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Exploring Interactions between Adult English Learners and Their TeachLivE Digital Character Peers

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EXPLORING INTERACTIONS BETWEEN ADULT ENGLISH LEARNERS AND THEIR
TEACHLIVE DIGITAL PEERS

by

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ABSTRACT

Peer interaction is an important part of language learning. The results of previous studies showed advantages and disadvantages of peer interaction between native speakers and English learners. Using the educational simulation platform TeachLivE as the interaction platform, this qualitative descriptive case study explored the possibilities of bridging the gap between classroom language practice and real-life second language communication. The study recruited eight participants for a task-based interaction project. Using conversation analysis, the study revealed details in communication between adult English learners and their digital character peers. During the interactions, the participants were actively involved and the most frequent communication patterns were collaborative and cooperative. The analysis of interviews of participants and the interactor explored the factors that influenced the communication patterns between the young adult English learners and their digital peers. The results showed that the communication experience with digital characters was authentic and the virtual platform was critical to build the confidence of English learners' language use. Moreover, the multiple digital characters manipulated by interaction protocols were also helpful to create a scaffolding effect for practicing oral communication for the English learners.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE INTRODUCTION

Rationale of the Study

Oral communication is always a challenging part for English learners, especially in EFL environment. Students may have limited opportunities to practice speaking skills. Conversation practice research demonstrates that using Internet technology can enhance the teaching and learning experience (Eaton, 2010; Levy, 2009; Peterson, 2009) and that "speaking skills and language development can be assisted by this highly interactive and conversational communication tool" (Muhamad, 2014, p. 113).

Many studies have been done on oral communications among peers, including native-nonnative communication and nonnative-nonnative communication (Zhu, 1995; Dabao, 2012). While exploring communication via CMC, most current studies about language learning and communication mainly focus on communication through text, which is communication through writing (Marmini and Zanardi, 2007). There are few studies concerning the oral communication in virtual contexts in the field of ESL instruction. The new mixed-reality classroom simulation—TeachLivE lab, makes instant oral communication between ELs and their virtual peers possible. The proposed study is aimed to explore the oral communication patterns between adult ELs and their digital native speaking classmates, which is one of the very first studies in this area. The study tries to determine which communication pattern emerges the most frequently during oral communication between adult ELs and the digital characters, and whether such oral communication appears more collaborative, like the results from the previous studies on language learning via text communication have indicated. By studying communication patterns between ELs and their digital character peers, scholars can know more about the potential and

the problems of applying the instant oral communication technology in virtual environments to learning English as a second language.

There are two reasons why understanding communication patterns in this new educational technology platforms and the related factors is important. First, TeachLivE simulation is designed to bridge the gap between classroom learning and real-life application. This study tries to find out whether such bridging function also works for ESL learning, so the ELs can practice their oral communication in a virtual but authentic environment to increase their experience and build up their confidence for future communication in the ESL situation. By analyzing and comparing the communication patterns between adult ELs and their digital peers with the results from previous studies on real-life peer interaction or peer interaction through other virtual platforms, we can identify whether effective communication happens with this new technology and whether the bridging function works in this situation. Second, the previous studies on peer interaction indicate the positive effects of collaborative dialogues and scaffolding in language learning. By cataloguing the communication patterns and factors that influence the patterns, the study paved the way for the future studies on using TeachLivE simulation or similar platforms to facilitate the efficiency of language learning.

Communicative Technology and Language Learning in 21st Century

Interaction and communication are basic functions of language and very important purposes for language learning. Research on interaction has explored much about the relationship between interaction and second language acquisition (SLA), providing insights of different aspects of the subject. Long (1996) and Gass (1997) have suggested that conversational interaction is at the very least, a "priming device" for learning (Gass, 2003, p.235). As computers and the Internet are widely used in language programs, studies on Computer Assisted Language

Learning (CALL) are booming in second language education (Garrett, 2009). The emergence of different network-based communication tools has impacted traditional second language teaching by providing a variety of dynamic and vivid interactive contexts.

Since the beginning of the 21st Century, exploring CALL and computer mediated communication (CMC) in second language (L2) learning has attracted much attention of interactionist research, for communication technology and social media are extensively applied in educational environments. Lin and Voong (2013) defined CMC as "communication across two or more networked computers" (p. 189). Communication via CMC is divided into asynchronous computer-mediated communication (ACMC) and synchronous computer-mediated communication (SCMC). ACMC research involves a time lag while SCMC is instant communication via different media. In most of the current research, SCMC involved more studies via text-based communication (Kim, 2014; Lin and Voong, 2013). However, as CMC technology develops, real-time communication is more affordable in the language classroom and for SLA researchers, such as video conferences, Skype or FaceTime.

CMC Technology, including social media and other different technology applications, offers many possibilities for second language learners to improve their learning experience and efficiency. Studies have suggested many benefits of using CMC in education. The advantages include increasing students' motivation (Warschauer, 1997), providing opportunities of authentic and meaningful interactions with people from different cultural backgrounds (Muhamad, 2014), or even enhancing collaboration in work and educational environments (McFadden and Price, 2007). Peterson (2009) argues that CMC "is particularly effective for improving the listening and speaking skills of the student" (p. 303). Wu et al. (2013) pointed out the importance of using technology to prepare students to function in international cultures. According to Ciekanski and

Chanier (2008), this trend from CALL, which has traditionally focused on computer-based instructional programs, to CMC and later computer-supported collaborative learning (CSCL) involves "every language skill and area" (p. 163), including speaking and listening skills.

The literature above supported the positive effect of face-to-face like communication in learning experience, and the potential advantages it has to increase the learners' confidence and prepare them for real life communication. Dale's (1969) cone of learning (figure 1) suggested that authentic, practical and hands-on experiences are higher levels of learning activities and would lead to more productive and efficient learning outcomes. Therefore, a virtual reality environment is developed as a new dimension of CMC, with the intention to enhance the advantages of current CMC platforms. Senovsky and Kodym (1999) stated several critical components of a virtual reality environment, including the environment in three-dimensional models, events happening in real time, the users' free movement, and users' manipulation of the environment, etc. These features, also known as the capability of immersive virtual reality, provide the learners with a full sensory simulation (Connolly, 2005). Loureiro and Bettencourt (2011) divided virtual reality environments into four different levels according to their complexity. The first level is "virtual reality desktop avatars" (p. 57) such as the Second Life, whose application in language learning and communication has been explored by several studies; the second level is "mixed-reality environments", which is an immersive virtual environment and represented by TLE TeachLivE (Teaching and Learning in Virtual Environment).
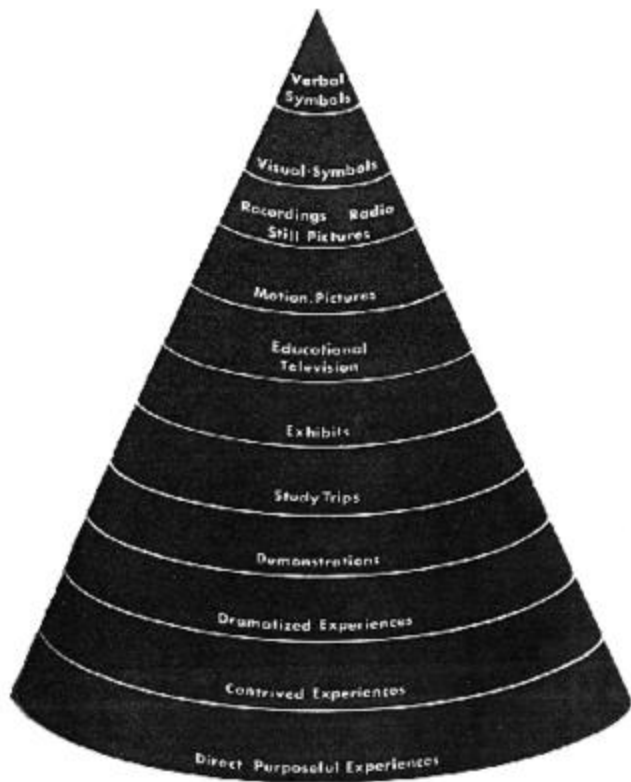
Figure 1 Dale's (1969) cone of learning

The TLE TeachLivE™ (TeachLivE) classroom simulator is an immersive, computer-based simulation with digital characters. It is designed to provide pre-service teachers the opportunity to practice their pedagogical skills learned in class in a safe environment with professional guidance and without real students at risk. This lab is currently the only one in the country using a mixed reality environment to prepare or retrain pre-service and in-service teachers. The use of TLE TeachLivE™ Lab has also extended to developing transition skills for students with significant disabilities, for example, students with Autism. The application of TeachLivE among students with special needs inspired this prospectus since it also provides a safe environment for English learners to practice their communication skills.

