The Effects of Virtual Worlds on Improving Students' Communication and Collaboration Skills

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Abstract

Knowing how to communicate in the target language is the main goal of most language learners. Also, it is very challenging for teachers to bring real world communication experience in classroom settings where English is not the native language. Hence, in this paper I explored the role of virtual worlds in promoting communicational and collaboration opportunities to non-native speakers of English. In my research, I have described how virtual worlds improve communicative and collaborative skills of non-native speakers of English. Moreover, I have investigated how virtual worlds can create a learner centered environment where students take control of their own language production. And third, I have explored how the affordances of virtual worlds can enhance non-native English students' communication and collaboration by engaging them in contextual and authentic environment. I have analyzed the data collected at South East European University where I examined the interactions of two groups of undergraduate non-native English students, one in normal classroom setting (where students performed a tour guide role play) and the other one using a virtual world called Second Life (SL) (where students communicated with English native speakers). For this research, I used exploratory research methodology. Through classroom and computer lab observations, audio and video recordings and pre and post study surveys I gathered data that clearly indicate the ways that SL can be used to create opportunities for communication and collaboration

Keywords: Computer Assisted Language Learning; Virtual worlds; Communication; Collaboration.

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1. Introduction

As English is becoming a dominant world language, the need for good communication skills has increased too. Thus, the educational system is imposing a demand for more teaching strategies that improve the quality of teaching communicative and collaborative language skills. Also, the advent of technology has led to major changes in the world. This rapid acceleration of technology has shown a great impact in the field of education. Moreover, as a significant educational component, computers and the internet are shown quite successful at creating environments that offer students opportunities to practice communication. Hence, this paper is focused on how technology, in particular virtual worlds (VWs), can provide communication and collaboration in the target language.

1.1. Going beyond traditional language teaching

Placing language within context and promoting an authentic environment plays a significant role in language acquisition, particularly when it comes to teaching the social aspects of a language. Consequently, as natural language cannot exist in a vacuum [1], teachers find it very challenging to integrate and promote this kind of realistic situation that will develop students' communicative competence and collaboration skills. In addition, students themselves want to go beyond the traditional conceptual and abstract teacher-centered learning and apply the target language in "real life" situations. These new learners, "the digital natives" [2], do not fit the traditional teaching/learning model since most of them are surrounded with different means, particularly technological advancements that help them face the obstacles of language learning. There are several features that these learners expect from today's language learning instructions. Above all, they expect to multitask and to be networked, to receive information fast and to be exposed to more graphics and games rather than "serious" work [2]. Therefore, one of the biggest challenges for today's teachers is to find methods and strategies that will help them incorporate these new technological requirements in their teaching.

1.2. Virtual Worlds

VWs have a great impact on overcoming the lack of opportunities to communicate and collaborate in authentic situations. They distinguish from games, since the aim of VWs is not to win or lose but rather to perform real life functions like shopping, working, traveling, meeting friends etc. According to [3] VWs are three dimensional (3D) computer generated representations where people can enter a virtual setting and experience it from different angles. Furthermore, Reference [4] defines VWs as "highly interactive computer-based, multimedia environment in which the user becomes a participant with the computer in a 'virtually real world'". Moreover, Reference [5] defines VWs as "3D simulations running on an internet-accessed computer virtual reality in which "avatars" can move and interact with each other as well as their environment". And last but not least, Reference [6] argues that "a VW is a spatially based depiction of a persistent virtual environment, which can be experienced by numerous participants at once, who are represented within the space by" avatars". For my research, VWs represent places where students can be immeresed in interactions that they do not always have the chance to experience in real life. Moreover, they are fun environments where the students are welcomed to try to communicate with whatever language forms they have at hand, with a purpose to exchange ideas, thoughts

and feelings.

