication activities in the target language. The results of this study showed that VWs help STs to increase motivation which is in line with the literature (Savin-Baden et al., 2010; Stoerger, 2010; Sweeney et al., 2011; Wehner et al., 2011). In addition, previous research findings found that VWs have positive effects on motivation (Barab et al., 2005; Dalgarno & Lee, 2010; Iqbal, Kankaanranta & Neittaanmäki, 2010; Kamalı, 2012; Lamb, 2006; McGee, 2007; Wehner et al., 2011).

Previous research findings support the findings of this present study regarding the increase in motivation levels. In a study, Wehner et al. (2011) investigated the relationship between motivation, VWs and language learning of university-level Spanish learners. The findings showed that SL group was more motivated and less anxious than the control group. A case study conducted by Kamalı (2012) examined the experiences and perceptions of preparatory Turkish EFL learners on motivation, self-confidence, and anxiety. Task based-language learning activities were used, and the learners who were given different roles conducted speaking activities with native speakers, peers, and instructors in SL. It was found that the SL experience of students by communicating with native speakers of English with task-based activities enabled them to gain motivation and self-confidence. Similarly, Iqbal et al. (2010) found that learning through VWs increased motivation of their participants. In another study, Jauregi et al. (2011) found evidence that when compared to traditional classrooms, VWs serve a motivating factor for language learners to learn a foreign language.

The participants of this study stated that SL is rich in visualized elements that make the learning process more realistic. The realistic places, attractive and animated nature of the environment motivated them, and they became more willing to speak and more motivated,

which supports previous research findings (Lim, Nonis, & Hedberg, 2006; Omale et al., 2009; Peterson, 2005; Wehner et al., 2011). Lim et al. (2006) found that MUVES increased their participants' motivation as the interactive features of VW they used were a motivating factor for them. The findings of a study conducted by Omale et al. (2009) found that the visually appealing, animated, and interactive features of VW increased the motivation of the participants. Furthermore, Peterson (2005) added that VWs are useful in increasing student engagement in interactions through which linguistic competence can be facilitated.

Besides the literature that explicitly lists learners' sense of presence as relevant to a discussion of participation in VWs (Leong, 2011; Panichi, Deutschmann and Molka-Danielsen, 2010; Peterson, 2010; Schweinhorst, 2004), this study showed that the participants' experience of the SL was at least satisfactory to the extent that it provided them with the motivation necessary to complete all the sub-tasks of the course. The role of avatars in terms of their performative and representational potential effects on the participation of STs regarding motivation, presence, and quality of experience was another factor in the study as also discussed by Snyder, Panichi, and Lindberg (2010).

4.2.3 Discussion on the Changes Regarding Communication Anxiety

The analysis on whether there was a significant difference between experimental and control groups in terms of their adjusted post-test anxiety scores showed that SL affected anxiety of pre-service teachers more than the classroom group. Thus, it can be concluded that SL has a potential impact on STs' communication anxiety in English. The major themes as the characteristics of SL decreasing communication anxiety were: stress-free environment, no time-related issues, no negative facial expressions, and natural environment.

The results of this study showed that SL has the potential to decrease the anxiety of EFL learners which is in line with the literature (Balçıkanlı, 2012; Couto, 2010; Kamalı, 2012; Pfeil et al., 2009; Wehner et al., 2011). Balçıkanlı (2012), for instance, used SL as a practical tool to find out how it would affect language EFL learners' oral interactions. Turkish and American students were observed, and their perceptions about SL were analyzed. The findings showed that despite some challenges, SL served as a useful tool for

language learning activities as it had the potential of lowering the stressful environment in the language classrooms. It was also maintained that SL environment provided an anxiety-lowering, learner-centered, and autonomous learning environment and promoted interaction among the Turkish and American participants.

One of the positive attitudes in the perceptions was that participants communicated in a secure environment. This was also confirmed by Balçıkanlı (2012) who found that SL reduced the risk of being threatened. The findings of the research were quite promising as the participants found the VW experience less anxiety-provoking than face-to-face interactions. Couto (2010) determined the relationship between anxiety and the use of VWs. The participants were foreign language learners of Spanish and English. Speaking practice sessions were conducted in SL the perceptions of participants were investigated. The participants mentioned their willingness to practice English and Spanish language both face-to-face and in VWs. The results showed that VWs is a way of reducing anxiety in language performance of learners. In a case study conducted by Kamalı (2012), the experiences and perceptions of preparatory EFL learners on motivation, self-confidence, and anxiety were examined. Task-based language learning activities were used with the students. The learners were given different roles conducted speaking activities with native speakers, peers, and instructors in SL. The findings suggested that the SL experience of students by communicating with native speakers of English with task-based activities provided them to gain motivation and self-confidence. Moreover, participants stated that they had overcome their speaking anxiety. The study concluded that the study was inspiring for the effectiveness of VWs in language education in Turkey. In another study, Wehner et al. (2011) investigated the relationship between motivation, VWs and language learning of university-level Spanish learners found a difference between the experimental and the control group regarding their motivation, namely SL group was more motivated and less anxious than the other group. Both these studies and the current study show that creating a secure environment is beneficial for foreign language users.

The results from this study show support for previous research on VWs which mentioned how using a VW could decrease anxiety (Cooke-Plagwitz, 2008; Deutschmann et al., 2009; Dickey, 2005; Jarmon et al., 2009). Dickey (2005), for instance, found that “the combination of the text chat tool, unique names, and avatars provide a sense of anonymity” (p. 445) and this helped to decrease anxiety. Similarly, Deutschmann et al. (2009) found

that using a virtual world decreased anxiety and provided comfortable speaking with friends in giving presentations when compared to the classroom. As far as the research setting is concerned, these two studies and the present study reached similar findings which show that SL helps to decrease communication anxiety of learners by creating a sense of anonymity and room for comfortable speaking.

In the literature, there different categorizations of anxiety are discussed: trait anxiety, state anxiety, and situation-specific anxiety (Brown, 2014; MacIntyre, & Gardner, 1991). State anxiety is experienced in a particular event or situation, and trait anxiety can be experienced in almost every event or situation. Consequently, from the trait perspective, anxiety can be defined as a personality trait. In other words, it does not change from situation to situation. Contrary to trait anxiety, state anxiety is characterized by an individual's temporary, urgent and authentic reaction against a particular situation. It may have different variations regarding intensity (high and low) and duration (short-term and long-term). The situation-specific perspective is related to individuals' clear emotional reactions to the situations such as oral presentations and examinations, discussions in the classroom. The findings of this research question showed that SL not only decreases situation-specific anxiety but also the state anxiety. It affected this types of anxiety because participants gained experience of communicating in real-life settings. They stated that they could transfer this decrease into to real-life.

The decrease in the anxiety levels was also useful for the increase in the WTC. This is also confirmed by some previous research studies. Hashimoto (2002), for instance, investigated whether motivation and WTC could predict the frequency of communication in the language classrooms. The findings yielded that perceived competence and language anxiety were found to be significantly related to WTC. Horwitz et al. (1986) mentioned three components of FLA: communication apprehension (CA), test anxiety, and fear of negative evaluation. According to Aydın (2008), language learners' fear of negative evaluation is a critical issue in EFL learning contexts. For example, involving in evaluative situations may cause fear of negative evaluation. Job interviews can be given as an example to fear of negative evaluation. As the participants of this study experienced this kind of real-life tasks, their fear of negative evaluation was also decreased via the use of virtual environment.

4.2.4. Discussion on the Views of the Participants About SL

The data gathered to answer research question four revealed that the participants held generally positive views towards using SL for real-life tasks and for their WTC, motivation, and communication anxiety. The data indicated that most of the STs liked SL and thought it was beneficial, useful, and important. Some other adjectives to describe SL were: ‘natural’, ‘adventurous’, ‘attractive’, ‘liberating’, ‘provocative’, ‘security’, ‘constructive’, ‘experiential’, ‘collaborative’, ‘interactive’, ‘unlimited’, ‘time-free’, and ‘realistic’. In addition to positive views, the research reached two more themes: superior aspects of SL over the classroom and negative views towards SL.

In terms of opinions about the experience with SL, the STs generally had positive views corresponding to previous studies (e.g., Balçıkanlı 2012; Dickey, 2005; Kamalı, 2012; Kuriscak & Luke, 2008; Wehner et al., 2011). The data showed that SL created a non-threatening environment that facilitated more interactions, specifically for those who are not willing to communicate in a face-to-face environment. There were some characteristics of the SL environment that provided advantages for STs. For example, SL allowed them to connect from their home or dormitory with just one click while sitting and this created an anxiety-free environment. In Oxford’s (1999) classification of anxiety, which asserts that anxiety is not always something negative, anxiety was categorized as debilitating and facilitative. The former one is explained as an opportunity to intensify the performance of a learner in certain tasks, on the other hand, the latter one negatively affects the learner’s performance. The findings illustrate that the anxiety felt in the classroom is debilitating in nature. It is also stated by the participants that the anxiety-free nature of SL mainly stems from the fact that their classmates did not see them while speaking. FLA is a kind of worry and negative emotional reaction aroused while learning or using a foreign language (MacIntyre, 1999). From this perspective, it can be deduced that SL is also a way of reducing FLA anxiety. This is important because Hashimoto (2002) found that perceived competence and language anxiety is found to be significantly related to WTC. Anxiety is also closely related to speaking performance. In other words, foreign language anxiety is a strong predictor of participants’ oral performance (Woodrow, 2006).

According to Allen and Franklin (2002), fear or anxiety acts as a barrier for language learners of English to participate in learning environments as they feel peer-pressure. This

generally stems from low English language competence. They add that these learners have problems engaging in the experiential learning activities which are important in improving language use and language competence. Besides foreign language anxiety, speaking or communication has its own specific characteristics that make EFL learners feel anxious (Horwitz et al., 1986). This type of anxiety may cause negative physical outcomes such as dry mouth, sweating, weak knees, and nausea (Boyce et al., 2007). Communication anxiety is quite common among L2 learners who are likely to experience situation-specific anxiety while participating verbally in class, speaking in public, or taking tests (Williams & Burden, 2000). The data gathered throughout this study showed that SL was very helpful in decreasing these anxiety types. In addition, regarding the issues that Allen and Franklin (2002) mentioned above, SL was found to create an environment in which those kind of students felt comfortable and engaged in communication. In other words, SL facilitates students' communication as well as their engagement in learning.

The findings are well suited in the flow theory which asserts that learning environments need to be engaging in order to keep learners' attention as high as possible, catch learners' attention, and to arouse the curiosity (Barab et al., 2005; Egbert, 2003). Conceptualized by Csikszentmihalyi (1975), flow theory is the idea that learners perform best when their skill set and the difficulty of the task being completed are balanced. Egbert (2003) claims that flow can occur in a foreign language classroom with some factors including "deep sense of enjoyment and playfulness" (p. 561). Regarding this theory, a VW has the capability to encourage improvement in a variety of tasks at a rate favorable to users who have the chance choose to partake in building exercises or not. Therefore, it is reasonable to postulate that playfulness as a component of flow can and does occur in the environment as residents of a VW interact with one another and build the places they communicate in. In short, VWs offer the potential for flow in to help learners acquire foreign language learning. Thus, based on the findings of this study, it can be said that SL offered the potential for flow to help learners to use foreign language learning.

There is a large and growing body of research on the benefits of simulations in language learning (Dickey, 2010; Inman et al., 2010; Paul, 2008; Schiller, 2002). Inman, Wright, and Hartman (2010, p. 53) believe that SL "has the capacity to facilitate role-play activities that are equally effective as role-play activities in the real world." This study also supported previous task-based research findings in SL. They indicated that meaningful and

real-world tasks have positive impacts on learners' motivation and engagement (Deutschmann et al., 2009; Deutschmann & Panichi, 2013; Peterson, 2010, 2012), oral performance and interactions (Lan et al. 2013), intercultural communicative competence and WTC (Jauregi & Canto 2012), learner participation and engagement (Deutschmann et al. 2009), motivation, perceptions of anxiety, and self-confidence (Kamalı, 2012), cultural, linguistic and world knowledge (Duff, 1986), learner autonomy (Canto et al., 2014; Jauregi, 2016; Jauregi et al., 2011; Jauregi & Canto, 2012), taking risks and communicate more easily (Lin, Lin, & Huang, 2008), spontaneous use of English (Ellis, 2000; Jauregi & Canto, 2012; Jauregi et al., 2011; Lan, Fang, Legault, & Li, 2015) and cooperation and actively participating in the learning process (Swertz, Panichi, & Deutschmann, 2010). Avatars and visually built objects helped to create a task-based language learning environment and allowed learners to have a real-world experience.