The TeachLivE learning laboratory is a sophisticated classroom simulation. It provides a full immersion experience of communication happening in a life-like classroom. The classroom includes digital characters that are shown on a computer screen in which they can make gestures and talk. The digital characters are controlled and animated by professional trained interactors. The interactors are able to interact with the TeachLivE users and also manipulate the body language of the digital characters. When TeachLivE is used for training pre-service teachers, the interactors usually create different scenarios to help the pre-service teachers to deal with different classroom management problems or academic content issues. While the pre-service teachers or the student participants walk around with a motion-sensing input device, the view of the classroom also shifts in correspondence to their movement. For pre-service teachers, it is a powerful learning environment. Instructors can control the complexity of the instructional setting, and it is a safe setting to practice foundationed teaching and management skills or more complex instructional routines (Dawson and Lignugaris/Kraf, 2016). The lab provides a similar safe and professionally controlled environment for interaction and communication.

The population of English learners at the research institute

The research is done in a public university with enrollment of more than 63,000 students, among which the international students occupy about 2.5% from over 150 countries.

In 2013, the university made a plan to increase its international student enrollment. The population of international students, typically those whose first language is not English, is expanding on the campus, and some of them need more help and support since their language proficiency may be a challenge for them to achieve academic success in this university.

The intensive English program (IEP) at the university is an institute that attracts English learners from around the world. IEP is a non-credit program at the university for students who

want intensive English instruction for academic, professional, and personal reasons. The major goal of the IEP is to prepare students to make systematic progress in order to attain competency in the English language necessary for performing at the university level. Students who come to the IEP are from diverse cultural backgrounds and different educational levels. While attending the IEP, students take a placement test to determine their level before starting class, and different levels of language classes and programs are designed for them by TESOL professionals and university faculty with abundant educational experiences. Students are enrolled full time and usually take 24-25 hours of face-to-face classes each week, Monday through Friday. The students are granted certificates after finishing certain language programs. The international students from the IEP will be the participants of this study.

Research questions

To explore the interactions between adult English learners and the novice TeachLivE class simulation, the proposal asks the following two primary research questions about oral interactions between adult ELs and their virtual peers:

1) What are the most common communication patterns in conversations between adult ELs and TeachLivE digital characters?

2) What factors influence communication patterns in the conversations between adult ELs and TeachLivE digital characters?

Brief review of conceptual framework and peer interaction

Communication technology is an important language tool that has great impact on our communicative context and language style. It also serves as an important tool to create new learning environment rooted in socio-cultural theory. According to Vygotsky (1978), a more capable peer could be very critical in the learning process, guiding the learner to solve problems

and achieve potential development in performance. Therefore, this study explores the possibility of using virtual peers as a scaffolding tool and its effect on language learning within the Sociocultural and related theories.

The conceptual framework of the study is built upon Sociocultural Theory and the idea of the Zone of Proximal Development. Sociocultural Theory is based on Vygotsky (1978)'s works about the function of social interaction and mediation during the learning process. The theory emphasizes the historical and cultural context in human development and sees human development as a social process rather than an individual one. Since language is a very important aspect of social interaction, the major principles and constructs of Sociocultural Theory are also well associated with language learning, specifically, second language acquisition (SLA).

The Zone of Proximal Development (ZPD) is a very important concept created by Vygotsky (1978) and it has great impact in developmental psychology, education, and applied linguistics. By studying a variety of Thorndike's researches, Vygotsky (1978) argued that "learning is more than the acquisition of the ability to think; it is the acquisition of many specialized abilities for thinking" (p. 83). Instead of lagging behind or coinciding with development, learning should be in advance of development. Vygotsky (1978) later used two developmental levels to explain this position. The first level is the "actual development level", which is the level of development of a child's established mental function; the second level is a "dependent level", which is the potential level of development that a child could achieve with the help of the others. Learning happens in the process between the two levels and provides an impetus for the development. The distance between the two developmental levels is called "zone of proximal development". Vygotsky (1978) offers a most quoted definition of ZPD as "the distance between the actual developmental level as determined by independent problem solving

and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86).

Scaffolding is a term referring to language learning based on the idea of the ZPD. The term comes from the scaffold used during the process of building construction. It indicates the temporary support offered to the language learners to help them achieve a more advanced level (Gibbons, 2002). Scaffolding theory is widely discussed in the pedagogical practice of SLA. The temporary support in the theory could refer to instructor's teaching strategy, peer collaborative work, or technological facilities in class activities according to the different contexts of social interaction and educational practice. The function of scaffolding is to "reduce the degrees of freedom in carrying out some tasks so that the child can concentrate on the difficult skill she is in the process of acquiring" (Brunter, 1978, p. 19). According to Wood (1988), scaffolding is interactive when two or more people are mutually engaged. Scaffolding is not simply another word for help. It refers to the assistance provided by certain interactive mode that will move the learners to a new and more advanced level of knowledge. Comparing to ZPD, scaffolding is a more rigid structure, rather than the fluid dynamics of collaborative work like the work in ZPD (Gibbons, 2003).

The notion of peer interaction, a commonly investigated topic in ESL studies, is related to a sociocultural perspective on learnings. The benefits of interaction as practice include providing abundant examples for the learners to eventually use creatively, contextualized practice of language forms and increasing social acceptance among the language learners (Tognini, Philip & Oliver, 2010). Interaction that concentrates on the exchange of information may force language learners to engage with both form and meaning under communication pressure. Interaction as collaborative learning is best recognized through a sociocultural framework and could be an

exploration of language use as learning. In a conversation, learners may scaffold one another to enable communication, and the discourse represents the learner's proximal development (Tognini, Philip & Oliver, 2010).

Overview of methodology

The study used descriptive methods for investigating the interaction of the language learners. Descriptive research focuses on "the form and functions of classroom interactions, how these interactions are shaped and become meaningful, and what the implications may be for students' learning" (Zuengler and Mori, 2002). Descriptive research encompasses interaction analysis, discourse analysis and conversational analysis. The study will mainly use conversational analysis (CA) to explore details of the communication between ELs and the digital characters of the virtual classroom.

According to Schegloff, Koshik, Jacoby, & Olsher (2002), CA offers the potential for useful contribution to intercultural communication studies. "CA studies of speaking practices across languages and cultures can provide a basis for comparison of L2, or language learner, speaking practices with L1 speaker norms in both L1 and L2" (p. 16). Although CA was developed as an approach to the analysis of social interaction for the study of ordinary conversation, not for the study of language acquisition, many researchers supported the possibility of using CA for the study of SLA by combining CA with theories of learning, especially sociocultural and activity theories (Ishida, 2006; Ohta, 2001; Thorne, 2000), as the theory regards learning as a form of internalization and social cognition.

CA differs from interaction analysis or discourse approaches, for there is no set of preconceived categories that are applied to the data. The sequence organization identified

by CA are only determined by the interaction of the participants and the data generated from the interaction, not by matching the data to preconceived instruments that can be set before the research (Seedhouse, 2004). While it is applied to classroom interaction, CA regards a classroom context as a dynamic entity being co-constructed by participants (Cancino, 2015). In this study, CA is an appropriate choice for data analysis because no previous or similar study using TeachLivE has been done, and a detailed analysis without preconceived instrument will be necessary for this exploratory study.

Limitation and Delimitation

As an explorative study, the design has its limits. First, there was a limited number of participants in the study. However, the main methodology of the study is CA. When CA is applied to the interaction data analysis, the samples are the language episodes and sequences produced in the research. In this study, eight participants generated about two hours of conversation, which contained hundreds of turns for the interaction to be examined. They could still be considered adequate for an explorative, qualitative study. Another limit was the short time that the participants are exposed to the target technology. TeachLivE is the latest mixed-reality simulation that has not been introduced to international students at UCF yet. This group of participants were the first to experience the innovative technology. Therefore, the participants might need time to get familiar with the simulation. Due to the limited time and budget of the study, the researcher was not able to allow the participants more time to practice with the simulation. To reduce the unfamiliarity of the participants to the technology, the researcher were given a general introduction to the technology and all participants attended a fifteen-minute orientation to talk to the digital characters before the actual task. This would help ease the tension and pressure of facing a strange and new experience.

Another major limitation on participants was its representation of the diversity of population. The sampling process was based on voluntary and convenient sample. The participants might not be accurately representative for the population. Therefore, in this study, the influence of first languages and cultural backgrounds were not considered as related factors to the performance of the participants. However, such issues could be possible addressed in the future studies.

Terminology definition

Virtual Classroom/Classroom simulation: The virtual classroom indicates the mixed-reality teaching environment developed by the TLE TeachLivE™. The classroom is shown on a HD TV screen. The virtual students in the classroom can hear and reply to the real-life people via skype. The view of the classroom will change with the movement of the speaker who interacts with the virtual classroom wearing a motion-sensing input device.