2. Theoretical Framework

The first one to coin the term communicative competence was Dell Hymes in 1972 who suggested that communicative competence has to do with "a person's ability to communicate in an appropriate way" [7]. To achieve communicative competence, communicative language teaching (CLT) was also introduced. This approach focuses on utilizing communicative competence by teaching and providing learners with a framework of how to communicate effectively [8]. Its focus is to set the learners in the center of real life communicative situations, since the approach itself holds the belief that language is developed through natural communication. In addition to this, Reference [9] add that the basic features of CLT are: meaningful real life communications, drilling peripherally, translating only when students need or benefit from it, using the language fluently, and the intrinsic motivation which comes as a result of the interest in what is being communicated by the language.

In my research, I used this theory to analyze how VWs are able to integrate all these elements and how students can be exposed to CLT by being a part of the community of English Native Speakers (NS). As such, VWs offer the opportunity for students to practice natural language without being strictly focused on applying grammar forms since the purpose of VWs is to bring communication among its users so they can get to know each other better and share experiences. In other words, I explored how VWs are able to develop student's natural communication by distracting and lowering their hesitation to take part in spontaneous conversations. Thus, increasing students' communicative competence and collaboration is more likely to be achieved if the learners interact within the target language social environment [10]. This places interaction as one of the most significant factors that help advancing communicative competence and collaboration in English Language Teaching. Luckily, VWs as replicas of realistic environments offer learners a vast number of opportunities to interact with one another in real settings, as a result of which they get the "sense of being a part of a group and of participating in realistic face-to-face interactions" [10].

While learners are interacting, they are also collaborating with each other, which is another vital element in improving one's communicative competence. In this regard, "VWs offer support for multiple users, thus students can learn together and from each other" [11]. In addition to this, Reference [12] claim that collaboration is a "mutual engagement of participants in a coordinated effort to solve the problem, with some division of labor on aspects of the problem". In other words, "collaborative learning is a group learning activity in which learning depends on social information exchange among learners who are responsible for their own learning as well as the learning of others within the group" [5]. In connection to the VWs, the collaborative learning is reflected in every aspect. While learners are being engaged in a certain task, they are expected to collaborate with one another. As a result of this, they communicate in order to accomplish a mutual goal, thus they spontaneously develop their communicative competence and collaboration. In other words, when learners are given a task in VWs, they strive to get their message across so they can work together and get the expected results. Besides this, VWs offer different types of interaction tools like avatar movements, audio and text based chat, which clearly shows that they represent environments with big emphasis on interaction and positive interdependence.

For students to get the sense of positive interdependence they should first be aware that in order the task to be successfully accomplished all the individuals of the group need to contribute and to bring their share so they can make a united effort. That is, "group members have to know that they sink or swim together" [13]. So, by being committed to their specific task and role in the group, learners are more likely to collaborate with each other, which in turn leads to a more natural and spontaneous communication in the group. Another important aspect in facilitating a successful communication and collaboration between the learners is immersing them in authentic and contextual settings. According to [14] this refers to the way learners interact with the environment where the target language is spoken exclusively. By placing learners in such environments, they go beyond translation and memorization of language, and use language in real life experiences. "So, if we want the learning to be effective, we need to make it contextually relevant and applicable to students' needs and situation" [15]. This will also help them "construct their own knowledge out of that context and improve their motivation, interest, and achievement" [15]. Luckily, VWs give learners the chance to encounter language in real and authentic context, as the VW environment itself represents a replica of the real world places, people and events. According to [16] contextual learning in VWs also enables learners to "discover and discuss ideas in order to come up with meaningful information". In this way not only they learn language naturally but they also create experiences that will later improve their communicative and collaboration skills. Unfortunately, until recently education has been focused on abstract facts memorization and it has not paid much attention on giving students the opportunity to directly "experience for themselves the thing they seek to learn" [17].