In ELT, experiential learning theory has taken the form of task-based language learning and discovery-learning. In the classroom context, experiential learning is about doing things such as playing games or performing tasks by using the language. It is indicated by the STs in this present study that tasks attracted their attention. It was found beneficial to speak based on a specific content which is related to daily life. Also, learning vocabulary for real-life subjects was useful. As these environments also provide the simulations of real-world tasks like shopping, interviewing, walking around just for fun or discovery, the participants are motivated and enjoyed using SL for these tasks. Similar findings were found by some previous research (Savin-Baden et al., 2010; Stoerger, 2010; Sweeney et al., 2011). Jarmon et al. (2009) reached positive results with regard to experiential learning since it enabled their participants to learn by doing and applying this knowledge in real life. Kamalı (2012) examined the experiences and perceptions of preparatory language learners on motivation, self-confidence, and anxiety. Eight real-life tasks were used with the prep-school students. The learners were given different roles conducted speaking activities with native speakers, peers, and instructors in SL. The findings suggested that the SL experience of students by communicating with native speakers of English with task-based activities caused them gain motivation and self-confidence. In another study, conducted by Koenraad (2008), real-life simulations were created and it found that the participants considered it as an interesting experience and felt lucky to use VWs instead of the traditional classroom. In another study, Kaufman (2003) found that giving tasks to

learners enabled them to make an effort to discover the language, and thus tasks provide great opportunities to students. Similarly, there are many researchers who found that VWs potentially afford experiential learning benefits (Chittaro & Ranon, 2007; Dalgarno & Lee, 2010; de Freitas & Neumann, 2007; Jarmon et al., 2009). In these environments, simulations can be created to allow the practice of skills, or “undertake embodied learning” (Dalgarno & Lee, 2010, p. 19). Following Kolb’s (1984) experiential learning theory and the model proposed by de Freitas and Neumann (2007), Hew and Cheung (2010) concluded that the users of a virtual world could learn by doing, test their hypotheses about the world, and observe the outcomes of any actions. Moreover, experiential learning tasks in a virtual world can facilitate impractical or impossible learning activities that would be impossible in real life (Dalgarno & Lee, 2010).

From the data analysis, it is reasonable to conclude that the STs possessed the basic technological knowledge and skills to participate in all tasks of the course to their advantage for learning through their avatars. Still, they were provided with compulsory induction tutorials prior to course commencement and with ongoing support both in a computer lab of the educational faculty in the first two weeks the course. Furthermore, as it can be seen in the background information questionnaires and researcher’s observation notes, they also possessed the necessary skills to use the virtual world SL independently. Some of them said that they thought they were going to always have problems throughout the study. Previous findings suggested that this virtual world’s complex interface can act as a barrier to student learning and acceptance of SL (Jarmon et al., 2008; McKay, Schie, & Headley, 2008; McVey, 2008; Schultze et al., 2008). The STs in this study confirmed findings from previous studies concerning some disadvantages of using a virtual world. STs had similar problems with the participants of some previous studies (Chow et al., 2007; Jarmon et al., 2008; Luo & Kemp, 2008; McKay et al., 2008; Schultze et al., 2008).

The findings of this study is parallel to the literature in that hardware and software issues hardware requirements, audio problems, and general technology problems (Dalgarno et al., 2013) could be a barrier (Chow, Andrews, & Trueman, 2007; Franklin et al., 2007; Luo & Kemp, 2008; Sanchez, 2009; Schultze et al., 2008). STs stated that besides technical issues, inappropriate content distracted them which was also found by some previous research studies (Hayes, 2006; McKay et al., 2008). It is stated that if learners do not see VWs as educational tools, they would avoid using it (Jarmon et al., 2008; Lambert et al.,

2008; Vogel et al., 2008). It is evident that STs will continue to be reluctant to use SL or other virtual environments until these issues are addressed. Taking this into consideration, two recommendations can be given. First, rather than one or two sessions of technical assistance, participants should be provided with more instructional videos and get more help to use SL and a technical facilitator should help throughout the process. The second recommendation is related to the unpredictability of SL. Both this present study and Neely et al. (2010) show that technological barriers prevent learners and teachers using VW. Therefore, future studies should pay attention to unpredictable negative aspects of SL. One solution is to direct users to safe places that were designed for only educational purposes.

As for the elements of meta-communication that are so meaningful in regular classrooms, such as mimics and facial expressions, STs provided contradicting points. As Inman et al. (2010) found as well, some participants complained about the lack of expressiveness of avatars. It could be concluded that, in order to transfer to real-life settings better, SL would be more useful if better expressiveness and more gestures were included. On the other hand, some other participants commented that gestures, facial expressions, posture or mimics might be a factor that makes them nervous. Therefore, they were happy that they did not see each other's negative facial expressions.

The results indicate that this type of environment facilitates both cross-cultural understanding and L2 knowledge. SL provided many opportunities for active participation and taking part in the negotiation of meaning. The researchers of this study agree with the STs in this study that conducting real-life tasks in SL can be a useful activity to enhance readers' responses. Furthermore, they concurred that VWs, in general, can offer unique opportunities for its users.

The overall findings of this study can also be attributed to the participants' culture of learning and learner autonomy. The development of learner-centered approaches in education is a significant factor that has made the notion of 'learner autonomy' very crucial. The focus on learner-centeredness has increased the value of learner autonomy, which should be one of the main goals of higher education (Baume, 1994). The introspective interviews showed that STs in this study came from a culture of learning in which learner-centered approaches were not in the center of teaching. Learner autonomy has been found crucial for language learning as well. However, fostering learner autonomy should be an integral part of modern language teaching (Tscherhart & Rigler, 2009).

Similarly, for Baume (1994), one of the key goals of higher education should be fostering learners' autonomy. According to Smith (2003), preparing teachers to promote learner autonomy especially in language teacher education programs is of paramount importance. STs should be convinced of the value of learner autonomy. Fostering learner autonomy is crucial because for the last 30 years "[learner autonomy] has been viewed as both a desirable goal of education and a constituent element of good teaching and learning" (Benson & Huang, 2008, p. 422). Yumuk (2002) explains the situation in Turkey clearly.

"One of the main problems facing students entering university in Turkey is the prevailing view that the teacher is the dominant authority who controls learning, which contradicts the active role learners should take in academic contexts in order to process the flow of new information" (p. 152).

In a study on the perceptions about using SL, Balçıkanlı (2012) maintained that SL environment provided an anxiety-lowering, learner-centered, and autonomous learning environment and promoted interaction among the Turkish and American participants. Hence, considering the issue in Turkey mentioned by Yumuk (2002) and the role of autonomy in language learning, VWs can be used as a tool for fostering learner autonomy in modern language teaching. The study also found that the STs in this study came from a culture of learning in which they mainly stayed passive receivers and had very limited speaking experience. Still, the data show that first-year STs are ready to take responsibility for their own language learning. Furthermore, the majority of them are already practicing some kind of autonomous activities (watching English movies and TV series, listening to English songs, using the internet in English) outside the classroom. Taking all these into consideration, since students do not become automatically autonomous in the classroom (Little, 1995), it can be suggested that foreign language teachers in Turkey should try to foster their student's autonomy not only in the universities but also in the high schools. Okumuş-Ceylan (2014) found that Turkish EFL learners mostly watch movies and listen to songs outside the classroom. In addition, when the outside class activities of Turkish EFL learners are considered, the participants did not practice speaking. This might be related to conditions they are in. For example, they may not simply have the opportunity of 'talking to foreigners in English.' This was congruent with Yıldırım's (2005) assumption that participants do not have access to these resources. Here, the argument by Chan, Spratt, and Humphreys (2002, p 256) needs to be taken into consideration. They believe that "teachers seeking to promote autonomous behavior in the form of outside-class activities may have

more immediate success if they build on those that students already engage in, rather than on those activities which would require students to change their attitudes or behavior (p. 256)". Similarly, Balçıkanlı (2010) suggests teacher educators should encourage their STs to engage in out-of-class tasks.

The autonomy issue in language teaching should be handled skill-specifically as well. In other words, learner autonomy should be investigated within reading, listening, writing, and speaking separately. Although the participants in this study have not yet started teaching English in real environments, it was important to familiarize them with VWs because it is evident in the literature that, teachers can create a more suitable autonomous environment for their learners only if they know their readiness for their own learner autonomy. The statements of STs clarified a match between their English proficiency and speaking skills. The findings suggest that STs believe that they can contribute to their speaking skills if they increase their WTC. When they were asked about their language learning habits, it was seen that they mainly mentioned plans related to English proficiency, especially speaking skills. More specifically, STs find themselves competent in reading, listening, and grammar. They feel incompetent in speaking. This leads them to have plans to improve speaking skills. This is also related to the entry and exit requirements of the foreign teacher education programs in Turkey. EFL STs take exams as entry and exit requirements of the teacher education programs. These tests do not assess listening, writing, and speaking skills. Therefore, STs have problems with writing and speaking when they start studying in ELT departments (Sert, 2010). The problems are not limited to the program. Even after graduation, due to the negative washback of the national English exams (ELT program entry and profession entry exams), STs have problems with speaking. This explains why STs have many problems with speaking and plans for improving English proficiency (especially speaking skills). Johnson (2006) argues that in VW learning environments, the communicative dimension of a language is at the center. Consequently, using VWs with these students was important to attach the necessary significance to communication.

Another major finding of this study suggests that most of the participating STs are not satisfied with the language education they receive for their speaking. Investigating the background characteristics, socio-cultural values, and pedagogical beliefs of entering student teachers, Aksu et al. (2010) found that students entering education faculties

generally come from families of lower-middle socio-economic status. Many STs do not have an opportunity to go abroad and practice the language orally. SL platform was useful to introduce an environment in which they felt they communicated abroad.

The findings have some implications for the 21st-century skills and language teaching. SL helped STs of this study to use 21st-century skills such as collaboration and communication, finding and assessing information, and creativity. STs, in this study, indicated in interviews that they believed VWs could be used to address 21st-century skills. They complained about their being taught grammar rules instead of talking and communicating in the classroom. Therefore, employing VWs in teacher training provides a venue through which the pedagogue-in-training can experience not only TBLT instructional experiences but also the virtual environments inhabited by today's language learners (Cheong, 2010). Overall, VWs have the potential to be an important educational platform in the 21st century. By using these tools, EFL teachers can establish a language learning context in which learners are assisted with practicing the target language by interacting with each other (Cheng et al., 2010). Furthermore, developing language resources, negotiating meaning, and participating in meaningful intrapersonal or interpersonal exchange can be conducted via these tools.

After the experiment, STs' views about their WTC changed. They reported that being in an environment in which they felt like they were in an English street and speaking in the real setting, helped them to increase their WTC, communicate in a realistic environment, and communicate for real purposes. This is also related to the ecological perspective of language learning in SL. Panichi et al. (2010) discuss participation and language learning in VWs by introducing an ecological model. This perspective posits that the user of a virtual environment interacts not only with the environment but becomes part of the environment. It sees systems as open, complex and adaptive comprising elements which are both dynamic and interdependent. For this perspective, all learning is contextualized and situated in an environment. It sees the student both as a part of the environment and one of the factors in determining subject matter. This model is also in line with the sociocultural theory as it gives significance to meaningful participation in human events and meaning construction.

The purpose of the present study was to explore the effectiveness of the MUVE SL on the WTC, motivation, and anxiety of the student teachers of English studying at a state

university in Turkey. All the data collected through introspective interviews, focus group and individual semi-structured interviews the participants were asked about their reasons to choose SL. When all the data were analyzed, and the student teachers' comparisons of SL and classroom were considered, the NATURAL vs. MATURAL model emerged. From the classroom perspective, this analysis revealed the dimension of the model named MATURAL (Mannered Speech, Anxiety, Time-related issues, Unattractive Environment, Restricted risk-taking, Artificial environment, and Limits). When the advantages of the SL are considered the NATURAL dimension (Natural environment, Attractive Environment, Time-free environment, Risk-taking, Liberating) emerges. This model can be checked via quantitative methods under the model studies that explain WTC, motivation, and communication anxiety in English. While the NATURAL dimension explains the nature of communication in SL, the MATURAL dimension highlights the shortcomings of the classroom for real-life tasks in EFL classrooms. In a study, Kim (2009) examined whether language anxiety and motivation of 57 Korean college students showed differences in two courses: a reading and a conversation course. A survey was used to measure anxiety, and the data were analyzed via MANCOVA. An item analysis of the anxiety measure was conducted to see whether the difference is a result of different classroom tasks and procedures. The results showed that higher anxiety in the conversation occurred due to spontaneous speaking, speaking in front of a class, and fear of negative evaluation. It can be concluded that this factor also appeared in the MATURAL model. Therefore, the findings of Kim (2009) supports this model as well.