Digital character: The digital characters are the high school avatars in the TLE TeachLivE™ high school classroom simulation. There are five of them—Sean, Kevin, CJ, Ed and Mary. They can talk, answer questions, ask questions and make gestures. However, they may not be able to talk at the same time.

Interactor: An interactor is the professional actor/actress who controls the reactions and behaviors of the digital characters. The interactor has studied the behaviors of the digital characters they are embodying, and gives real-time reaction to the participant in a scenario, with a designed protocol for different situations that might happen during the interaction.

CALL: Computer-assisted language learning (CALL) is defined by Levy (1997 as "the search for and study of applications of the computer in language teaching and learning"(p. 1). CALL includes a range of information and communication technology that are applied in

language learning, such as digital practice programs, online distance learning and virtual learning environment.

SCT: Sociocultural Theory is based on Vygotsky's (1978) works about the function of social interaction and mediation during the learning process. The theory emphasizes the historical and cultural context in human development and sees the human development as a social process rather than an individual one. Since language is a very important aspect of social interaction, the major principles and constructs of SCT also affect both first and second language learning.

CMC: Computer mediated communication (CMC) can be simply defined as the interaction occurred with the involvement of electronic devices. Communication via CMC is divided into asynchronous computer-mediated communication (ACMC) and synchronous computer-mediated communication (SCMC). ACMC research involves a time lag while SCMC is instant communication via different media. In this study, the communication is SCMC and oral communication through concealed identity.

ZPD: According to Vygotsky (1978), there are two developmental levels in learning process. The first level is the "actual development level", which is the level of development of a child's established mental function; the second level is a "dependent level", which is the potential level of development that a child could achieve with the help of others. Learning happens in the process between the two levels and provides an impetus for development. The distance between the two developmental levels is called the "zone of proximal development" (ZPD). Vygotsky (1978) concludes the most quoted definition of ZPD as "the distance between the actual developmental level as determined by independent problem solving and the level of

potential development as determined through problem solving under adult guidance or in

collaboration with more capable peers" (p. 86).

CHAPTER TWO LITERATURE REVIEW

This part of the prospectus will examine the major theories and studies of instructed Second Language Acquisition (SLA) which are relevant to the research questions and study design, including Vygotsky's Sociocultural theories, the Zone of Proximal Development (ZPD), scaffolding strategies, and conversational analysis in classroom descriptive research. This chapter will also review the designs and findings of the previous studies related to peer interaction in L2 learning/teaching, especially collaborative dialoguing and the application of communication technology in different aspects of language learning and peer interactions. Finally, by introducing studies about the innovative simulation, namely TLE TeachLivE, the major differences between peer interaction using communication platforms in previous studies and immerse simulation in this study will be examined.

Conceptual Framework

The hypothesis and the design of the prospectus is mainly built up on Sociocultural Theory (SCT) and the idea of Zone of Proximal Development (ZPD). Sociocultural Theory is based on Vygotsky's (1978) works about the function of social interaction and mediation during the learning process. The theory emphasizes the historical and cultural context in human development and sees the human development as a social process rather than an individual one. Since language is a very important aspect of social interaction, the major principles and constructs of SCT also impact both first and second language learning.

Introducing SCT. Sociocultural theory (SCT) originated from the works by L. S. Vygotsky, a Russian psychologist in early Twentieth Century, and the works of his colleagues and students, e.g. Luria, Leont'ev, etc. It was mainly developed as a psychological theory, focusing on cognitive development through the interaction between the human inside mind and

outside world. The central idea of SCT argues that the development of human mental function is a mediated process. This developmental process takes place through language, organization and structure in different social environments such as family, schooling, work places, sport activities and peer interaction (Lantolf & Thorne, 2007).

The role of mediation is like the concrete tools that coordinate human beings and the outside material world. Vygotsky (1978) developed a similar unified theory of human mental functioning. He pointed out that, although the human mind was compromised of a lower-level neurobiological base, it had the capacity to use high-level cultural tools, e.g. language, rationality, etc. (Vygotsky, 1978). By transforming the social world through cultural tools, we ourselves and the ways we live are also changed. The idea of semiotic mediation is adapted from the French psychiatrist Pierre Janet (1928), as Vygotsky (1981) explains, "a sign is always originally a means used for social purposes, a means of influencing others, and only later becomes a means of influencing oneself" (p. 157).

According to Vygotsky (1978), sign and tool are two different aspects of mediated activity. The essential differences between sign and tool are the different ways that they orient human behavior. The tool's function is externally oriented by conducting human influence toward the object of activity, while the sign is internally oriented by aiming at mastering oneself (Vygotsky, 1978). The use of signs demonstrates that there is no predetermined internal system and it is the mediated activity that brings human development to a higher psychological function, or higher behavior (Vygotsky, 1978).

On the basis of the works of Vygotsky (1978), Luria and Yudovich (1972), Lantolf and Thorne (2007) identified two forms of mediation in the area of language learning, one by regulation and the other by symbolic artifacts.

When a child learns a language, the language is not only a tool that refers meanings and objects, but also a powerful way to reshape and regulate the child's cultural perception and concepts. According to Luria and Yudovich (1972), the subordination of a child's action and thinking to external social speech brings its mental and physical activity to a higher level of development. In other words, by participating in social activities, the linguistic means help children regulate their own activities. The development of regulation is concluded by Lantolf and Thorne (2007) into three stages: object-regulation, other-regulation and self-regulation. The first stage includes the case of children being regulated by objects and children using objects to regulate mental activity. The second stage includes implicit and explicit mediation, also described as scaffolding by parents, teachers, or peers. The final stage refers to the ability to accomplish activities with minimal or no external support.

The symbolic tool, like the sign explained by Vygotsky (1978), is inwardly or cognitively directed. It controls and reorganizes our psychological processes. Lantolf and Thorne (2007) mention language as "the most pervasive and powerful cultural artifact that humans possess to mediate their connection to the world, to each other, and to themselves" (p. 205). Just like a blueprint serves as mediation between architect and the real material building, the language bestows humans the ability to talk and think about things displaced in time and space. The primary way of using language to regulate our mental functioning is private speech. Private speech coveys meaning which depends on shared knowledge and social context. Considerable research has been done on the private speech of a child's first language. (e.g. Wertsch, 1985). Many second language researchers are now investigating the cognitive function of private speech in the case of second language learning (Frawley & Lantolf, 1985).

Internalization and ZPD. Internalization is one of the core concepts in SCT. This notion has been a part of many twentieth-century psychological theories. As mentioned above, Vygotsky (1978) rejected the predetermination of internal systems. Therefore, the major issue is how external processes are transformed to create internal processes. Vygotsky (1978) named this internal reconstruction of an external operation as "internalization".

Vygotsky constructed a functional and structural relationship between external social process and internal psychological process. During the development of internalization, the internal process does not simply copy the external process. Vygotsky (1978) stated that "it goes without saying that internalization transforms the process itself and changes its structure and functions" (p. 57). In Leontev's (1981) words, "the process of internalization is not the transferal of an external activity to a preexisting, internal 'plane of consciousness': it is the process in which this plane is formed" (p. 57). However, Wertsch (1985) argues that the use of the word "transferal" is not appropriate. Rather, "formation" is a more precise word to describe the development of internal mental functioning in which children master the social signs. As Zinchenko (1985) also notes, "internalization is the activity-semiotic transformation not of tools, but of their meanings" (p. 102).

Vygotsky (1978) listed a series of transformations in the process of internalization: a) an operation that initially represents an external activity is reconstructed and begins to occur internally; b) an interpersonal process is transformed into an intrapersonal one; c) the transformation of an interpersonal process into an intrapersonal one is the result of a long series of developmental events. Vygotsky's (1978) well-known formulation is that "every function in the child's cultural development appears twice: First it appears in on the social level, and later on

the individual level. First it appears between people (interpsychological), and then inside the child (intrapsychological)" (p. 57).

By clarifying the connotation of internalization, it is understandable why Vygotsky (1987) proposed that the key to internalization lies in the unique human capacity of imitation to others. The imitation mentioned by Vygotsky (1987) does not imply a mindless mimicking of everything happening around the child, but rather "the source of all the specifically human characteristics of consciousness that developed in the child" (p. 210) and "the source of instruction's influence on development" (p. 211). Vygotsky (1978) quoted the findings of other psychologists that a person could only imitate that which is within one's developmental level. For this reason, the learning process of a human is different from the imitating behaviors of animals. Animals are incapable of learning in the human sense of the term. Therefore, by reevaluating the role of imitation, Vygotsky (1978) proposed that imitation was of fundamental importance to the relationship between learning and development of children. One direct change that could be influenced by this assertion is the test of children's' development levels. Current testing systems of mental development only consider independent activities and not imitative ones. By considering the imitative ability, people could better predict children's overall development level beyond the limits of their own capabilities (Vygotsky, 1978).