Nevertheless, in 3D environments, learners get experiences of different kind, like exploring hundreds of places like parks, shops, museums, schools, social and recreational locations. Moreover, "experiential learning in VWs gives learners the advantage to autonomously control their learning experience and ownership of knowledge" [14]. In this way, while experiencing the environment that surrounds them, the learners receive, "plenty of communicative opportunities in the target language" [18] which clearly shows how these two are intertwined. Besides these, a great deal of other second language acquisition theories and approaches are also being supported by virtual realities, one of which is *the student-centered learning approach*, where students are given the opportunity to participate in their own language knowledge construction instead of applying rote repetition and memorization only [3]. Another benefit is that the anonymity behind the avatars ensures a stress diminished, non-threatening environment where students experience less apprehension and are eager to take more risks than in face-to-face interactions. This supports what [19] refers to as *the affective filter hypothesis* which suggests that affective factors like anxiety may cause "a mental block that prevents input from reaching the language acquisition device". Furthermore, virtual realities endeavor to make students participate actively without having concerns about their mistakes, but instead prioritize communication over accuracy, a concept that [19] calls *natural communicative input.* According to this "acquisition requires meaningful interaction in the target language, when speakers are concerned not with the form of their utterances but with the messages they are conveying and understanding".

Another crucial benefit of virtual simulations is promoting the model, called *negotiation of meaning*, according to which, when communication problems occur between the students, they can still speak/write more slowly, simplify what has been said, change the vocabulary, choose more understandable topics, use simpler structures, paraphrase or even ask for more information and clarification from their peers. Considering their huge

importance in ELT, these and other significant pedagogical rationales regarding the effectiveness of virtual realities in fostering genuine communication and collaboration among the students are the features that I have examined in more details in my research.

3. Methods

The main aim of this research was to gather data for the following research questions:

1. Can VWs influence students' communicative competence and do they foster their collaboration?
2. Can VWs encourage student autonomy through creating a student-centered environment?
3. Can VWs promote authentic environments for using language in a real context?

In order to answer these questions, I examined the usefulness of VWs in real classroom settings. The experiment was conducted at SEE University (Tetovo, Macedonia) with undergraduate students of age 19-20, with intermediate level of English proficiency. The data for this research was collected in two sessions, one in a traditional classroom setting and the other one in the computer lab using SL. Both sessions lasted about 60 minutes. As a SL setting, I used Virtlantis (http://virtlantis.com), a free language learning resource and community of practice in SL.I collected reflections and samples of participants' oral production in English that could be considered as representative as possible of natural oral communication. I conducted, direct observations, computer screen recordings, post study survey and post-study feedback from the NS participants. For the students in the traditional classroom setting, I used a worksheet for tour guides with the aim to use communicational context related to traveling. My goal was for both settings to deal with the same topic and follow somewhat similar steps and rules. After that, they did the communication task which consisted of a role play and enacting a travel agent. This was the main task since it helped me compare students' communicative and collaborative skills with those of the virtual group. In the Second Life Settings, what students had to do was meet with English native speakers and go on a virtual fieldtrip quest, searching for information about particular location while being engaged in social, immersive activities as a part of the quest's research. The objective behind the quest was to get students engaged in a task based activity so they can collaborate with their partners in order to accomplish their mission and thus acquire the target language spontaneously On the other hand, the qualitative data was gathered through questionnaires and surveys administered to the students, the ongoing observation, and comparison of the chat logs in order to see what communication conventions and strategies have been used while students accomplished their quest. The post task survey consisted of a series of questions, giving the students a chance to express their feelings and thoughts about the learning experience in SL, its advantages and disadvantages, and its impact on students' learning.

4. Results and discussions

In this chapter I discussed my findings and the application of my theoretical framework as it meets the practical implementation of the findings in SL. In terms of negotiation of meaning, students need to be exposed to i+1 level, that is to say, language that is beyond their present level of proficiency which is more likely to trigger negotiation of meaning. However, in both of the settings, the students and the NSs used language that was

almost at the same level, as a result of which negotiation of meaning did not occur as often as I expected. The students of the in-class group were more or less of the same English language proficiency; they did not have many chances to negotiate meaning. Even though the NSs could have used expressions and word structures that could be slightly beyond the students' level of proficiency and thus trigger them to negotiate meaning, they still chose to use simple language forms and talked slowly enough to be understood. That is why students rarely asked their partners to modify their sentences or were challenged to use language beyond their level.