The NATURAL vs. the MATURAL model also shed light on the issues on having a chance to communicate and willingness to communicate in EFL contexts. Previous research on Turkish EFL learners showed that Turkish learners need more stress-free environments to participate orally (Jackson, 2002; Öz, 2014). The participants of this study repeatedly mentioned that they find the classroom environment artificial to communicate in the target language. This was highlighted with "Artificial Environment" in the MATURAL model and with "Natural Environment" in the NATURAL environment. The participants believe that they have no problems with having a chance to communicate in the classroom. Their willingness to communicate was affected by their unwillingness to participate real-life communication in the classroom. The findings suggest that Turkish learners have no problems with having a chance to communicate but a willingness to

communicate. Together with the “Artificial Environment”, the MATURAL model explains the other factors that make Turkish EFL student teachers unwilling to communicate.

When the findings of this study are considered regarding language teacher education, it can be concluded that SL virtual environment created an environment in which the tenets of socio-cultural theory and constructivism were utilized. Vygotsky (1978) argues that learning occurs on a social level and then on an individual level by emphasizing the importance of social influence and experience on human development. According to Vygotsky, learning is being embedded in social events through interaction with people, objects and events in the environment it occurs (Vygotsky, 1986 as cited in Kublin et al. 1998). Constructivism provides a fruitful framework to understand individual concept change, however, social perspective on teachers’ work should be considered as ‘learners make their own sense of the world but they do so within a social context and through social interactions’ (Williams & Burden, 2000, p. 28). According to Nunan (1999), learners do not have positive views on speaking English in traditional classrooms because active communication in these classrooms is rare. Therefore, English teachers often do not teach their classes in English due to their low language proficiency. This study was significant to teach importance of communicative language teaching to STs of English.

In today’s knowledge-driven society, in order to achieve higher levels of learning among language learners, foreign language teachers are expected to keep up to date with the recent developments in the field and to review and evaluate their teaching skills constantly. Graduates after accomplishing the requirements of the four-year ELT education program enter the profession of teaching. However, just at the beginning of their teaching profession, they already have some predictions about the environment they are going to work in. More specifically, language teachers have a set of beliefs, philosophies, and expectations when they come to any teaching situation (Carter & Elseth, 2009). The literature shows that language teachers’ decisions to use different materials, activities, or methodologies are shaped by their beliefs and their experiences in the classroom. According to Dickey (2005), “learners construct understandings by interacting with information, tools, and materials, as well as by collaborating with other learners” (p. 441). In the constructivist view, it is believed that learners associate meaning with real-life experiences and they create various meanings (Creswell, 2007). According to Lin and Hsieh (2001), “constructivist model calls for learner-centered instruction: individuals are

assumed to learn better when they are forced to discover things themselves rather than when they are instructed.” Carter and Elseth (2009) believe that, experiences shape language teachers’ teaching, and when they are introduced new tools or methods, they feel uneasy. That is why, teachers should be confident about using technological tools learning the benefits of the tool (Hong, 2010). This is quite important with emerging technologies as they have some challenges. SL experience was important for STs because it is possible that their teaching will be affected by this experiment.

Another implication for language teacher education is related the experiential learning theory. The implications of this theory for foreign language teacher education are that it offers a flexible and helpful framework for both formal and informal teacher learning. A structure for the design of teacher learning activities is suggested. In ELT, it has been recognized for some time that teacher learning is very much about shared experiences. While STs are elaborating on their experiences, they generate new ideas and want to experiment them and put them into practice. Teachers need to know that experience alone is not sufficient for learning to take place. It needs to be complemented by interpretation of the experiences getting involved in a variety of tasks such as observation, analysis, discussion and reading in order to engage constructively with teaching experience and feedback. One of three main teacher education models (namely the craft model, the applied science model, and the reflective model) might be grounded on this reflective cycle, also strongly supported by Wallace (1991). This model of teacher education emphasizes experience along with knowledge-base of the profession. This knowledge base is called “received knowledge” and knowledge of experience is called “experiential knowledge” by Wallace (1991). In his model of teacher education, reflection is the key factor in making sense of experiences. This model also stresses the importance of the continuing cycle of practice and reflection, which ultimately leads to professional development. To conclude, VWs might be useful in construction of the above-mentioned knowledge-base of the profession, in which experience is emphasized.

CHAPTER V

CONCLUSIONS

The purpose of the present study was to explore the effectiveness of using a VW on the WTC, motivation, and communication anxiety of the STs of English studying at a state university in Turkey. The STs were given three questionnaires (WTC, motivation, and communication anxiety) and interviews (introspective, focus-group, and semi-structured) were conducted with experimental group participants. There were two groups: control and experimental. Control group participants conducted ten real-life tasks in the classroom as role-plays and drama. Experimental group students, on the other hand, conducted the same tasks in the VW SL. This chapter begins with a summary of the findings. Following this, pedagogical implications and suggestions for further research are provided.

5.1 Summary of the Findings

The findings regarding the first research question indicated that there was a statistically significant difference between control and experimental group participants. Hence, it was concluded that SL was found to have a significant effect on WTC of STs of English in the present study. In other words, STs' WTC increased at a statistically significant level after using SL. This is confirmed by the qualitative results as well. The content analysis of the data showed that the characteristics of SL such as natural environment, realistic places, anxiety-free environment, excitement and no time-related issues increased the WTC of the STs.

For the second research question regarding the possible effects of SL on pre-service Turkish EFL teachers' motivation, the statistical analysis revealed no statistically significant difference between the groups. In other words, the improvement in the motivation levels of the groups was not statistically significant after the study. Although the quantitative results yielded non-significant difference between the groups, it was seen in the qualitative analysis that SL was also useful in increasing integrative and extrinsic motivation. As for the characteristics of SL that increased motivation, similar themes that appeared in research question one were found. These were: natural environment, realistic places, anxiety-free environment, and excitement.

The results of research question three showed that SL had a significant effect on communication anxiety. Besides the overall decrease in student teachers' anxiety levels as displayed in the results of statistical analysis, throughout the content analysis, participants mentioned several characteristics of SL that influence their communication anxiety in English. The themes were the stress-free environment, no time-related issues, no negative facial expressions, and natural environment.

The fourth research question was qualitative in nature, which explored the opinions of STs about the use of SL for real-life tasks. Some different themes were identified regarding the issues associated with conducting real-life tasks within SL which included positive views on SL, comparison of classroom and SL, and technological difficulties associated with SL. The major themes that appeared in positive views on SL were perceived competence in L2, L2 anxiety, security, excitement, and responsibility. As for the comparison of classroom and SL, the MATURAL vs. the NATURAL model emerged. Last, under the category of negative attitudes, the themes of technical issues(internet, voice, avatar movement) and no help of body language were found.

One of the important findings from this study was that conducting real-life tasks in SL affects STs' WTC, motivation, and communication anxiety. Another major finding is the NATURAL vs. the MATURAL model that explains the nature of communication in SL and in the traditional classrooms. The MATURAL dimension of the model also explains the avoidance of speaking in the regular language classrooms. Even though this research did not aim to discover the effects of using tasks on WTC, motivation, and communication anxiety, an implication of the research is the contribution of task-based learning. Tasks were successful in involving participants in active participation which was reflected in the

transcripts. This research showed that STs could practice communication in SL without feeling negative affective factors. It also shows that VWs can become useful tools for learning and teaching of English because the interactions within the environment and STs' positive views on it are promising authentic and effective communication.

5.2. Pedagogical Implications

The features of SL contributed a lot to STs participated in this study. It can be concluded from the qualitative data analysis that the study revealed significant findings for both language education and language teacher education fields. As for the language education part, it can be concluded from the study that VWs are effective tools in changing STs negative views in a positive way. The participants as language learners were given a chance to practice speaking for real-life purposes. They stated that they had the chance to communicate in a relaxing 3D virtual environment. It is possible to say that since VWs increased their WTC and motivation and decreased communication anxiety, they felt more capable of communicating in English. Consequently, it can be deduced that VWs could be used with VWs of English.

The findings also have some implications for language teacher education. It can be concluded from this study that SL created an environment in which STs utilized the tenets of socio-cultural theory and constructivism. Vygotsky (1978) argues that learning occurs first on a social level and then on an individual level by emphasizing the importance of social influence and experience on human development. In today's knowledge-driven society, in order to achieve higher levels of learning among language learners, foreign language teachers are expected to keep up to date with the recent developments in the field and to constantly review and evaluate their teaching skills. After accomplishing the requirements of the four-year ELT education program, graduates enter the profession of teaching. However, even at the beginning of their teaching profession, they already have some predictions about the environment they are going to work in. According to Dickey (2005), "learners construct understandings by interacting with information, tools, and materials, as well as by collaborating with other learners" (p. 441). According to Lin and Hsieh (2001), the "constructivist model calls for learner-centered instruction: individuals are assumed to learn better when they are forced to discover things themselves rather than

when they are instructed.” Therefore, teachers should be confident about using technological tools learning the benefits of the tool (Hong, 2010). This is quite important with emerging technologies as they have some challenges. Taking all these into consideration it could be suggested that language teacher education programs should integrate technology more effectively.

Another implication for language teacher education relates to the theory of experiential learning. The implications of this theory for foreign language teacher education is that it offers a flexible and helpful framework for both formal and informal teacher learning. In ELT, it has been recognized for some time that teacher learning is very much about shared experiences. While STs are elaborating on their experiences, they generate new ideas and want to experiment them and put them into practice. To conclude, VWs might be useful in the construction of the above-mentioned knowledge-base of the profession, in which experience is emphasized. Employing VWs in teacher training provides a venue through which the pedagogue-in-training can experience not only TBLT instructional experiences but also the virtual environments inhabited by today’s language learners (Cheong, 2010). Overall, VWs have the potential to be an important educational platform in the 21st century. By using these tools, EFL teachers can establish a language learning context in which learners are assisted with practicing the target language by interacting with each other (Cheng et al., 2010). Furthermore, developing language resources, negotiating meaning, and participating in meaningful intrapersonal or interpersonal exchange can be conducted via these tools.

Another finding of the study was that student teacher subjects appeared to elicit a high degree of participation and autonomy. The tasks were useful in eliciting active participation which was reflected in the interviews and researcher’s observation. First of all, as SL increases participants’ WTC and motivation, it lowers anxiety and promotes positive views on EFL learning, it can be concluded that VWs provide opportunities to solve problems related to affective side. Second, SL STs engagement and participation in EFL classes can be increased by using SL. Simulations conducted in the VW of SL have also had overall positive effects on STs’ communication anxiety levels.

STs are less motivated and have a high degree of anxiety with specific respect to speaking when they enter the English teaching programs in Turkey as Turkey has only one method of assessment in the entrance to foreign language teacher education programs. STs’

grammar, vocabulary, and reading skills are assessed, but there is no assessment of the listening, writing and speaking skills. In the exit exam taken by the graduates of education faculties, there is no assessment of productive skills as well. This situation directs STs of ELT programs to focus on learning of grammar and vocabulary. As a result, STs have problems with writing and speaking when they start studying in ELT programs (Sert, 2010). As STs have problems mostly with productive skills, this shows that there are several issues that are closely related to policy makers. This study yielded that most of the subjects believe that their communication competence is not satisfactory. Therefore, listening, writing, and speaking skills should be assessed in entry and exit exams of ELT programs in Turkey.

In the introspective interviews, focus group, and individual semi-structured interviews, participants were asked about why they volunteered to choose SL instead of attending regular classroom sessions. Some preferred SL because they were more comfortable in SL; others enjoyed the topic-specific setting of SL. From the classroom perspective, this analysis can be discussed under the MATURAL dimension of the model. The NATURAL dimension suggests that STs should be given opportunities to communicate in natural and stress-free environments. These suggested models can be checked via quantitative methods under the model studies that explain WTC in English.