As to the area of SLA, child language researchers found that imitation plays an important role in language acquisition. Speidel and Nelson (1989) noted that imitation is a complex, intentional and self-selective behavior on the child's part. Tomasello (2003) found that the imitation of language is not driven by frequency of exemplars in the input. An especially important feature of imitation, linked to internalization discovered by language researchers, is that there could be a delay of a day or more of the imitative process after a given pattern appears

in the learner's linguistic environment (Meltzoff, 2002). Saville-Troike (1988) and Centeno-Cortes (2003) documented a number of examples of both delayed and immediate imitation produced by second language (L2) children. By studying these documented examples on how L2 learners use private speech in language classrooms as a means of internalizing the linguistic features in their environment, Ohta (2001), Centeno-Cortes (2003), and Lantolf and Yanez (2003) made important findings that L2 learners appeared to have their own agendas for the linguistic aspects that they decided to focus on at any given time. This agenda does not necessarily coincide with the intent of the instructor (Lantolf & Thorne, 2007). These findings are important to L2 teachers on deciding appropriate pedagogical intervention that can maximally promote student learning.

The Zone of Proximal Development (ZPD) is a very important concept created by Vygotsky (1978) and has great impact on developmental psychology, education, and applied linguistics. To fully understand the concept of ZPD, one should first review Vygotsky's ideas on learning and development.

To explain the interaction between learning and development, Vygotsky (1978) first illustrated three theoretical positions regarding the relation between development and learning. The first position focuses on the assumption that processes of child development are independent from learning. From this point of view, learning is a purely external process and not actively involved in development. Similarly, the classics of psychological literature assume that development is always a prerequisite for learning. This position is based on the premise that learning trails behind development and development outruns learning. The second theoretical position equates development with learning. This position is based on the concept of reflex, which indicates that the process of learning is completely and inseparably blended with the

process of development and that both processes occur simultaneously. The third position combines the two previous positions. It argues that development is comprised of two inherently different but related processes. On the one hand, maturation depends on the development of a nervous system. On the other hand, learning itself is a developmental process.

However, Vygotsky (1978) raised a new position that is different from the three above. By studying Thorndike's research, Vygotsky (1978) argued that "learning is more than the acquisition of the ability to think; it is the acquisition of many specialized abilities for thinking" (p. 83). Instead of lagging behind or coinciding with development, learning should be in advance of development. Vygotsky (1978) later introduced two developmental levels to explain this position. The first level is the "actual development level", which is the level of development of a child's established mental function; the second level is a "dependent level", which is the potential level of development that a child could achieve with the help of others. Learning happens in the process between the two levels and provides an impetus for development. The distance between the two developmental levels is called the "zone of proximal development". Vygotsky (1978) concludes the most quoted definition of ZPD as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86).

By introducing the idea of internalization and ZPD, Vygotsky made an effort to deal with two practical educational issues: one has been mentioned as the assessment of children's cognitive abilities; the other is the evaluation of instructional practice. Since good learning should be in advance of children's development, Vygotsky (1956) claimed that "instruction is good only when it proceeds ahead of development, when it awakens and rouses to life those

functions that are in the process of maturing or in the zone of proximal development" (p. 278).
The issue is also motivated by the intrapsychological outcomes stemming from interpsychological functioning.

Michael Cole (1985) held a wider view and provided the background knowledge of SCT and ZPD. The collective farms of Soviet Republic in Central Asia introduced rudiments of education built around literacy. Not only modern farming methods but also a new language and ideology are introduced into these areas. The special period and circumstance created the opportunity for cross-cultural research and data for Luria. A. N. Leont'ev, the third founder of SCT as well as Vygotsky and Luria, contributed to the concept of "activity" as the unit of analysis that could serve as the basis for a cultural theory of cognition. Cole (1985) also shared the contributions with the SCT from Western European and American social science. For instance, S. F. Nadel (1951) addressed the problem of units of analysis and arrived at a formulation similar to Leont'ev's notion of activity; Rumelhart's (1978) proposed the idea of schemata, and K. Nelson (1981) discussed the mechanism of schema acquisition.

Cole (1985) connected the notion of ZPD to Fortes's (1970) description of the basic mechanism of education in African Tale society. Again, Fortes (1970) closely related children's learning behavior to their social structure and considered learning's function as the motivation of development. Cole (1985) illustrated several other examples of learning activity that supported the ZPD theory: Kulah's (1973) proverb learning game, the weaving apprentice of Zinacantecan women, and the Lave's (1978) study of tailoring in Liberia. These examples demonstrated that neither verbal or physical learning is separable from the social and cultural context.

SCT and the language learning. Vygotsky's concept of imitation, internalization and ZPD serve as the theoretical basis for many studies in language learning. For Vygotsky, language

is viewed as a semiotic tool; that is, language is seen as the means by which humans achieve the goals of social living (Ellis, 2008). As a psychologist, Vygotsky was concerned with the relationship between language and thought and saw language as the means for mediating higher levels of thinking. Linguists like Halliday, however, were more concerned with language as a communication tool and how communication shapes language itself (Wells, 1994). According to Wells (1994), despite the differences, Vygotsky's SCT shares important conceptual basis for linguistic theories. They both view language as a particularly powerful semiotic tool that "encodes the culture's theory of experience, including the knowledge associated with the use of all other tools" and "enables tis users to interact with each other in order to coordinate their activity and simultaneously to reflect on and share their interpretations of experience" (p. 72).

SCT and its related scaffolding metaphor are often used as the conceptual basis for language learning/instruction studies. The term "scaffolding" was first explained by Wood, Bruner and Ross (1976). The notion was developed in 1970s from a qualitative study of six infants for 10 months as they and their mothers played games. The concept of scaffolding was defined in the work of Bruner (1983) as "a process of 'setting up' the situation to make the child's entry easy and successful and then gradually pulling back and handing the role to the child as he becomes skilled enough to manage it" (p.60). The function of scaffolding is to "reduce the degrees of freedom in carrying out some tasks so that the child can concentrate on the difficult skill she is in the process of acquiring" (Brunter, 1978, p. 19). According to Wood (1988), scaffolding is interactive when two or more people are mutually engaged. Scaffolding is not simply another word for help. It refers to the assistance provided by certain interactive modes that will move the learners to a new and more advanced level of knowledge. Compared to ZPD,

scaffolding is a more rigid structure, in contrast with the more fluid dynamics of collaborative work, like the work in ZPD (Gibbons, 2003).

In pedagogical contexts, scaffolding includes both supportive structure and collaborative construction. Walqui (2006) concluded three kinds of scaffolding modes in pedagogical practice: a) the designed curriculum progression to help students achieve certain knowledge or tasks from easy to difficult; b) a particular activity serves as the scaffold in class; c) the assistance provided in moment-to-moment interaction. These scaffolding modes covers the pedagogical situation from macro to micro, from planned to improvised, and from structure to process (Gibbons, 2003; van Lier, 1996). According to the definition and connotation of scaffolding, any type of scaffolding should be contingent, collaborative and interactive. Van Lier (2004) developed six central features that are shared among all three pedagogical scaffolding: continuity, contextual support, intersubjectivity, contingency, handover/takeover and flow. These features help teachers monitor the effect of scaffolding during the pedagogical process.

In SLA area, the second language learners are learning both a new language and learning other things through the medium of language. To a certain degree, the language learning activity is more related to social context than the other learning. Gibbons (2002) pointed out that, considering the varied background of English as Second Language (ESL) students, it is critical to know not only how to build on what students already know, but also provide scaffolding that is responsive to the need of ESL students. Scaffolding theory could be applied in different aspects in ESL teaching such as classroom talk, listening comprehension or curriculum development (Gibbons, 2002). Rather than simplifying tasks for them, appropriate support could help them engage in more cognitively challenging learning tasks.

Walqui (2006) summarized a number of scaffolding instruction approaches for English language learners in secondary schools. The general principles of the approaches are cyclical curricula and explicit explanation to students. Cyclical curricula are different from a linear progression by reintroducing concepts at higher level of complexity. Another important issue ~~is~~ that teachers should keep in mind is that scaffolding support is temporary. As long as the instructor observes that students are capable of handling tasks on their own, responsibility should be handed over to students. Walqui (2006) then listed six main types of instructional scaffolding: modeling, bridging, contextualization, building schema, re-presenting text and developing metacognition.

In modeling tasks and activity, teachers will first provide a clear working example for students. Besides, it is important to model students' language performance by sharing the examples of their work.