SL, as an interactive VW including the various visual, audile and avatar based interactions, enhanced the social constructivism among the students of the virtual group. These students were involved in dynamic interactions where by moving around the SL environment explored new knowledge and thus new language. As a result of the engaging learning environment of SL, students collaborated with their partners and had the chance to visualize and explore different locations. By trying to understand the new language and the new information that they received, the virtual group constructed their own meaning for the new language. For example, they had the chance to see and talk about models of real world places and things that they had not seen before. Reference [17] suggested that for the new knowledge to be acquired with understanding, the content needs to be meaningful to the learner so they can personally construct knowledge while being engaged in active exploration. Regarding this, the virtual group had the chance to use language in a meanigful way, for real communicational purposes, which furthermore helped them apply new language concepts naturally and in different social contexts. As a result of having a task that was "contextualized, authentic, and meaningful to the students" [5], the virtual group used purposeful and natural communication. They discussed topics and used language with real function, either for solving technical problems or to get to know their partners and SL environment better.

Other factors that had a great impact on students' communication are anxiety and motivation. The students who were engaged in SL spoke without any hesitation and were interested in learning how to use this medium. There was no noise while they were talking, except the smooth background music including ocean waves and birds singing which made the ambiance even more relaxing. There was no disturbance and no pressure from their partners so they talked in their own time and pace. This and the visual effects made the students feel stress-free and eager to express themselves. These results agree with what [19] referred to as affective filter hypothesis, according to which, in a relaxed and unthreatened environment, the affective barrier is lowered, so there is no anxiety among the students. In addition, the NSs gave the students time to express themselves without interrupting them or correcting their mistakes. This is why, even when the students would make grammar mistakes they carried on the conversation without hesitation. This made them feel less shy of making mistakes and more comfortable with their partners hearing the mistakes they made. On the other hand, the students in the classroom proved that under pressure their affective filter can increase and thus silence them. One of the reasons for this was the overloading questions addressed to the tour guides. The students, in this case the tourists, did not give their friends time and space to think about answering these questions, but rather addressed questions one after another, not waiting for the answers. Another factor that discouraged students was that they were very often interrupted or ignored and they did not respect the turn taking when speaking. It also happened that other students would give answers instead of them. Another sign of silencing students was that they did not work in pairs like the teacher suggested them to do, since the aim was to help each other during the presentations. Instead, some students dominated the conversation without giving their partners a chance to take part as well.

In terms of student autonomy, the findings of this study matched those of previous studies, which confirmed my assumptions that in SL students complete the tasks without the help from their teacher, whereas in the classroom setting the presence of the teacher is necessary. Students should be encouraged to explore the environment and construct their own language learning in order to improve their communicative and collaborative skills. Specifically, Reference [20] suggested, that when students are engaged in student centered learning, they are in charge of their language learning rather than being observers and receivers of information. Regarding this, the teacher intervention in the SL session was less frequent or almost not present at all in comparison with the teacher intervention in the classroom setting. In SL, the teacher's role was to first introduce students to SL and to instruct them how to use this medium. Moreover, the teacher was there to solve technical problems that occurred during the task, the majority of which were solved by the students themselves. The idea behind this was that while trying to solve the technical problems the students were autonomously and spontaneously engaged in contextual conversation. This way, the students in SL were in charge of their own language production without any grammatical or lexical help from the teacher. Whenever such problems occurred the teacher did not interrupt the students by correcting them, but they were rather left alone to improvise with whatever language they had in hand.

Moreover, the students were given the chance to talk about whatever they wanted, so they had the opportunity to choose whatever topic they were interested in. Besides this, they were not limited to using certain word structures but rather made independent decisions about the sentences they constructed. So, like [20] suggested, SL indeed fosters autonomous, self-directed and self-controlled learning. Having the freedom to communicate without being interrupted from the teacher, students were able to explore the environment and thus use language to get information about the different contextual situations which helped them socially construct this new knowledge. On the other hand, in the classroom setting, the teacher's function was necessary. Besides giving instructions to the students, she also took part in the activities. As a matter of a fact, she took the role of the tourist with the aim to make the students feel more comfortable and to trigger them to take part in the role play. She also encouraged them to elaborate their utterances, which they would not otherwise do without her intervention. In addition, whenever the students became silent, she gave them examples and shared her own experiences so they can feel more comfortable when sharing their opinions as well.