5.3. Recommendations for Further Research

In this study, the effects of SL on WTC, motivation and communication anxiety of first-year EFL STs were investigated. Ten real-life tasks were used in the study. The study utilized free islands in SL. This study showed that SL is a worthwhile venue for communicating just like in the real-life. However, taking the settings and the context of the research as well as the observations of the researchers into consideration, some suggestions can be given to the researchers of future studies. First, future research may be conducted with second and third-year student teachers. A replication of the study with some other participants from different levels of education would make the findings stronger. Second, native speakers of English can be invited in a similar study. Some of the participants said that if they had available native speakers in the study, it would be better for them. Third,

considering the availability of funding, future researchers might consider purchasing or hiring islands in SL and create a space exclusively for education and research activities.

There are numerous model studies on the L2 WTC. This study is the first to suggest a model that explains the low engagement of learners in traditional classroom activities. Also, the model explains the nature and advantages of communication in SL. The two dimensions of the model discussed in this study can also be quantitatively tested. The dimensions discussed in the NATURAL vs. the MATURAL model can be re-evaluated according to the results of quantitative studies. According to such findings, speaking course syllabus can be prepared. This suggested model can be checked via quantitative methods under the model studies that explain WTC in English as well.

The users need to have enough practice time to learn the basic functions of SL. It should be noted that the aim is not replacing technology traditional teaching. However, it should also be noted that in this century, education cannot be considered without computers and Internet. Similarly, although SL does not replace real life, “users find meaning and experience in a type of reality that has ramifications for their actual world beyond identity exploration and social interaction” (Jones, 2005, p. 22). Savin-Baden (2008) reminds the need to integrate real life and SL learning activities, as well as enable unstructured spaces for interaction. So, it can be recommended to supplement one environment with the other. This might be useful because the anonymity factor during the tasks allowed STs to communicate in an encouraging and less threatening environment.

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APPENDICES



APPENDIX 1: BACKGROUND INFORMATION QUESTIONNAIRE

Please, answer the following questions. The purpose is to provide the researchers of the research with background information, your language learning and computer experience. Could you please complete this survey as honestly as possible? We assure that your responses will remain confidential.

Name	:
Age	:
Gender	:
GPA	:

- 1- At what age did you start studying English?
- 2- Have you studied another language other than English and Turkish?
- 3- Have you ever traveled to or lived in a country where English is spoken as a native language?
If yes, which country?: How long did you stay?:.....
- 4- How do you perceive your current proficiency level in English?
 - a. Reading: elementary / intermediate / advanced ?
 - b. Listening: elementary / intermediate / advanced ?
 - c. Writing: elementary / intermediate / advanced ?
 - d. Speaking: elementary / intermediate / advanced ?
- 5- How do you perceive your current Willingness to Communicate level in English
a- low b- moderate c- high
- 6- How do you perceive your anxiety level in English?
a- low b- moderate c- high
- 7- How do you perceive your motivation level in English?
a- low b- moderate c- high
- 8- What is the most anxiety-provoking skill for you?
a- Reading b- Listening c- Writing d- Speaking

9- Do you have a computer with Internet access that is available for your use at your home/dormitory?

a- Yes b-No

10- Have you had a computer training program before?

a- Yes b.No

11- How do you rate your computer proficiency level?

a- Low b. Medium c.High

12- How much time do you spend a day using computers?

a- less than 1 hour b- 1-3 c- 3- 5 d- more than 5

13- How often do you use the internet to learn English?

a-Never b-Rarely c-Sometimes d-Often e-Always

14- For which purposes do you usually use the Internet?

a- Homework (Research) b- News d-Music e- f- Games

g-Other (please specify).....

15- Do you play computer or video games?

If yes, please write the name of the games

16- How often do you play computer or video games in a week?

a- Never b- Less than 1 hour c--1-3 hours d-3-5 hours e-More than 5 hours

17- How long have you been playing computer or video games?

a- Never b-Less than 1 year c-1-3 years d-3-5 years e-More than 5 years

18- I am familiar with avatars.

a-Strongly Disagree b-Disagree c-Neutral d-Agree e-Strongly Agree

19- I am familiar with Second Life.

a-Strongly Disagree b- Disagree c- Neutral d- Agree e-Strongly Agree

If you choose d or e; How long have you been using Second Life?

Why do you use Second Life?

20- Is there any specific point you want to add?

APPENDIX 2: WILLINGNESS TO COMMUNICATE QUESTIONNAIRE

Here are 12 situations in which you might choose to communicate or not to communicate. Please indicate the percentage of time you would choose to communicate in each type of situation below (0 = never communicate , 100 = always communicate).

0%	50%	100%
I never communicate	I sometimes communicate	I always communicate

- _____ 1. Present a talk to a group of strangers in English.
- _____ 2. Talk with an acquaintance while standing in line in English.
- _____ 3. Talk in a large meeting of friends in English.
- _____ 4. Talk in a small group of strangers in English.
- _____ 5. Talk with a friend while standing in line in English.
- _____ 6. Talk in a large meeting of acquaintances in English.
- _____ 7. Talk with a stranger while standing in line in English.
- _____ 8. Present a talk to a group of friends in English.
- _____ 9. Talk in a small group of acquaintances in English.
- _____ 10. Talk in a large meeting of strangers in English.
- _____ 11. Talk in a small group of friends in English.
- _____ 12. Present a talk to a group of acquaintances in English.

APPENDIX 3: MOTIVATION QUESTIONNAIRE

Dear Participant,

This questionnaire was designed to find out EFL student teachers' English language learning motivation level. Please indicate how much you agree or disagree with the following statements by putting an "X" in the box that best describes the extent to which you agree or disagree with the statement.

No	ITEMS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	It is really great to learn English.	1	2	3	4	5
2	I learn English because I want to understand all the English I see and hear.	1	2	3	4	5
3	I want to learn English to be able to know all aspects of English.	1	2	3	4	5
4	I think learning English is a waste of time	1	2	3	4	5
5	I learn English to be able to feel comfortable while talking to native speakers of English.	1	2	3	4	5
6	Learning English is really enjoyable for me.	1	2	3	4	5
7	I learn English to meet people from all over the world.	1	2	3	4	5
8	I learn English to be able to take part in activities of other cultural groups.	1	2	3	4	5
9	I want to study English almost every day to be able to keep up to date with the language.	1	2	3	4	5
10	I want to learn English because I really enjoy the activities of my classes.	1	2	3	4	5
11	I want to learn English much better to be able to make it natural for me.	1	2	3	4	5
12	I do not have much interest in learning English.	1	2	3	4	5
13	I would like to study more English in the future	1	2	3	4	5
14	I look forward to learning English much better	1	2	3	4	5
15	I learn English to be able to read English books	1	2	3	4	5
16	I learn English to be able to understand English films video, television and radio programmes	1	2	3	4	5
17	I really enjoy spending time in my classes	1	2	3	4	5
18	I do not enjoy learning English	1	2	3	4	5
19	I learn English to be able to interact with more people	1	2	3	4	5
20	I learn English to be able to understand the more complex aspects of English	1	2	3	4	5
21	I learn English to be able to get in touch with people from all over the world	1	2	3	4	5

APPENDIX 4: COMMUNICATION ANXIETY QUESTIONNAIRE

Directions: Below are 12 situations in which a person feels different degree of anxiety. Please indicate in the space below what degree of anxiety you might feel in the following situations.

Examples:

0. Ex. 1. Talk to a stranger (if you **do not** feel anxiety at all).

50. Ex. 2. Talk to a stranger (if you feel somewhat anxiety).

90. Ex. 3. Talk to a stranger (if you usually feel anxiety).

0% _____ 50% _____ 100%
I **do not** feel anxiety at all I feel somewhat anxiety I always feel anxiety

The following situations can occur in your country or abroad. If you have not had the experience, try to imagine how you might feel.

- _____ 1. Have a small-group conversation in English with acquaintances.
- _____ 2. Give a presentation in English to a group of strangers.
- _____ 3. Give a presentation in English to a group of friends.
- _____ 4. Talk in English a large meeting among strangers.
- _____ 5. Have a small-group conversation in English with strangers.
- _____ 6. Talk in English in a large meeting among friends.
- _____ 7. Talk in English to friends.
- _____ 8. Talk in English in a large meeting with acquaintances.
- _____ 9. Talk in English to acquaintances.
- _____ 10. Give a presentation in English to a group of acquaintances.
- _____ 11. Talk in English to a stranger.
- _____ 12. Talk in English to a small group of friends.

APPENDIX 5. FOCUS GROUP INTERVIEW QUESTIONS

1. Can you tell me about your general feelings towards using SL for this task?
2. What do you think about the task? Did you like it?
3. Compared to classroom, what were the most interesting things/advantages to do this task in SL?
4. Compared to classroom, what were the most difficult things/disadvantages to do this task in SL?
5. Do you have any suggestions for a better use of this task in SL?
6. Did yo face any challenges to complete the task? How did you solve the problems?
7. Please tell me anything you want to say about SL environment with specific to this task.

APPENDIX 6. SEMI-STRUCTURED INTERVIEW QUESTIONS

1. Can you tell me about your general feelings towards using SL during the tasks?
2. How did you feel when you talked with your avatar?
3. What do you think about your avatar?
4. How was your task team? What do you think about your team members?
5. What do you think about the tasks you conducted?
6. What were the most interesting things/advantages in SL?
7. What were the most difficult things/disadvantages in SL?
8. Compared to classroom, did you like communicating in SL more or not? What was the difference between regular classroom and SL?
9. Do you have any suggestions for a better use of SL?
10. Did you face any challenges to complete the task? If so, how did you solve the problems?
11. How do you evaluate your Willingness to Communicate in English before using SL?
12. Did you observe any changes in your WTC in English after using SL? If so, what characteristics of SL influenced your WTC in English?
13. How do you evaluate your English communication anxiety before using SL?
14. Did you observe any changes in your English communication anxiety after using SL? If so, what characteristics of SL influenced your anxiety in English?
15. Can you please evaluate your motivation towards speaking English before using SL?
16. Did you observe any difference in your motivation after using SL? If so, what characteristics of SL influenced your anxiety in English? If so, what characteristics of SL influenced your motivation towards English?
17. Please tell me anything you want to say about SL environment.

APPENDIX 7: WEEKLY EVALUATION FORMS

Name:

Task:

Date:

1. What was the task you completed? In this week's session, what did you like most? What did you find important this week?

2. How did you feel communicating in English in Second Life? Which activity or which of the activities did you find the most successful?

3. Would you like to change anything about this week's task? If yes, what would you like to change?

4. What are your positive experiences in Second Life?

5. What are your negative experiences in Second Life?

6. Further comments on the session ...

APPENDIX 8: A CHECKLIST FOR THE SELECTED TASKS

Dear Professor,

I developed a scale that explores the appropriateness of the tasks to be used in a research study I will conduct with freshman students of ELT department. I adopted these tasks from previous studies and asked participants to choose among options. I kindly ask you to evaluate the appropriateness of each task after checking the syllabus.

If you think that the task can be used with minor changes, please write your suggestions.

TASK 1: Orientation	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Suggestions/Comments
1. The task can arouse learners' interest.						
2. The focus of the task is on the meaning.						
3. The task has a specific goal.						
4. The success in this task can be evaluated in terms of the process.						
5. The success in this task can be evaluated in terms of the product.						
6. The emphasis is on communication.						
7. The task relates to real life.						
8. The difficulty of the task is suitable for the level of the learners						
9. The sub-tasks are appropriate.						
10. The task plan is doable.						
11. The tasks are suitable for learners' needs.						
12. The tasks provide opportunity for learners' creativity.						
13. The task improves cooperation and collaboration among students.						
14. The task can increase learners' exposure to natural English.						