Bridging is a kind of approach that builds new knowledge on the basis of what students already know. The common instructional strategy is to use anticipatory guides to activate students' prior knowledge and then introduce a new topic. Another important aspect of bridging is to establish a personal link between the students and the subject matter. Gibbons (2002) uses several examples to explain the importance of context in language learning. Effective teachers should know how to turn dry and dense academic language from the textbook into students' familiar language experience. Teachers may provide verbal contextualization by creating analogies and metaphors that bring complex ideas closer to the students' word experience.

Schema helps people to organize knowledge and understanding. Building schema means instructors should help students organize the whole structure of a certain course or topic before

teaching the content. The skeleton of a lesson help the students tolerate ambiguity, which is one of the most important features of a good language leaner (Rubin, 1975).

Re-presenting texts motivates students to transform the language content and structure that they learned from one genre to anther genre, e.g. adapting an article from a magazine into a play. Such activity will maximize the students' participation in the language learning class. Sometimes the teamwork also provides a good platform for peer communication. The students will engage in instructional conversations as the teacher monitors the whole class.

Metacognition has been defined as "the ability to monitor one's current level of understanding and decide when it is not adequate" (Bransford et al., 1999, p. 35). It involves the application of learned knowledge and prediction of future performance. One technique suggested by Walqui (2006) is that of using posters as the visual reminder for students of what they have already done and what they will be capable of doing.

Besides the instructional scaffolding in the instructor-students/expert-novice interaction, the relationship between novice learners is also important in scaffolding construction. Such scaffolding is defined as "collective scaffolding" (Donato, 1994). The idea of collective scaffolding is not simply that of advanced learners helping the lower leveled ones. Studies find out that the collaboration of peers will yield better production than the individual work of students (Gibbons, 2002). Moreover, tutoring other students is a valuable experience to recollect, clarify and improve one's own knowledge and skills.

In the last decade, computer-assisted teaching/learning was quickly developed. Different computer-assisted language learning (CALL) programs are now applied in the SLA area. Now, researchers are finding that the technological tools in pedagogical practice could also provide scaffolding help to the language learners. For example, the computer-mediated glosses and

dictionaries that provide immediate help of interpreting meanings of new words during the reading process can work as a scaffolding tool in language learning (Miyasako, 2002; Yoshii, 2006; Knight, 1994; Loucky, 2003). In recent years, with the advancing communication technology and devices, studies on the assistance of technology in the language learning process have provided new aspects on SCT and its application in SLA area (Li, 2010; Mendelson, 2010).

There are two general misconceptions about ZPD and scaffolding in SLA area: one is regarding the ZPD as the same thing as scaffolding; the other is considering the ZPD as the same as Krashen's i+1. Scaffolding refers to any type of expert-novice assisted performance. In such interaction the main goal is to complete certain tasks rather than dealing with the notion of development. With regard to misconception of the ZPD and Krashen's i+1, Krashen's concept focuses on language acquisition device, which is assumed to be quite similar to all the L2 learners. The result of the development of L2 learners' i+1 is difficult to accurately predict. In terms of ZPD, development can be predicted in advance based on the learners' responsiveness to mediation (Lantolf and Thorne, 2007).

Peer Interaction Studies in SLA based on SCT

As it is listed above, SCT impacts many areas of language learning research. One important area is SLA, especially the role of peer interaction in the second language learning process. This part of literature review will summarize the methodology used in peer interaction studies based on SCT and the findings of related studies on the effect of peer interaction in second language learning, especially for those studies on collaborative dialoguing.

Methodology in sociocultural research. The methodology employed by Vygotsky and adopted by SLA researchers in the Vygotskian tradition is known as the "genetic method". Compared to the mainstream SLA research, it focuses more on the situational and didactic

contexts in which learner utterances are found rather than on language in isolation. This methodology also emphasizes the examining process by which new functions emerge rather than on the products of learning. To focus on the process of learning, a method called "experimental-development" by Vygotsky is used. That is, learners are presented with tasks that are beyond their immediate capabilities and then provided with some form of assistance to enable them to solve the task (Ellis, 2008). Vygotsky (1987) specified four domains in which the genetic approach could be applied: phylogenesis (the biological development), sociocultural history (the cultural development), ontogenesis (individual development over the course of his/her life) and microgenesis (development taking place over the course of a particular interaction in a specific sociocultural setting).

Most of socioculturally informed research in SLA employed the microgenetic method, which is aimed to uncover the stages through which a learner passes in route to achieving self-regulation. Lavelli et al. (2004) listed four key characteristics of the microgenetic method: (1) individuals are observed through a period of change, (2) observations are conducted before, during and after the period of change, (3) observations during the period of transition are conducted regularly, and (4) observed behaviors are analyzed intensively, using both qualitative and quantitative methods, in order to identify the processes that arise in the developmental change. Identifying microgenetic growth involves looking for evidence of shifting from other-regulated behavior to self-regulated behavior. Sociocultural research using the microgenetic method has been largely qualitative in nature and many SCT studies are laboratory-based (Ellis, 2008). The choice of episodes for analysis is determined by related research questions. To identify the patterns of interaction, it is necessary to obtain a full understanding of the sociocultural context in which the episodes of the study occurred. This requires examining how

the participants approach an activity, what roles they assume, and the level of involvement and contribution of each participant.

To fulfill the intensive analysis of episodes of language in peer interaction, three main methods of descriptive research are usually applied: interaction analysis, discourse analysis and conversational analysis (CA).

Interaction analysis includes the use of a schedule consisting of a set of categories for coding specific classroom behaviors. Long (1980) referred to three different types of interaction analysis: in a category system each event is coded every time it occurs, in a sign system each event is recorded only once within a fixed time span, and in a rating scale an estimate of how frequently a specific type of event occurred is made after the period of observation. Frequently, the categories listed in a schedule reflected the researcher's assumptions about what behaviors were important and were not theoretically motivated.

Discourse includes all aspects in communication, speaking or writing. Discourse analysis is always used as a device for systematically describing the kinds of interactions that occur in language classroom. Discourse analysis focuses not only on the function of individual utterances but also on how these utterances combine to form larger discoursal units. According to Antaki (2008), four core features can be found in discourse analysis: (1) the talk or text is to be naturally found; (2) the words are to be understood in their co-text at least, and their more distant context if doing so can be defended; (3) the analyst is to be sensitive to the words' non-literal meaning or force; (4) the analyst is to reveal the social actions and consequences achieved by the words' use.

Similar to discourse analysis, conversational analysis (CA) is also an often used tool for micro-analysis of classroom discourse and, in particular, for examining the sequential

development of classroom talk (Ellis, 2008). Seedhouse (2004) identified five key principles of conversational analysis: 1) indexicality (i.e. the use that participants make of shared background knowledge and context), 2) the documentary method of interpretation (i.e. each real-world action is treated as an exemplar of a previous known pattern), 3) the reciprocity of perspectives (i. e. the participants' willingness to follow the same norms in order to achieve intersubjectivity), 4) normative accountability (i. e. there are norms that are constitutive of action and enable speakers to produce and interpret actions), and 5) reflexivity (i. e. the same methods and procedures apply to the production and interpretation of actions). CA is most used for classroom or laboratory communication to contrast the interactions that occur in more natural settings. In the term "CA for SLA", Markee and Kasper (2004) describes CA in classroom interaction as a tool "for researchers to be able to assess what environments may be more or less conductive to learning…because such setting would recommend themselves as scenes on which to focus research efforts" (Kasper, 2004, p. 452).

Interaction analysis, discourse analysis and CA are all important tools in ethnographic approaches to qualitative studies. Compared to CA, interaction analysis and discourse analysis are used more for studying communication in a naturalist setting. Besides, the research contents of discourse analysis are much broader than CA, including both verbal and writing texts as well as other subtle language signs in social situations. The focus of CA, such as the organization of turn-taking (Van Lier 1988; Seedhouse 2004), the structure of repair sequences (Kasper 1986, Seedhouse 1999), the basic structure of classroom discourse, and how context is jointly constructed by participants are more closely related to the research questions of this particular study. Therefore, CA will be used as the main method to analyze the interaction between participants and the digital characters in the simulation.

Peer interaction in SLA. Peer interaction is an indispensable part in L2 learning. Philp

and Tognini (2009) once suggested that peer interaction differs in purposes and leads to teacher-

led interaction in foreign language instructional contexts. They identify three distinct purposes of

peer interaction: "(1) interaction as practice, including the use of formulaic language; (2)

interaction that concentrates on the exchange of information; and (3) collaborative dialogue

including attention to form" (p. 254). The benefits of interaction as a practice include the

provision of abundant examples for the learners to eventually use creatively, the contextualized

practice of language forms, and an increased social acceptance among the language learners

(Tognini, Philip & Oliver, 2010). Interaction that concentrates on the exchange of information

may force the language learners to engage with both form and meaning under communication

pressure. Interaction as collaborative learning is best recognized through a sociocultural

framework and could be an exploration of language used for learning. In a conversation, learners

may scaffold one another to enable communication, and the discourse represents the learner's

proximal development (Tognini, Philip & Oliver, 2010). Different studies have been done to

explore the effect of peer interaction in multiple aspects of SLA.