Very often the teacher gave these students lexical help or corrected their grammar which means that they were not left alone to make independent decision about the sentences they were conveying. Regarding this, Reference [21] indicated that students need to resolve problems without the authoritative persuasion of a teacher. So, it is sometimes better when students are not served with the correct answer, but rather left on their own to decide and negotiate meaning which is an important factor in developing students' communicative and collaborative competence. The students also agreed, that teacher's presence was necessary in the classroom which shows that in classroom settings most of the students are used to having the teacher as a leader.

The finding in this study indicated that the conversations in SL were more authentic and contextual than the ones in the classroom setting. In both sessions the students were engaged in task based learning. The task of the students in SL was to get to know their partners better and to go on a virtual fieldtrip whereas the students in the classroom settings had to successfully accomplish the tour guide role play. When students are assigned tasks to

accomplish, they are more likely to use language in real context. As a result of this, the students used communication and negotiation of meaning as a necessary tool to perform these tasks. So, both groups of students had the chance to use the language that they can apply outside the classroom. However, the students in SL had the opportunity to talk about various topics. Their goal was to explore SL which in turn gave them an opportunity to talk about different things related to the real world. So, while being engaged in this goal, they were focused on meaning rather than form. This also aligns with the statements of [22] that SL creates an environment where students have desire to communicate something with purpose and focus on a rich content rather than on a particular language structure. On the other hand, the role play task was also contextual and authentic. However, it did not allow students much variance in communication and it looked artificial in comparison with the SL task where students talked to real NSs and discussed real life topics. Even though the task of the tourists was to make as many questions as possible, they were not quite interested in making questions with real content but rather asked these questions just for the sake of completing the task. They also used language that was related to traveling and asked questions about the particular landmark which did not offer them opportunities for using language in variety of contexts. Furthermore, these students did not ask follow up questions in order to find more details about the place or even start a new topic. In addition, these in-class students used the handout with the information about the sightseeing as the main resource for their presentations, even though it was only supposed to give them the basic information about the places. So, instead of using this information and the pictures on the wall to communicate with the tourists in contextual and spontaneous way, they rather read the sentences from the handout without making any changes. However, there were cases when students did improvise with the answers they gave even though they did not have them written in their handout.

To sum up, the students who used SL demonstrated high usage of interpersonal and social skills but did not use negotiation of meaning that often. SL enhanced social constructivism, social presence and social awareness of peers as factors of making successful communication between the students and the NSs. Moreover, the virtual group spoke without hesitation and completed the tasks in real contexts and without the help from the teacher.

5. Conclusions

In this study, SL indeed created a relaxing environment where students had free and casual conversation. Moreover, it promoted negotiation of meaning among the students and the NSs as students had the chance to improve the structure of their utterances when they were not understood by the interlocutors, using different communication strategies. Furthermore, this study showed that SL as an environment that triggered social negotiation among the users also helped them construct new knowledge by exploring the SL environment. The findings from this study also suggests that in SL students established a sense of being together in an actual place with their interlocutor. In addition the study showed that students in SL showed great interest and willingness to collaborate which also creates a non-threatening environment for shy students. In this study, SL increased students' participation in communication and they were in charge of their own language communication. I also concluded that there was a change in teachers' role as SL offered interactive, collaborative student centered language learning. Finally, a major finding was that SL gave students opportunity to be involved in authentic and contextual tasks where they used language as in real world situations and had ample opportunities to discuss

various topics. To sum up, as technology is developing and the students are becoming more and more technology literate, a medium that can help in creating communication and collaboration opportunities is more than welcomed. As such, VWs and particularly SL has shown great potential in enhancing these skills. Therefore, one of the biggest challenges for today's teachers is to find methods and strategies that will help them incorporate these new technological requirements in their teaching process.

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