APPENDIX 9. THE 10 TASKS CONDUCTED WITH EXPERIMENTAL AND CONTROL GROUP STUDENTS (THE TASK SYLLABI)

1.Orientation & Greetings	5.Shopping & Clothing	9.Health
2.Adventure & Travelling	6.Art-Culture	10.Cinema&Theatre
3.Foods	7.Sports-Games	
4.Jobs	8.Music	

Task 1: Orientation, Greeting

	SL Group	Classroom Group
Title	Orientation	Orientation
Time	90 minutes	90 minutes
Aim	To familiarize students with Second Life. To	To familiarize students with University
Functions of the Language	familiarize students with University life. Orientation to the university, city Functions: -Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information -Giving Directions	life. Orientation to the university, city. Functions: -Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information -Giving directions
Places	-Orientation Island in SL, Islands discovered by the students, Places in which learners will attend the activities to fulfill the task, Virlantis	Classroom
Pre-Task	1.Choosing the best avatar, Changing Avatars 2.Practicing Voice chat with Avatar movement and gestures 3.Students will be asked to brainstorm the language and linguistic features they need to complete this task. 4.Talking about university life (looking for campuses in SL) 5.Teleport and meet other SL residents. 6.Offering teleport	1. Get to know classmates 2.Talk to your friend next to you about university life 3.Students will be asked to brainstorm the language and linguistic features they need to complete this task.
Procedure (Actual Task)	1.Individual Practice (Visiting at least 5 university campuses in SL, and 5 other islands they want to see) Describing the places they have seen 2.Discussion (Sts will ask questions like)	1.Individual Practice (Prepare an orientation program of your university). 2.Information gap activities: -Students will prepare questions for their conversation partners. The questions will

	-What was the best place you visited? How did you find it? Please tell your experience. -They will discuss these issues in the places they want. Find someone who: Get to know the classmates 3.Learn English phrases/idioms in greetings. Compare and contrast cross-cultural differences/similarities in greetings. 4. Visit a virtual campus and role play an exchange student and a student of your university and discuss the possible problems and solutions to the problems. E.g. Give information about the student affairs, conference halls, restaurants, dean's office, etc.	help to know each other. They will ask and answer these questions. 3.Discussion topics (Students will ask questions like): -Tell me about your language learning. What are the interesting things for you? 3.Learn English phrases/idioms in greetings. Compare and contrast cross-cultural differences/similarities in greetings. 4. Role play an exchange student and a student of your university and discuss the possible problems and solutions to the problems. E.g. Give information about the student affairs, dean's and rector's offices etc.
Post-task	Opinion-gap activities: -Comparing and discussing with interlocutors the differences of places visited in SL. 1.Tell your group about your experience in SL? Do you like it?	Reviewing the task procedure. Focusing on the functions.
Homework	Students will take pictures of 10 places they liked in SL. They will describe these places	Describe the places and events you come across while going to your home or dorm.

Task 2: Adventure & Travelling

	SL Group	Classroom Group
Title	Adventure & Travelling	Adventure & Travelling
Time	90 minutes	90 minutes
Aim	-Asking Questions -Expressing preferences	-Asking Questions -Expressing preferences
Functions of the Language	-Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information -Comparing and discussing with interlocutors the differences of places visited SL	-Planning activities -Exchanging opinions Making Decisions -Asking for & providing information
Sub-Tasks	Reserving a Holiday, Organizing A Tour, Checking in at an Airport, Reception Talk	Reserving a Holiday, Organizing A Tour, Checking in at an Airport
Places	SL classroom, Hotels in SL, Places in SL Golden Bridge, Eiffel Tower, Grand Canyon, Home Garden	Classroom
Pre-Task	1-STs will be asked about their last trip & holiday. 2-STs will be asked to express their feelings about their last holiday or trip. 3-Their transportation choices will be discussed. Advantages and disadvantages of various forms of transportation will be discussed by teleporting to the places where the vehicles can be seen. 4-STs will work in pairs and talk about a holiday and possible destinations on the way. 5-Students will be asked to talk about what they need to know before they decide on a place for their holiday. 6-They will be asked to think about the hotel type, how to reach the destination, the duration, activities, the budget, and shopping. Students will be guided by the teacher. Students ideas will be written on the board in SL. Students will teleport to the places they want. 7-A text will be presented in the active board about the most preferred holiday destinations in the World .	1-Students will be asked about their last trip & holiday. 2-They will be asked to express their feelings about their last holiday or trip. 3-Their transportation choices will be discussed. Advantages and disadvantages of various forms of transportation will be discussed with pictures. 4-Students work in pairs and talk about a holiday and possible destinations on the way. 5-Students will be asked to talk about what they need to know before they decide on a place for their holiday. 6-They will be asked to think about the hotel type, how to reach the destination, the duration, activities, the budget, and shopping. Students will be guided by the teacher. Students ideas will be written on the board. 7-A text will be presented in the board about the most preferred holiday destinations in the World .
Procedure (Actual Task)	1- Each student will take turns to play the role as a professional tour guide, owner of an agency, and take the class to the places in SL. 2- Students who are the tourists will have the chance to ask their questions to their “tour guide” questions and take pictures of those tourist sites along the way. 3- Groups will prepare a holiday plan.	1.Each student will take turns to play the role as a professional tour guide or a holiday maker. 2. Students who are the tourists will have the chance to ask their questions to their “tour guide” questions and take pictures of those tourist sites along the way. 3. Groups will present their trip to the entire class

4- Groups will ask their friends to teleport to the places they think in their trip.
 5- They will work in groups of 4 and try to find a holiday place.
 -They will meet tourists at the airport
 -Give information on the way to the hotel
 -Help tourists with registration
 -Meet tourists at the hotel
 -Beginning the tour
 -Take tourists to the hotel's places
 6- Sts will teleport to their hotel and in a role play they will pick up a problem that is likely to happen in a hotel and find ways to solve it.
 7- They will teleport to places where they can do ice-skating, surfing, horse riding, etc. and talk about their feelings .
 8-They will watch video clips about famous festivals in the world and fill out the key information on a notecard. They will teleport those countries and make discussions.
 9-Students will think of a place in a country where English is spoken as the native language. What do they know about the place?
 11-There will be trips to the SL shopping malls and restaurants.
 12- Sts will prepare a tour poster.

4. They will work in groups of 4 and try to find a holiday place.
 They will talk about the problems they might encounter in their hotels.
 -They will meet tourists at the airport
 -Give information on the way to the hotel
 -Help tourists with registration
 -Meet tourists at the hotel
 -Beginning the tour
 -Take tourists to the hotel's places
 5. They will compare holiday celebrations around the world (Valentine's Day & New Year). Notecards will be provided for students to take notes when they interview their partners.
 6. They will watch video clips about famous festivals in the world and fill out the key information on a notecard.
 7. They will bring celebration pictures from other countries.
 8. Sts will prepare a tour poster.
 9. Homework: They will bring a poster with the cultural attire they will choose. Write a postcard to your friend and talk about it

Post-Task

1.Students will discuss about the places they went in SL.
 2.Review of the task

Review of the task
 -Students' guesses and the report will be matched.

Task 3: Foods & Drinks

	SL Group	Classroom Group
Title	Dining at a restaurant	Dining at a restaurant
Time	90 minutes	90 minutes
Aim	Functions:	Functions:
Forms and Functions of the Language	-Asking Questions -Expressing preferences -Ordering food & drinks -Exchanging opinions -Making Decisions -Asking for & providing information	-Asking Questions -Expressing preferences -Ordering food & drinks -Exchanging opinions -Making Decisions -Asking for & providing information
Sub-tasks	Ordering meal, overcoming a problem that might occur at a restaurant	Ordering meal, overcoming a problem that might occur at a restaurant
Places	SL restaurants,	Classroom
Pre-Task	Finding a restaurant in SL that sts would like to take their friends next time. Eating habits of countries Popular cousines all around the world (Italian, French, Middle Eastern, Turkey) Visiting SL restaurants	Eating habits of countries Popular cousines all around the world (Italian, French, Middle Eastern, Turkey)
Procedure (Actual Task)	1. Talk about the dishes and meals served in a restaurant (e.g. appetizers, main dish, and desserts). Sts will find out the similarities and differences between menus. 2. Discuss what combinations can be served at a restaurant and role-play as customers, waiters & waitresses, and restaurant owners. 3- Sts will play a food game, role-play). 4. Food game: Work in a team to describe the food items on the display board without naming the foods. The other team has to guess the food item base on your description. 5. Role play in the pizzeria using Holodeck. Students take turns to play servers taking orders and customers ordering food on the menu.	1. Talk about the dishes and meals served in a restaurant (e.g. appetizers, main dish, and desserts). 2. Discuss what combinations can be served at a restaurant and role-play as customers, waiters & waitresses, and restaurant owners. 3- Sts will play a food game, role-play). 4. Food game: Work in a team to describe the food items on the display board without naming the foods. The other team has to guess the food item base on your description. 5. Role play in the classroom. Students take turns to play servers taking orders and customers ordering food on the menu.
Post-task	Opinion-gap activities: -Comparing and discussing with interlocutors the differences of places visited in SL. 1. Tell me about your experience in SL? Do you like it? Why? Or, why not?	Reviewing the task procedure.

Task 4: Jobs

	SL Group	Classroom Group
Title	Jobs	Professional Business Meeting
Time	90 minutes	90 minutes
Aim	Functions:	Functions:
Functions of the Language	-Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information	-Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information
Sub-tasks	Role playing jobs	Role playing jobs
Places	SL	Classroom
Pre-Task	Sts will talk about their parents' jobs. Find places in SL where you can talk with your group about jobs. Talking about jobs that can be done at home. Visiting job-related places in SL	Sts will talk about their ideal jobs. Talking about jobs that can be done at home.
Procedure (Actual Task)	1. Each group will have 5 minutes to go over their job titles and discuss the definitions. Each team takes turns to describe the job without naming it. The other teams have to use text chat to guess the job. Each team member will take turns to describe the job. 2. Interview your partner about the job he/she has based on the questions on a notecard. 3. Sts will scaffold job-related vocabulary (e.g., employee, employer) and discuss job qualifications. b. Each group creates a job ad in SL, including job title, job description, salary benefits and promotions. c. Simulated Job Interview: Each pair will take turns to play the role as the employer and employee (job seeker). Job seekers will go from one company to another and ask about the jobs in SL. They are only interested in the compensation package that the job offers and the employers are interested in finding employees who meet the requirements of the job. Employers will tell why they would like to hire someone 4. Sts will create a job in SL and decide the title, salary, promotions, etc.	1. Each group will have 5 minutes to go over their job titles and discuss the definitions. Each team takes turns to describe the job without naming it. The other teams have to use text chat to guess the job. Each team member will take turns to describe the job. 2. Interview your partner about the job he/she has based on the questions on a notecard. 3. Sts will scaffold job-related vocabulary (e.g., employee, employer) and discuss job qualifications. b. Each group creates a job ad in the classroom, including job title, job description, salary benefits and promotions. c. Job Interview: Each pair will take turns to play the role as the employer and employee. Job seekers will go from one company to another and ask about the jobs. They are only interested in the compensation package that the job offers and the employers are interested in finding employees who meet the requirements of the job. When they are done, employers will tell the class why they would like to hire someone
Post-task	Talking about future jobs. Reviewing the task procedure.	Talking about future jobs. Reviewing the task procedure.

Task 5: Shopping/Clothes/Gifts

	SL Group	Classroom Group
Title	Garage Sale- Shopping-Clothing	Garage Sale- Shopping-Clothing
Time	90 minutes	90 minutes
Aim	Functions:	Functions:
Functions of the Language	-Asking Questions -Expressing preferences -Exchanging opinions -Making Decisions -Asking for & providing information -Making descriptions	-Asking Questions -Expressing preferences -Exchanging opinions -Making Decisions -Asking for & providing information -Making descriptions
Sub-Tasks	Shopping, Garage Sale, Clothing	Shopping, Garage Sale, Clothing
Places	SL, Shops and stores in SL	Classroom
Pre-Task	Talking about dressing in different cultures Talking about the clothes Gift customs of the countries	Talking about dressing in different cultures Talking about the clothes Gift customs of the countries
Procedure (Actual Task)	1. Sts will talk about their avatar outfit and tell about how it represents their cultural clothing. 2. Visiting Virtual Morocco in SL and experience the culture and clothing. 3. Teleport to clothing shops to get some freebies for making your own clothes. 4. Making a TV program about shopping 5. A shopping role-play (shoppers-shopkeepers) -Computer shop owner -Newsagent -Bookshop 6. Students will create a garage including staff to sell. They will describe and sell them. 7. You have a gift card of (book store, computer store, clothing), decide with your partner what to buy. 5. Sts will role play a bargaining in SL store 6. Sts will create their own clothes shop conversation between a shop assistant and a customer and present it in the SL store 7. Sts will create his/her own label and try to convince the SL community for the fact that why his/her label(brand) is appropriate in terms of the price, quality....	1. Making a TV program about shopping 2. A shopping role-play (shoppers-shopkeepers) -Computer shop owner -Newsagent -Bookshop 3. Students will create a garage including staff to sell. They will describe and sell them. 4. You have a gift card of (book store, computer store, clothing), decide with your partner what to buy. 5. Sts will role play a bargaining in the classroom. 6. Sts will create their own clothes shop conversation between a shop assistant and a customer and present it to the class
Post-task	Reviewing the task procedure (What went well, what went bad?) Comparing and contrasting the e-shopping and standard shopping	Reviewing the task procedure(What went well, what went bad?). Comparing and contrasting the e-shopping and standard shopping

Task 6: Art & Culture

	SL Group	Classroom Group
Title	Visiting an Art Gallery	Visiting an Art Gallery
Time	90 minutes	90 minutes
Aim	Functions:	Functions:
Forms and Functions of the Language	-Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information	-Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information
Sub-tasks	Museum Trip, Visiting different countries	
Places	Museums and galleries in SL The Clock Museum, SL Historical Museum, Spaceflight Museum, International space-flight museum, Paris Underground Museum,	Classroom
Pre-Task	Individual work: Sts will find 5 museums in SL. They will prepare a question card about the museum in SL and ask their partners to speak for at least one minute.	Individual work: Sts will find out 5 museums via internet search. They will prepare a question card about the museum in SL and ask the class participants to speak for at least one minute.
Procedure (Actual Task)	1. Visiting a museum Sts will teleport to Museums in SL. 2. Sts will work with a partner to research what they notice in one of the exhibits in the museum and take some snapshots of what strikes them the most. 3. Sts will describe a museum they have visited. 4. Sts will present their findings with their partners. 5. Sts will choose a character from a painting or sculpture and talk about it	1. Bringing pictures of a museum Sts will bring the pictures of a museum. 2. Sts will work with a partner to research what they notice in one of the exhibits in the museum. 3. Sts will present their findings with their partners and report to class. 4. Sts will identify and bring in a copy of a piece of art by an artist from their country ask others to decide on a title for each piece of work in groups.
Post-task	Opinion-gap activities: -Comparing and discussing with interlocutors the differences of places visited in SL. Discussing on how culture shapes the art Reviewing the task procedure.	Discussing on how culture shapes the art Reviewing the task procedure.