Psychological impact on second language learning in peer interaction. Comparing to

teacher-learner interaction, research shows that common peer interaction can reduce the anxiety

and stress in language learning. In their early studies, Lightbown (1983), Long and Porter (1985),

and Seliger (1983) asserted that cooperative learning addressed students' affective needs and

encouraged students to speak in the target language. Long and Porter (1985) listed five

pedagogical arguments for the use of group work in SLA, including its benefit of increasing

language practice opportunities, improving the quality of student talk, helping individualize

instruction, promoting a positive affective climate and motivating the language learners. Long

and Porter reviewed these arguments and provided a psycholinguistic rationale for group work in second language learning. By examining the evidence of work on the role of comprehensible input in SLA and on the nature of peer conversation, Long and Porter found these findings supported the claims that group work was helpful to both the quantity and quality of practice as well as second language learners' accuracy of production. Later studies such as the study conducted by Bailey, Daley and Onwuegbuzie (1999) on foreign language anxiety and learning style supported the early research on cooperative learning by finding out that responsibility and peer-orientation are the two learning style variables that contributed significantly ($F_{(2,143)}=4.39$, $p<.05$) to the prediction of foreign language anxiety. Specifically, students who are not responsible for attempting assignments and who preferred not to learn in cooperative groups tended to have higher levels of foreign language anxiety. In other words, actively engaging in group talk and peer interaction may help to reduce the anxiety of learning foreign languages. The study suggested that foreign language instructors prefer relying more on small cooperative learning groups to reduce the need to call on students at random. Tognini, Philip & Oliver's (2010) interviews with 120 students about their perceptions of classroom interaction also demonstrated that both primary and secondary learners regarded peer interaction as a positive way of language learning and older learners reported a preference for peer interaction over teacher-learner interaction. Some declared that it was less intimidating and less stressful than interacting with the teacher. Moreover, both primary and secondary learners in this study thought interaction with their peers helped their learning. Secondary students mentioned the benefits of working with someone else, in particular the opportunities to pool knowledge and help each other out, especially with new or unfamiliar work.

Cognitive development of second language learning in peer interaction. Studies

supported the claim that peer interaction could be effective for language learners to improve their

performance by the acquisition of phonological, grammatical and sematic language forms. In the

later version of the Interaction Hypothesis, Long (1996) has recognized that implementing

negotiation can induce learners to modify their own output, which may promote acquisition.

From a SCT perspective, Lantolf and Pavlenko (1995) suggest that acquisition involves "the

dialogic interaction that arises between individuals engaged in goal-directed activities" (p.110).

For example, Lynch and Maclean (2001) explored the effects of poster demonstrations on

learners' speaking performance by feedback. The results indicated that the less proficient

learners showed improvements in phonology, syntax and lexis after the interaction of six cycles

of poster communication. Not only do the products of interaction show the improvement in

language performance, but they also have advantage over other interactive activities in the

classroom. He and Ellis' (1999) comparison between the effect of teacher-controlled

communication and peer interaction of a listening activity and vocabulary acquisition showed

that not only was peer interaction effective in language learning, but also the peer interactive

groups outperformed the non-interactive group and the teacher-controlled group in terms of

comprehension and delayed posttests on recognition of the vocabulary. In he and Ellis words,

"interactions that provide opportunities for learners to use and negotiate new vocabulary items in

dialogically symmetrical discourse seem to create better conditions for incidental vocabulary

acquisition than interactions in teacher-controlled exchanges that restrict the kind of

interpersonal activity claimed to foster learning" (p.131).

Peer interaction may also enhance the learners' language awareness, which leads to the

improvement of their performance. One way of achieving this goal is by encouraging learners to

attend the forms during meaningful interaction through corrective feedback (CF). CF can be either implicit or explicit through recast, clarification request, metalinguistic clues, elicitation, repetition and explicit correction. According to Ellis (2008), CF will help construct ZPD for the target features and internalize target forms for the language learners to use them independently. Using both a cognitive and a sociocultural theoretical perspective, Sato and Ballinger (2012) explored raising language awareness using corrective feedback in peer interaction. The participants were first provided with CF strategy instruction, and then engaged in communicative peer interaction activities. Pre- and Post-tests showed that the frequency of CF and self-initiated modified outputs were significantly increased as well as the overall accuracy of spontaneous production. The study concluded that that language awareness could be enhanced through peer interaction while a reciprocal mindset among learners played a significant role in deciding its outcome.

It is worth noting that some features of a communicative partner will affect the efficiency of peer interaction. Pinter (2007) in her study of peer interaction in language learning tasks among 10-years old children pointed out that "one important aspect of interactions in tasks is the need to collaborate effectively with a partner and this requires an appreciation of the partner's needs" (p. 191). Also, working with the same partner over several repetitions could help with the growth of children's confidence (Pinter, 2007). Therefore, sophisticated skills of manipulating attention and appropriate communicative strategies for social interaction and language learning within peer groups will be critical to the outcomes of peer interaction. In this case, a programmed simulation can be featured and, most importantly, a constant and steady partner for language learners during the SLA process.

Development of L2 communicative competence in peer interaction. Besides improving

their linguistic performance, studies also show that peer interaction has positive effects on social

skills and communicative competence of language learners. A Vygotskyan sociocultural

perspective is applied in the study of Guerrero and Villamil (1994) to the analysis of interaction

during peer revision in the L2 writing classroom of the intermediate English learners. Results

showed a complex and productive interactive process that occurred during these peer revisions.

In general, the students displayed movement between self-regulation, other-regulation and

object-regulation. In other words, students were able to adjust their interaction strategy due to the

changing of tasks and demand. Meanwhile, different patterns of social relationships resulted

from the participants' stages of cognitive regulation. In a later study conducted in a writing class

of the similar context, Villamil and Guerrero (1996) conducted a deeper examination of the

communicative activities, strategies and significant aspects of social behavior in dyadic peer

revision. Analysis of the transcripts indicated that, during seven types of social-cognitive

activities, the students engaged in reading, assessing, dealing with trouble sources, composing,

writing comments, copying, and discussing task procedures. Five different mediating strategies

were used to facilitate the revision process, including the employment of symbols and external

resources, using the L1, providing scaffolding, resorting to interlanguage knowledge, and

vocalizing private speech. Four significant aspects of social behavior emerged in the peer

interaction: management of authorial control, affectivity, collaboration, and adopting

reader/writer roles. The results of the study continue to support the effect of peer interaction in

language learning. Peer revision, in this study, constitutes a unique opportunity for L2 students to

discuss and formulate ideas about their writing as well as to assist each other in the development

of discourse strategies. According to the researchers, it is in the exchange of ideas during

interaction, where both peers extend and receive help, that they are able to advance their knowledge.

Peer interaction in the classroom and laboratory can provide opportunities to demonstrate real-life interactional competence to relate to each other in spoken interaction. The ability to stay on topic, to move from topic to topic and to introduce new topics appropriately is at the core of communicative competence (Gan, Davison and Hamp-Lyons, 2008). Applying CA, Gan et al. studied the course of turn-by-turn interaction, which was characterized by intensive engagement and active participation. The results demonstrated that the participants were able to pursue, develop, and shift topics to ensure the successful completion of the assigned task, and also to display individual contribution. Provided authentic conditions of communication are established, the participants may also develop more interactional skills such as initiating, expanding or closing a topic. Studies also show that sometimes, in order to maintain a supportive and friendly discourse during negotiation for meaning in peer interaction, interactive competence is more widely practiced. Obtaining completely comprehensible input appeared to be of lower priority (Foster and Ohta, 2005). Foster and Ohta's study recorded and analyzed the incidents of negotiation moves such as learners' clarification requests or comprehension and confirmation checks where communication problems were clearly signaled. In these cases, learners usually repaired and reworded their own utterances, and assisted each other to both find the right form and to express meaning, without interrupting the flow of interaction in order to verify what the conversation was about. Most of the time, learners supported each other, frequently expressed interest in what their interlocutor said, and gave encouragement to continue. This can be regarded as a sign of successful use of the target language, especially in communicative competence. During peer interaction, the participants share their meanings while monitoring and

modifying their own and each other's utterances, minimizing overt communication breakdowns and the accompanying frustration.