Task 7: Sports/Games

	SL Group	Classroom Group
Title	Sports Games	Sports-Games
Time	90 minutes	90 minutes
Aim	Functions:	Functions:
Forms and Functions of the Language	-Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information	-Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information
Sub-tasks	Playing sports in SL, Reporting a sport competition	Reporting a sport competition
Places	Gyms, stadiums, and sport places in SL	Classroom
Pre-Task	Students learn the names of sport equipments They describe a sport, how it is played, the equipments used. Sts will discuss extreme sports.	Students learn the names of sport equipments They describe a sport, how it is played, the equipments used. Sts will discuss extreme sports.
Procedure (Actual Task)	1. Sts will work in pairs to discuss their favorite sports based on the questions on the notecard they prepare. 2. Play sports in Virtlantis Island (e.g., soccer, water jet-skiing, etc.). They will also take snapshots of their performances. 3. Role play: A press conference of a coach will be role-played. 3. A wheel of fortune game will be played in SL. 4. Sts will teleport to a place for skating. 5. Sts will conduct a puppet show	1. Sts will work in pairs to discuss their favorite sports based on the questions on the notecard they prepare. 2. Sts will prepare a TV program on sports commentating. 3. Role play: A press conference of a coach will be role-played. 4. A wheel of fortune game will be played. 5. Sts will conduct a puppet show
Post-task	Opinion-gap activities: -Comparing and discussing with interlocutors the differences of places visited in SL. Reviewing the task procedure Comparing and contrasting outdoor and virtual games: Which one is appealing? Why?	Reviewing the task procedure.

Task 8: Music

	Experimental Group	Control Group
Title	Music	Music
Time	90 minutes	90 minutes
Aim	Functions:	Functions:
Functions of the Language	-Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information	-Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information
Sub-tasks	Attending a concert in SL	Talking about musicians
Places	SL music halls	Classroom
Pre-Task	1.Sts will brainstorm the music genres. 2.Sts will pick one or two of their favorite bands and talk about them.. 3.Sts will discuss traditional and modern music.	1. Sts will brainstorm the music genres. 2. Sts will pick one or two of their favorite bands and talk about them. 3.Sts will discuss traditional and modern music.
Procedure (Actual Task)	1.Talk about different music genres in SL. 2.Tell students they are going to create a band, group, or a solo performer. They will then try to get a gig at a local venue. Go over what a gig and venue are in SL. 3. One ST will be a musician and the will be owners of venues looking for live performers in SL. They will talk venues what type of business they have (restaurant, bar, club, coffee shop, etc.). 4.Guess who I am: a. Identify the pictures of those famous celebrities in the display board and discuss with the class how much you know about them. b. Ask your partner who his/her favorite musician is (spin the bottle). 5.Music genres & instruments: a. Sts will teleport to Magnatune and work in pairs to write down as many music genres as possible. b. Try as many music instruments as you like. Choose 1 instrument to play and ask your partner to take a snap shot of you playing the music instrument. You'll also do the same for him/her. c. Interview your partner. Ask him/her why he'd like to play this music instrument. d. Come back to sandbox. Create a poster for your partner. Tell the class why he/she likes to play this instrument. 6. Sts will role play the famous TV program "The Voice"	1.Talk about different music genres in SL. 2.Tell students they are going to create a band, group, or a solo performer. They will then try to get a gig at a local venue. Go over what a gig and venue are. 3. One ST will be a musician and the will be owners of venues looking for live performers in SL. They will talk venues what type of business they have (restaurant, bar, club, coffee shop, etc.). 4.Guess who I am: a. Identify the pictures of those famous celebrities in the display board and discuss with the class how much you know about them. b. Ask your partner who his/her favorite musician is (spin the bottle). 5.a.Sts will work in pairs to write down as many music genres as possible. b. Try as many music instruments as you like. Choose 1 instrument to play and ask your partner to take a snap shot of you playing the music instrument. You'll also do the same for him/her. c. Interview your partner. Ask him/her why he'd like to play this music instrument. 6. Sts will role play the famous TV program "The Voice"

7. Vincent: a. Listen to the song and try to fill in the blanks on a notecard. b. Compare your answers with your partners.
8. Teleport to a Karaoke Club and sing along!
Attend a music event in SL

Post-task

Opinion-gap activities:
-Comparing and discussing with interlocutors the differences of places visited in SL.

Reviewing the task procedure.



Task 9: Health

	SL Group	Classroom Group
Title	Health	Health
Time	90 minutes	90 minutes
Aim	Functions:	Functions:
Forms and Functions of the Language	-Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information	-Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information
Sub-tasks		
Places	Hospitals in SL Rose General Hospital	Classroom
Pre-Task	Sts will talk about widespread illnesses in the 21st century.	Sts will talk about widespread illnesses in the 21st century.
Procedure (Actual Task)	1.A patient –doctor role play will be conducted at a hospital in SL. 3. Secretary and patient Role play Pharmacist and patient role play 3.A first-aid role play will be conducted at an ambulance in SL. 4.An interview format will be employed. 5. A virtual certificate that acknowledges each student's performance and completion of the course will be granted. 6. A donor and a patient role-play	1.A patient –doctor role play will be conducted in the classroom. 3.A first-aid role play will be conducted at an ambulance in SL. 5.A donor and a patient role-play
Post-task	Opinion-gap activities: -Comparing and discussing with interlocutors the differences of places visited in SL. Reviewing the task procedure.	Reviewing the task procedure.

Task 10: Cinema & Theatre

	SL Group	Classroom Group
Title	Cinema & Theatre	Cinema & Theatre
Time	90 minutes	90 minutes
Aim	Functions:	Functions:
Forms and Functions of the Language	-Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information	-Asking Questions -Expressing preferences -Planning activities -Exchanging opinions -Making Decisions -Asking for & providing information
Sub-tasks	Role-playing	Role-playing
Places	Cinemas and Theatres in SL	Classroom
Pre-Task	Sts will choose 3 movies, books or series scenes to perform.	Sts will choose 3 movies or series scenes to perform.
Procedure (Actual Task)	Sts will teleport to the places where the scene can be role-played and record their movie. Sts will read a book part and role-play it. Role Play :A movie critic and an interviewer Sts will talk about their famous movies and plays. Sts will discuss the sentence good books that turned into bad movies.	Sts will role-play the scenes of movies they choose. Sts will read a book part and role-play it. Role Play :A movie critic and an interviewer Sts will talk about their famous movies and plays. Sts will discuss the sentence good books that turned into bad movies.
Post-task	Reviewing the task procedure	Reviewing the task procedure.

APPENDIX 10. WEEKLY PROCEDURES

Task 1: Orientation & Greetings

Before the first task, both groups were provided with the ten-week task syllabus. The first task was orientation. For the experimental group, the task aimed to familiarize participants with the SL and with the University life. The places were Orientation Island in SL, university campuses in SL, islands discovered by the students, places in which learners attended the activities to fulfill the task, and Virlantis. In the pre-task stage, participants were asked to choose the best avatar for the task. The participants were asked to practice voice chat with avatar movement and gestures. They talked about university life (looking for campuses in SL). As for the greetings, STs prepared questions for their conversation partners and answered these questions. The questions helped to know each other. Also, STS were asked to learn English phrases and idioms in greetings as well as comparing and contrasting cross-cultural differences/similarities in greetings. They were asked to teleport to the places mentioned in the syllabus and the places they want and meet other SL residents. In the main task part, as an individual practice, they visited at least five university campuses in SL, and five other islands they wanted to see. Then, they described the places they had seen and asked questions like: What was the best place you visited and how did you find it? Students talked in a role play as an exchange student and a student of their university and discussed the possible problems and solutions to these problems. For instance, they walked around a virtual campus and gave information about the student affairs, dean's and rector's offices, and so on. Also, student teachers took pictures of ten places they liked in SL.



Figure. The Welcome Island of SL

In the control group, one of the aims was orientation to the university life. They conducted city and university orientations. STs talked in a role play as an exchange student and a student of their university. They discussed the possible problems and solutions to these problems. For instance, they gave information about the student affairs, dean's and rector's offices, etc. They were asked to talk about touristic attractions in the city. As for the greetings, STs prepared questions for their conversation partners and answered these questions. The questions helped to know each other. Also, STs were asked to learn English phrases/idioms in greetings as well as comparing and contrasting cross-cultural differences/similarities in greetings. Last, they were asked to describe the places and events they come across while going to their homes or dorms.



Figure. Meeting at a virtual university campus for a part of orientation task

Task 2: Adventure & Travelling

The sub-tasks of the adventure & traveling task were: reserving a holiday, organizing a tour, checking in at an airport, and reception talk.

Experimental group students were asked to:

1. Talk about their last trip & holiday and express feelings about their last holiday or trip.
2. Discuss transportation choices and advantages and disadvantages of various forms of transportation. Work in pairs and talk about a holiday and possible destinations on the way.
3. Talk about what they need to know before they decide on a place for their holiday.
4. Think about the hotel type, how to reach the destination, the duration, activities, the budget, and shopping.
5. Write their ideas on the board in SL and teleport to the places they want.
6. Take turns to play the role as a professional tour guide, owner of an agency, and take the class to the places in SL. Students who were the tourists had the chance to ask their questions to their “tour guide” questions and take pictures of those tourist sites along the way.

7. Prepare a holiday plan and went to a holiday in SL.
8. Teleport to their hotel, and talk in a role play about problems that is likely to happen in a hotel and find ways to solve it.
9. Prepare a tour poster in SL.



Figure. A screenshot from the adventure and traveling task.

The control group students did the same tasks in the classroom. They;

1. Talked about their last trip & holiday and expressed feelings about their last holiday or trip.
2. Discussed transportation choices and advantages and disadvantages of various forms of transportation.
3. Talked about what they need to know before they decide on a place for their holiday.
4. Talked about the hotel type, transportation options, the duration, activities, the budget, and shopping.
5. Wrote their ideas on the board.

6. Took turns to play the role as a professional tour guide, owner of an agency,
7. Asked questions to their “tour guide” questions and took pictures of those tourist sites along the way.
8. Prepared a holiday plan.
9. Teleport to their hotel, and in a role play they picked up a problem that is likely to happen in a hotel and find ways to solve it.
10. Prepared a tour poster and showed it in the classroom.



Figure. A role-play screen shot from check-in at a hotel

Task 3: Foods

In the foods task, some functions of the language were addressed such as asking questions, expressing preferences, ordering foods and drinks, exchanging opinions, making decisions, and asking for and providing information. The experimental group participants were asked to:

1. Find SL restaurants and offer teleport to each other.
2. Order a meal at a restaurant in SL.
3. Overcoming a problem that might occur at a virtual restaurant.
4. Talk about eating habits of countries (popular cuisines all around the world (i.e., Italian, French, Middle Eastern, Turkish)).

5. Talk about the dishes and meals served in a restaurant (e.g. appetizers, main dish, and desserts).
6. Discuss what combinations can be served at a restaurant and role-play as customers, waiters & waitresses, and restaurant owners.
7. Play a food game, role-play. They worked in a team to describe the food items on a board in SL without naming the foods. The other team had to guess the food item base on the other group's description.

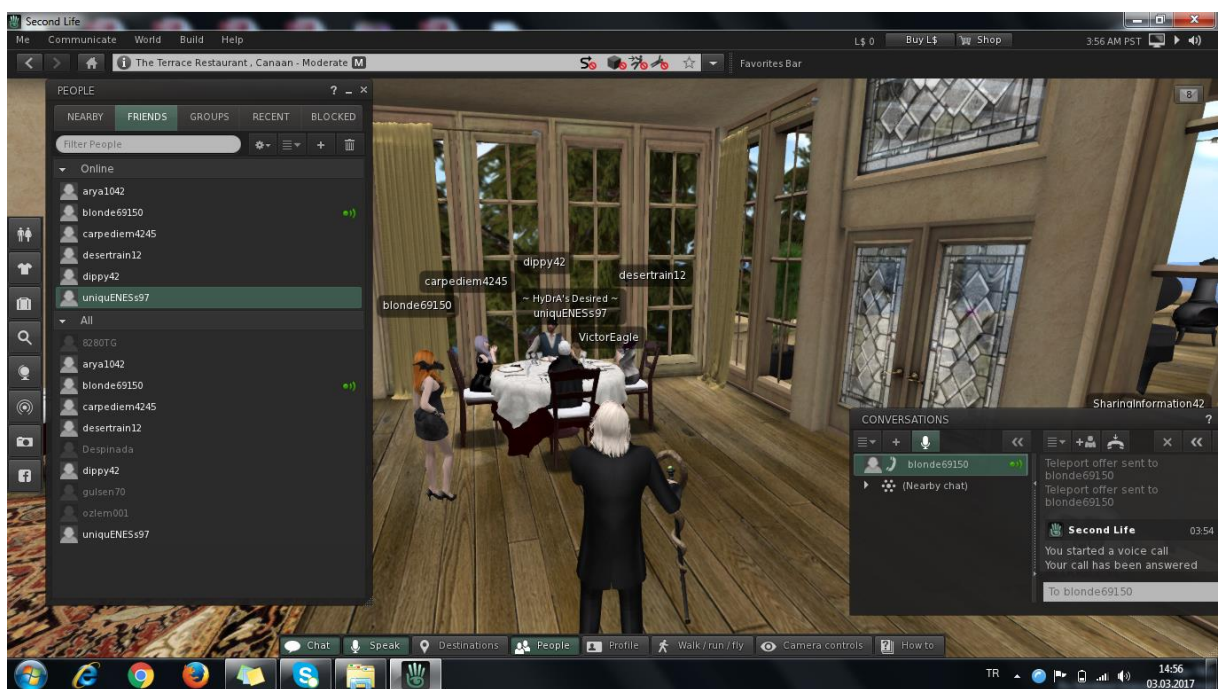


Figure. A group is dining at a restaurant, and the researcher is watching them with his avatar

The control group participants were asked to:

1. Learn the names of the meals and drinks.
2. Overcome a problem that may occur at a restaurant (role-play).
3. Talk about eating habits of countries (popular cuisines all around the world (Italian, French, Middle Eastern, Turkish).
4. Talk about the dishes and meals served in a restaurant (e.g., appetizers, main dish, and desserts).

5. Discuss what combinations can be served at a restaurant and roleplay as customers, waiters & waitresses, and restaurant owners.
6. Play a food game, role-play. They worked in a team to describe the food items on the TV screen without naming the foods. The other team has to guess the food item base on the other group's description. The other students in the classroom were also involved in the game.

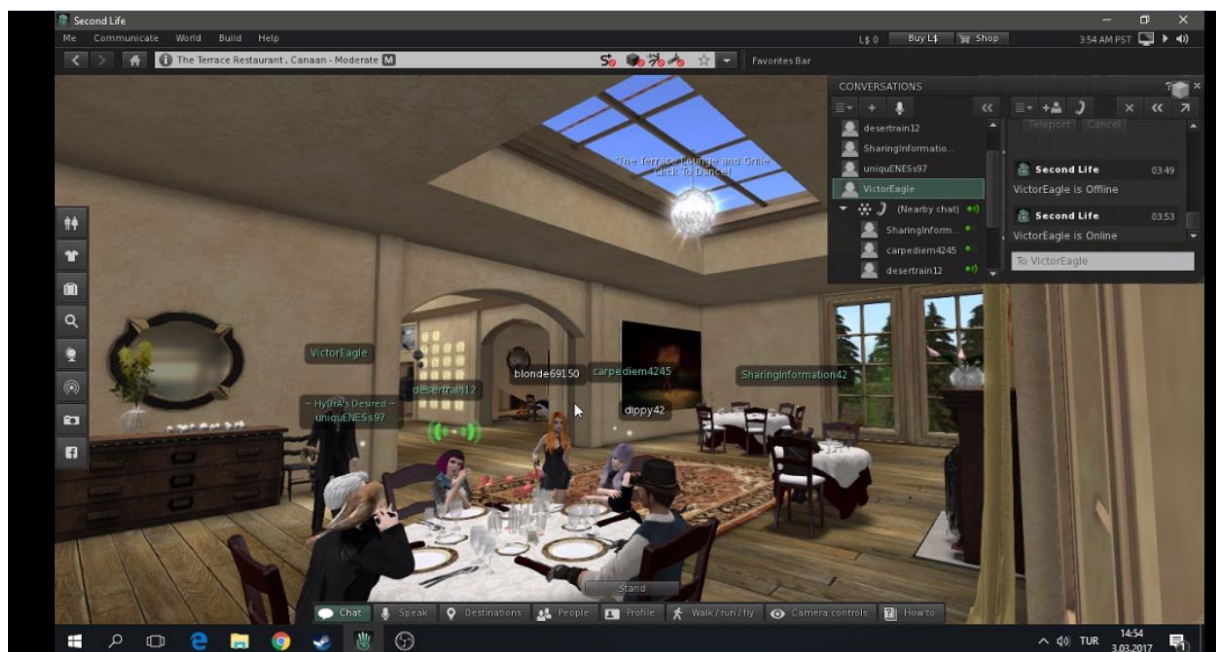


Figure. Another screen shot from the food task.

Task 4: Jobs

Jobs task required experimental group participants to:

1. Talk about their parents' jobs.
2. Talk about jobs that can be done at home and future jobs.
3. Play a job game in which each team takes turns to describe the job without naming it.
4. Take turns to play the role as an employer and an employee (job seeker). Job seekers went from one company to another and asked about the jobs in SL. They were only interested in the compensation package that the job offers and the

employers were interested in finding employees who meet the requirements of the job. Employers told why they would like to hire someone.

5. Attend a business meeting in SL which they talk about the details of a job they determine.
6. Create a job advertisement in SL, including job title, job description, salary benefits, and promotions.



Figure. Student teachers are role-playing a business meeting

In this task, control group participants;

1. Talked about their parents' jobs.
2. Talked about jobs that can be done at home and future jobs.
3. Played a job game in which each team takes turns to describe the job without naming it.
4. Took turns to play the role as the employer and employee (job seeker). Job seekers went from one company to another. They were only interested in the compensation package that the job offers and the employers are interested in finding employees

who meet the requirements of the job. Employers told why they would like to hire someone.

5. Attended a business meeting in SL where they talk about the details of a job they determine.
6. Created a job advertisement in the classroom, including job title, job description, salary benefits, and promotions.

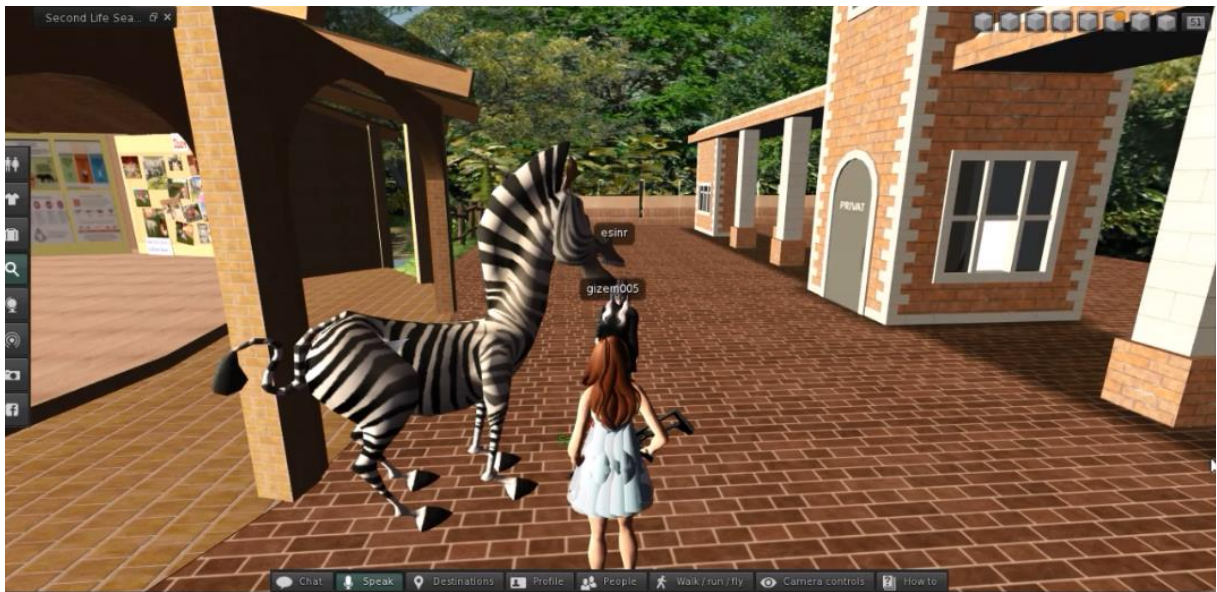


Figure. Student teachers are speaking at a job employment role-play at a zoo in SL.

Task 5: Shopping & Clothing

In this task, experimental group students:

1. Went to as many SL shops as they can in SL.
2. Talked about clothes, gift customs, and dressing in different cultures.
3. Made a TV program about shopping.
4. Conducted a shopping role-play (shoppers-shopkeepers). For instance, computer shop owner, newsagent, bookshop.
5. Created a garage including staff to sell. They described and sold them.
6. Decided with their partners what to buy with a gift card to a book store, computer store, or clothing store in SL.

7. Role-played a bargaining in a SL store.
8. Created their own clothes shop conversation between a shop assistant and a customer and present it in SL store. They also created their label and tried to convince the classroom for the fact that why his/her label(brand) is appropriate in terms of the price, quality, et.
9. Created their label and try to convince the SL community for the fact that why his/her label(brand) is appropriate in terms of the price, quality, and so on.
10. Compared and contrasted e-shopping and standard shopping.

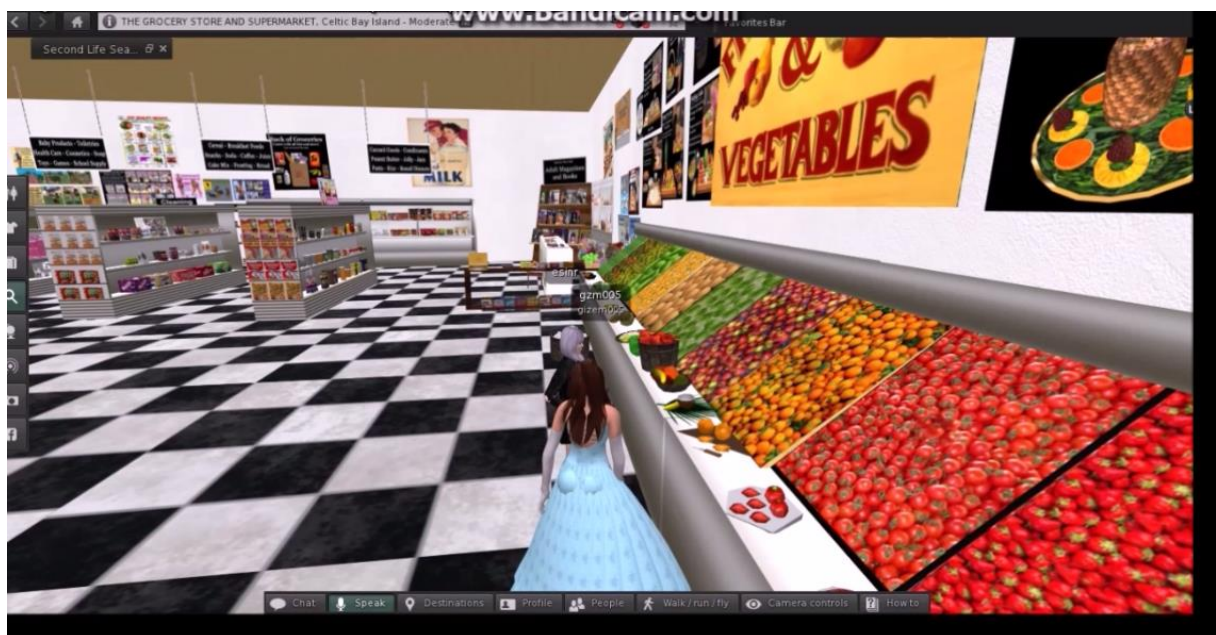


Figure. A shopping mall in SL

In this task, the control group was asked to:

1. Talk about clothes and dressing in different cultures, gift customs of the countries.
2. Make a TV program about shopping.
3. Conduct a shopping role-play (shoppers-shopkeepers). A computer shop owner, newsagent or bookshop owner and customers.
4. Create a garage including staff to sell. They described and sold them. They showed the pictures of the staff to the class.