　　　The limitation and the delimitation of peer interaction. However, peer interaction may also have its limits. In some native and non-native speakers' interaction, for instance, Zhu (2001) found that in a mixed group of native speakers and non-native speakers, the non-native speakers' participation in oral peer response was more limited than their native speaker peers. They tended to take fewer turns to talk and performed a largely "responding" functions during oral discussions of writing, particularly when they were performing the writer role. For example, when inspecting the turn-taking behaviors initiations, it was found that non-native speakers did not initiate interaction and discussion of their own essays or peer essays. All discussions were initiated by a native speaker. As a result, non-native speakers might not have benefited as much as they could have from the communication. However, the study also mentioned that the participants did not receive additional training on peer response. Another study by Shi (1998) compared the negotiated interaction between teacher-led groups and peer groups. By analyzing various interactive features such as comprehension checks, confirmation checks, clarification and feedback requests, self- and other-corrections, and self- and other-completion, the study found that, although peer discussions had high frequencies of negotiation, these negotiations were more restricted than the extended negotiations of teacher-led discussions. By comparing students' use of comprehension checks and confirmation checks with teachers use of feedback requests and clarification requests, the result that students used more checks than requests suggested that peer talk involves simple negotiation, compared with teacher-led talk, which showed evidence of deeper negotiation. The study attributed these discourse features to learners' limited ability in making modifications beyond the surface level.

In both cases discussed above, lack of professional knowledge on language and interaction becomes an important factor influencing the effect of peer interaction. This factor may be manipulated by providing training for peer response. In the study of Zhu (1995), students in the experimental group were trained via teacher-student conferences in which the teacher met students in groups of three to develop and practice strategies for peer response. Students in the control groups received no systematic training but only viewed a video example. The comparison of the quantity and quality of feedback generated by peer writing as well as student interaction during response session indicated that training students for peer response led to significantly better quality peer feedback and livelier discussion. Other studies' findings suggest that active and better quality peer interaction may lead to better language performance. The quasi-experimental study of Sato and Lyster (2012) first taught learners how to provide CF during peer interaction, and then assessed the effects of peer interaction and CF in L2 development. The performance of four groups were measured. One of the two CF groups was taught to provide prompts while the other was taught to provide recast. The third group participated in only peer interaction activities and the last group served as the control group. After one semester of intervention, the two CF groups improved in both overall accuracy and fluency, whereas the peer-interaction-only group outperformed the control group solely on fluency measures.

The results of the above studies indicate that providing adequate training will not only improve the quality of peer interaction but also have positive effects on the overall L2 performance. In my study, the simulation is developed under sophisticated ESOL strategies and supposed to function as a well-trained peer-to-peer interaction.

Collaborative dialoguing. The cooperation and collaboration in peer interaction also plays an important role in language acquisition. The study of Donato (1994) described the

collective scaffolding in oral activities of L2 learning class. The participants jointly managed

components of the problem, distinguished what they had produced, and used their collective

resources to obtain what they perceived as the ideal solution. The scaffolding enabled the

learners to construct the correct form of the verb even though no single learner knew this prior to

the task. The joint performance of new structures was also frequently used by individual

participants in later occasions. Swain and her co-researchers examined the contribution of

collaborative dialoguing to language learning in a series of studies. Kowal and Swain (1994)

found that collaborative dialoguing was positive in raising language awareness in a study of

adolescent, intermediate and advanced French learners working collaboratively to complete a

text reconstruction task. The results showed that the opportunity of collaborative work could

promote language learning by making the language learners aware of gaps in their existing

knowledge and raising their awareness of the links between the form, function and meaning of

words as they worked to construct their intended message. However, Kowal and Swain also

reported the effect may be different from certain grouping patterns. For example, heterogeneous

dyads worked less effectively together, possibly because "neither student's needs were within the

ZPD of the other" (p.86). Summarizing some of the previous studies, Swain (1998) commented

that the process during which "students reflect continuously on the language they are producing,

maybe a resource of language learning" (p.79). Tocalli-Beller and Swain (2007) investigated the

extent to which that ESL adult ESL learners were able to collaboratively work out the meanings

of jokes and puns. The result showed that the learners were able to work out the meanings of

these jokes, even though neither of them knew the key lexical meaning of the jokes. More

importantly, the followed-up post-test demonstrated an internalization of the meaning of the

lexical items, which supported Vygotsky's (1987) claim on the importance of play in language development.

Though Kowal and Swain (1994) found that heterogeneous grouping might have negative impact on collaborative work, other studies showed that the peers' language proficiency might not be one of the critical factors that affect the efficiency of collaborative dialogue. Storch (2001) found that the pair with the highest proficiency difference (low and upper intermediate) was more collaborative than the other two pairs. Storch therefore argues that proficiency differences may not be the major reason for a non-collaborative orientation. Ohta (2001) examined a classroom corpus of seven adult students learning Japanese as an example of peers working within their ZPD and assisting each other in speaking Japanese. The finding of her study indicated that even less proficient peers were able to provide assistance to more proficient peers. The qualitative study done by Watanabe (2008) focused on the peer-peer interaction between L2 learners of different proficiency levels. Three ESL learners engaged in different tasks: pair writing, pair noticing and individual writing with two other learners, one with a higher and one with a lower L2 proficiency level than their own. Results showed that both the higher and the lower proficiency peers could provide opportunities for learning when they worked collaboratively. The interview data on their perspective viewing their collaborative work told that all three learners preferred to work with partners who shared many ideas, regardless of their proficiency level. These findings suggest that proficiency differences are not the decisive factor affecting the nature of peer assistance. On the other hand, when both pair members attempted to talk and listen to each other, their interaction showed a more collaborative pattern. Furthermore, if their pattern of interaction was collaborative, the pairs were more likely to produce a higher

frequency of LREs, and were able to correct more reformulated items in their individually

written text, compared to the non-collaborative pairs (Watanabe and Swain, 2007).

The relationship between communication patterns and the language performance are

explored by more studies. Galaczi (2008) used speaking test scores to measure the performance

in different patterns of interaction, namely collaborative, parallel and asymmetric. The rater

awarded four analytical marks on "Grammar and Vocabulary", "Discourse Management",

"Pronunciation" and "Interactive Communication" (p.90). Interactions that exhibited high

mutuality and high equality were termed collaborative. In collaborative dyads the two

participants took turns to be listener and speaker, and none of them had a dominant role of

listener or speaker. They developed their own topics and also supported the development of the

other person's topic. Parallel interaction is more of a solo versus solo interaction while

asymmetric interaction has one dominant role and one passive role. The test scores show that

collaborative pairs and the dominant role in asymmetric interactions performed best in their tasks

and were rated higher. In contrast, parallel pairs and the passive role in asymmetric relationships

got less favorable scores. The researcher claimed that the collaborative interaction displayed

higher performance in conversation management than the parallel interaction. Not many studies

have been done on the collaborative dialoguing between English learners and the native

speakers. Dabao (2012) conducted a deeper study comparing the collaborative dialogue between

learner-learner and learner-native speakers. The thirty-two participants, eight of which were

native speakers, were paired in four dyads of intermediate-level learners, four dyads of

advanced-level learners, four dyads of intermediate-level learners and native speakers, and four

dyads of advanced-level learners and native speakers. The findings of the study confirm that

collaborative dialogue can occur in the interaction during a meaning-oriented spot-the-difference

task, with or without the participation of native speakers. The presence of a native speaker could affect both the amount and the nature of this collaborative dialogue. As a result, the intervention of native speakers brought out more lexical language related episodes (LREs), and it was more likely that the language problems were successfully resolved in learner–native speaker than in learner–learner interaction. The learner's proficiency level also had an influence on the frequency of LREs, but not necessarily on their outcome. Native speakers' lexical knowledge seemed to be the reason that they were able to provide more frequent assistance to the learners. Within this study it is worth noting that most native speakers tended to assist the learners by providing linguistic help to enhance their use and knowledge of the language, but the learners were more likely to ignore the linguistic accuracy and to stick to the communicative demands of the task and the successful communication of the message. The study concluded that "the presence of a NS interlocutor, who has a level of expertise in the language that intermediate and advanced-level learners have not yet acquired, tends to facilitate the occurrence of LREs, even when no pedagogical intervention is made to promote this form of knowledge-building activity" (p.252).

The importance of the quality of the interaction and a more detailed analysis of the patterns of the dyadic interaction among ESL students was studied by Storch (2002). According to Storch (2002), basically four different communication models emerge from the interaction between peers: a) Collaborative. This model represents moderate to high levels of equality and mutuality. In this pattern, all participants contribute to the interaction and engage with each other's utterances so that there is a perceived level of discussion and cooperativeness. b) Dominant/Dominant. In this pattern, participants contribute to achieving the goals of the task, but they pay only limited focus to the contributions of the others. Though all participants contribute

to the task, they appear to compete for control of the task. c) Expert/novice. The model

represents moderate to low equality but moderate to high mutuality. Similar to the

dominant/passive pattern, in this pattern one participant contributes more than the other.