5. Decide with their partners what to buy with a gift card to a book store, computer store, or clothing store.
6. Role-play a bargaining in the classroom.
7. Create their own clothes shop conversation between a shop assistant and a customer and present it in the classroom. They also created their label and tried to convince the classroom for the fact that why his/her label(brand) is appropriate in terms of the price, quality, et.
8. Compare and contrast the e-shopping and standard shopping.



Figure. A group is shopping in SL

Task 6: Art & Culture

In this task, experimental group students went to many places such as museums and galleries in SL (e.g., The Clock Museum, SL Historical Museum, Spaceflight Museum, International space-flight museum, Paris Underground Museum) and different cities and countries. They;

1. Prepared a question card about a museum and asked their partners to speak for at least one minute and described the museum they visited in SL.

2. Worked with a partner to research what they notice in one of the exhibits in the museum and took some snapshots of what strikes them the most.
3. Chose a character from a painting or sculpture and talked about it.
4. Discussed on how culture shapes the art.
5. Conducted a role-play as a museum director and a visitor in a SL museum.
6. Conducted a role-play as a gallery owner and a gallery visitor in a SL gallery.



Figure. A group visiting a museum (Louvre Museum)

The control group students;

1. Prepared a question card about a museum and asked their partners to speak for at least one minute and described the museum they saw.
2. Worked with a partner to research what they notice in one of the exhibits in the museum.
3. Picked a character from a painting or sculpture and talked about it.
4. Discussed on how culture shapes the art.
5. Conducted a role-play as a museum director and a visitor.
6. Conducted a role-play as a gallery owner and a gallery visitor.



Figure. Participants are talking at the International Spaceflight Museum in SL

Task 7: Sports & Games

In the sports and games task, the experimental group participants were asked to:

1. Teleport to gyms, stadiums, and sports places in SL and offer teleport to each other.
2. Report a sports competition.
3. Visit gyms, stadiums, and sports places in SL.
4. Learn the names of sports equipment and talk about them.
5. Describe a sport, how it is played, the equipment used.
6. Conduct a role-play between a music instrument shop owner and a customer.
7. Work in pairs to discuss their favorite sports based on the questions on the notecard they prepare.
8. Play sports in Virtlantis Island (e.g., soccer, basketball, water jet-skiing, etc.).
9. Do a role play: A press conference of a coach.
10. Play a wheel of fortune game in SL.
11. Conduct a puppet show in SL.



Figure. One group is doing sports and talking about the sport they are doing.

The control group participants were asked to:

1. Take pictures of gyms, stadiums, and sports places and talk about them.
2. Report a sports competition.
3. Learn the names of sports equipment and talk about them.
4. Describe a sport, how it is played, the equipment used.
5. Work in pairs to discuss their favorite sports based on the questions on the notecard they prepare.
6. Conduct a role-play between a music instrument shop owner and a customer.
7. Do a role play: A press conference of a coach and journalists.
8. Play a wheel of fortune game.
9. Conduct a puppet show.

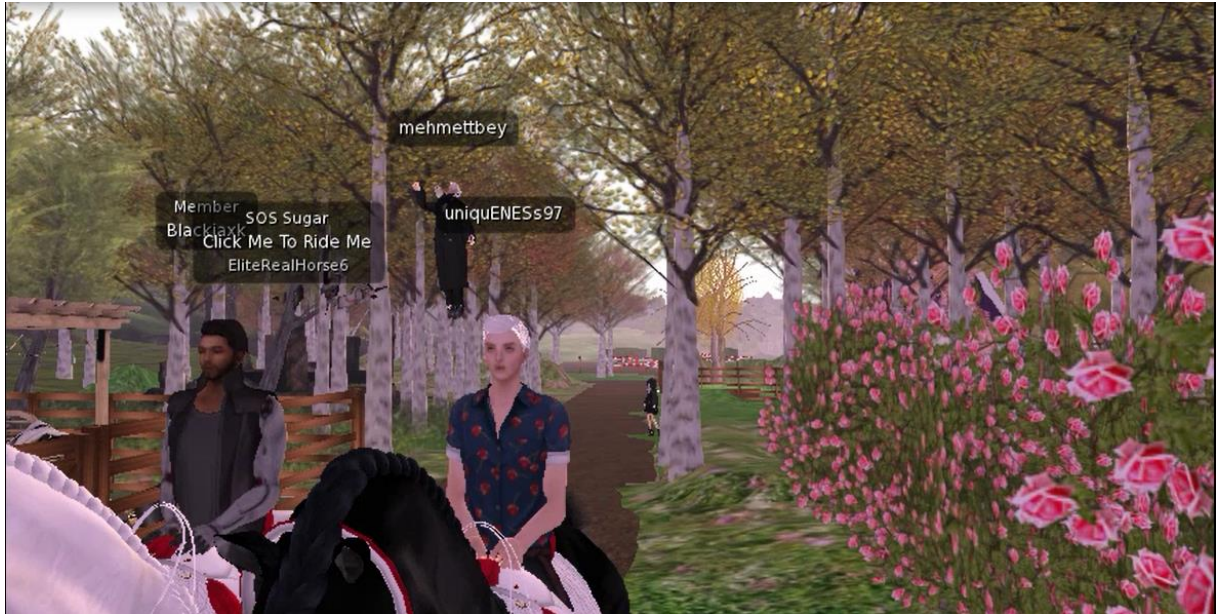


Figure. Student teachers are riding horses with their avatars

Task 8: Music

In this task the experimental group participants:

1. Brainstormed the music genres.
2. Picked one or two of their favorite songs and singers and discussed why they liked them.
3. Discussed traditional and modern music.
4. Identified the pictures of celebrities in the display board and discussed with the class how much they know about them.
5. Tried as many music instruments as they like.
6. Picked one instrument to play and ask their partners to take a snap shot of thme playing the music instrument.
6. Role-played the famous TV program “The Voice.”
7. Teleported to a Karaoke Club and sang along!
8. Attended a music event in SL.



Figure. Participants are conducting a role-play in a music instrument shop



Figure. Two group members are role-playing (shop owner and customer) at a music instrument shop

In this task the control group participants:

1. Brainstormed the music genres.
2. Picked one or two of their favorite songs and singers and discussed why they liked them.
3. Discussed traditional and modern music.

4. Identified the pictures of celebrities on the classroom board and discussed with the class how much they know about them.
5. Tried to learn the names of music instruments and described them.
6. Role-played the famous TV program “The Voice.”



Figure. Participants are dancing at a concert in SL

Task 9: Health

In the health task the experimental group participants:

1. Conducted a patient and a doctor role-play.
2. Talked about common diseases.
3. Conducted a secretary and a patient role-play.
4. Prepared a TV program on health.
5. Conducted a donor and a patient role-play.
6. Conducted a pharmacist and a patient role-play.
7. Conducted a first-aid role play in an ambulance in SL.



Figure. One group is talking at a hospital in SL

In the classroom group, the participants

In the health task the experimental group participants:

1. Conducted a patient and a doctor role-play.
2. Talked about common diseases.
3. Conducted a secretary and a patient role-play.
4. Prepared a TV program on health.
5. Conducted a donor and a patient role-play.
6. Conducted a pharmacist and a patient role-play.
7. Conducted a first-aid role play in the classroom.



Figure. Participants are talking at a hospital

Task 10: Cinema & Theatre

In this task, experimental group students were asked to

1. Choose three movies, books or series scenes to perform.
2. Teleport to the places where the scene can be role-played recorded their movie.
3. Teleport to SL cinemas and theatres and talk about their favorite movies, plays, actors, and actresses.
4. Conduct a role-play as movie critic and as an interviewer.
5. Talk about the film adaptations of books.
6. Role-play an Oscar night.
7. Talk about famous plays in Turkish and other theatres.



Figure. STs are buying popcorn at a cinema

STs in the control group were asked to:

1. Choose three movies, books or series scenes to perform.
2. Talk about their favorite movies, plays, actors, and actresses.
3. Conduct a role-play as a movie critic and as an interviewer.
4. Talk about the film adaptations of books.
5. Role-play a Oscar night.
6. Talk about famous plays in Turkish and other theatres.

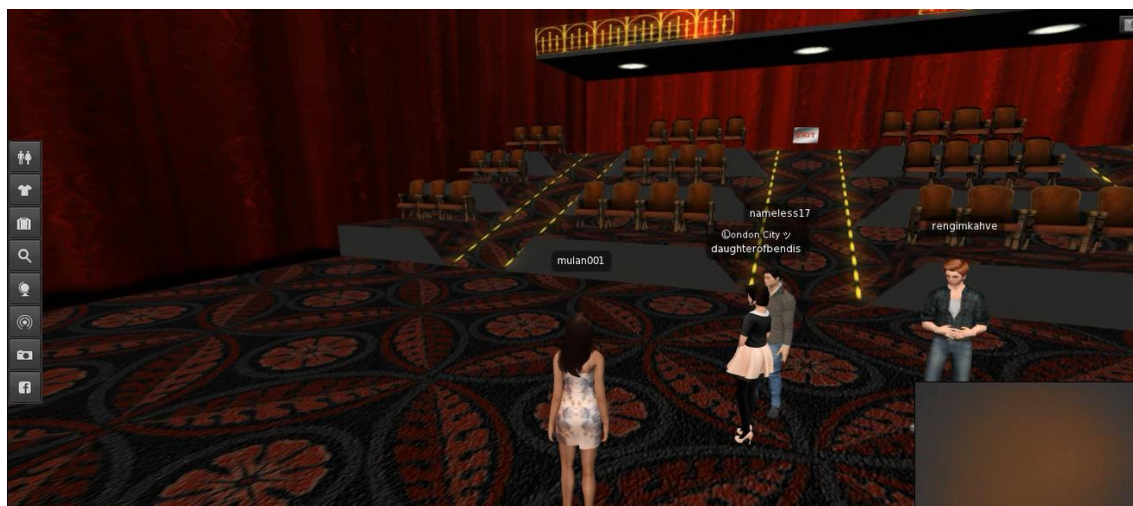


Figure. A role play is being conducted at a theatre.

APPENDIX 11. PARTICIPANT CONSENT FORM

I hereby confirm that I take part in this research study voluntarily. I was assured that only the researcher will have access to the information I will provide without revealing my name and personal information.

Title of the Study: THE EFFECTS OF A VIRTUAL WORLD ON THE WILLINGNESS TO COMMUNICATE, MOTIVATION, AND ANXIETY OF THE STUDENT TEACHERS OF ENGLISH

The purpose of this research study: This study aims to investigate the effects of using the virtual world Second Life on the WTC, motivation, and communication anxiety of first-year student teachers of English.

Ethical considerations and confidentiality: There is no risk involved in this study. Once accepting to participate in the study, you certainly have the chance to give it up at any point. I assure you that the results of the study may only be published for scientific reasons. But no information about your identity will be disclosed unless you give permission. Nobody except the researcher will have access to any of the data.

Available Sources of Information

If you have any questions, you may contact me through my e-mail address: kartalgalip@gmail.com

Authorization

I have read and understood this consent form, and I volunteer to participate in this research study. I am ensured that in case of my request to be excluded from the study during the course of research, I have chance to give it up at any point..

Participant's Name:

Date:

Signature:



GAZİLİ OLMAK AYRICALIKTIR...