However, unlike the dominant/passive pattern, in the expert/novice pattern, the more dominant

participant (the expert) encourages and invites contributions from the other participant. d)

Dominant/Passive. This pattern represents medium to low equality and mutuality. In this pattern

of interaction, one participant takes control of the task, while the other participant plays a more

passive role. The study also reported the relationship between the different patterns of dyadic

interaction and language development, which was measured in accordance with SCT by

examining the extent to which learning, a result of the interaction, led to development. Storch

reported that the collaborative pattern demonstrated the most evidence of a transfer of

knowledge, in contrast to both dominant/passive and dominant/dominant patterns. The

expert/novice group was in an intermediate level.

In conclusion, based on the frame of SCT, studies on peer interaction support the claim

that language development occurs in social communication. Both of the language learners'

linguistic performance and communication competence can be practiced and improved during

the interaction process. Although there are still many debates about the extent to which language

proficiency will influence the patterns and the outcomes of interaction, most studies support the

positive effect of collaborative dialogue to language development, which is helpful for further

exploration into the new era of interaction in language learning—the interaction under the

assistance of communication technology.

Language Learning in the 21st Century

Virtual learning environments used for language-learning purposes have caught a significant portion of researchers' attention. The information technology and virtual platforms extend L2 learning beyond the physical limits of the traditional classroom and provide multiple ways to practice reading, writing, listening and speaking. The interactive nature of the computer and internet based platforms also offer possibilities for more efficient language learning methods. There are two major trends in 21st Century language learning: social network and 3-D immersive environment. The social network, such as Facebook and Twitter, reshaped our notion of communication. The willingness to share and collaborate with one's own community and groups across languages and cultures can also relate to the SCT in SLA. The concrete application of these new theories materialized in the development of Computer-Supported Collaborative Learning (CSCL) projects (Mroz, 2014).

The other important trend is 3-D immersive environments. Publication on this issue only started since 2008. However, it is considered as a promising, complex, holistic, and dynamic tool for the L2 learning process (Mroz, 2014). The research with 3-D immersive environments currently focused on four key aspects: (1) the 3-D representation and immersiveness of an interactive space, (2) the avatar-based representation of users, (3) the social nature of the platforms, and (4) the multimodal channels of communication. The learning results in virtual environments are transferrable to real-life experience. As Morton and Jack (2005) have pointed out, "the assumption is that if users experience such a sense of presence in a virtual environment they will come to behave in the virtual environment in a way that is similar to the way they would behave in a similar environment in the real world" (173). Also, the studies on virtual environment interactions has positive findings on fostering collaborative learning and cooperative learning that are known to be particularly critical for L2 learning. Therefore, the

study on EL's interaction with TeachLivE, a typical 3-D immersive simulation, will also be an fundamental start for 21st language learning in virtual environment.

Using Technology for Interaction in Language Learning

Communication technology provides a different setting for interaction to occur, and thus has a subtle influence on the features of the communication related to language learning. Selfe (1992) claims that virtual environments "offer alternative spaces for academic student involvement because they offer different conversational power structures" than those of traditional face-to-face communication (p. 149). Some previous studies (Sproull & Kiesler, 1986; Walther, 1992) suggested that the lack of physical cues would lead to more egalitarian communication. Cooper and Sportolari (1997) and Walther (1996) found that, due to the perceived distance and relative anonymity, computer-mediated interactions would develop a closer relationship and a more comfortable communicative environment between the interactive parties. Besides, interaction involving computers, the internet, and simulations with virtual digital characters may have different impacts on L2 language development. Studies have been done to investigate the related topics.

Studies on computer assisted language learning (CALL) and communicative-mediated communication (CMC). In spite of the limitation of online communication, genuine interaction can happen in a virtual environment. Marmini and Zanardi (2007) added a compulsory online component to a university language learning course. The online component entails doing meaning-focused and problem-based tasks online, engaging students both individually and in small groups. During this longitude study over two years, teachers try to apply SLA theory and language teaching practices by taking advantage of information and communication technologies. Using different teaching approaches, the online interaction

platform makes more information available, and enhances problem-based, collaborative learning. The study found that the interaction is "real" in the sense that it derived from the will to communicate, and the participants naturally use various interaction modifications, such as confirmation checks, clarification requests, and recasts to achieve meaning negotiation. Murphy (2010) explored the effects of computer-mediated feedback and interaction via CMC in written mode on a reading exercises. The project was aimed to find solutions for the language learners who had limited access to finding a partner for collaborative communication. The program provided elaborative feedback in the form of hints to foster interaction and to support dyads in their attempts at self-correcting any incorrect answers. The quantitative analysis result of the comprehension scores demonstrated that students who were provided with elaborative feedback subsequently scored significantly higher on the follow-up exercise than the groups who were only provided knowledge of correct responses. The qualitative analysis of interactions suggested that, despite the fact that interaction between partners may not be as time efficient in written mode as it is in face-to-face mode, the CMC can still be effective in generating quality interaction. A computer-mediated environment may also have positive psychological impact on language learning. Wu, Marek and Yen (2012) focused their study on how peer interaction via CMC could promote motivation, confidence, satisfaction, and actual performance of students. 37 EFL students in Taiwan interacted "live" via the Internet with a native English speaker in America. Using CMC provided direct information to students in video and live lessons designed to intrigue them and inform them about the culture of the language they were learning. Also, CMC was used as the justification for the student groups to develop their own presentations. As a result, integrative and instrumental motivation, satisfaction, confidence, and actual performance all improved in the peer interaction with CMC methodology.

Compared with traditional face to face interaction, CMC may also have its distinguished advantages. By comparing face-to-face with on-line peer tutoring of the university students in Hong Kong, Jones, Garralda, Li and Lock (2006) found considerable differences between the interactional dynamics in on-line and face-to-face tutoring sessions. In face-to-face sessions, tutors took control of the discourse while in online sessions, clients were more involved and had more control of the discourse. Liu and Sadler (2003) explored peer review in electronic and traditional modes of L2 writing class. The study compared various aspects of commenting and interaction, including the area, i.e. global versus local, the type, i.e. evaluation, clarification, suggestion, alteration, and the nature i.e. revision-oriented versus non-revision-oriented. The study also investigated the impact of the observed differences on students' revisions. The findings show that the overall number of comments, the percentage of revision-oriented comments, and consequently the overall number of revisions made by the technology-enhanced group were larger than those by the traditional group were. Further analysis showed that technology-enhanced peer review worked more effectively in the asynchronic commenting mode, while traditional peer review works more effectively in the synchronic commenting mode (i.e. face-to-face interaction). The researchers found that marking on electronic word version was less face-threatening than marking a paper version of writing in red ink, crossing out sentences or using question marks in the margins, which might explain the reason why more comments were generated in electronic mode.

Collaborative dialogue can also happen in virtual communicative environments. In a study on EFL learners' dialogues in synchronous task-based CMC, Zeng and Takatsuka (2009) explored the learners' engagement in text-based dialogues regarding the use of language in fulfilling a task and how their mutual engagement impacts their language learning. The study

was conducted within a sociocultural framework, especially Swain's concept of collaborative dialogue. Language-related episode (LRE) was employed as a research tool to analyze the learners' dialogue concerning their language use during the completion certain tasks. The data analysis included the recording of online chat logs, a post-task survey investigating the learners' perspectives on the online collaborative learning, and two posttests. The findings of the study indicated that there was a very high frequency of LREs during learners' interactions. In order to achieve the task objectives, the participants did make a collaborative effort to resolve the language problems before proceeding with the collaborative tasks within the CMC context. The text-based medium amplified learners' mutual attention to linguistic form and fostered their collaborative construction of knowledge. The results showed that participants engaged in a computer-mediated language learning environment that could produce collaborative dialogue and that these environments enhanced their language learning. This was also supported by the participants' points of view in the followed up survey. Peterson's (2009) study on language learners' communicative management strategies via CMC contributed more details about collaborations in virtual world based interaction. In the text-based written communication, seven interaction management strategies were identified in sociocultural accounts of language development, such as requests for and provision of assistance, continuers, off-task discussion, task-focused discussion, self-initiated and other-initiated correction. The effective use of these strategies resulted in the production of intelligible and coherent discourse focused on the tasks. The findings suggested that the participants successfully created a discourse community based on shared norms and goals through collaborative interaction, and during the interaction they collaborated actively, engaged in correction and created ZPDs where they produced modified L2 output.

The previously referenced studies all deal with interaction in written form via CMC. There are other studies on oral interaction using computer and the Internet for language learning purposes but the number is limited. Nidia (1990) paired four levels of English language proficiency (non-English proficient, limited English proficient, fluent English proficient, & monolingual English speaker) to find out whether computers could serve as tools for oral verbal interaction between students and offer an environment to facilitate L2 learning. The quantitative and qualitative data indicated that students engaged in a great deal of collaborative behavior in both English and Spanish, and the amount of such collaborative behavior at the individual level increased as the students' level of English proficiency increased from non-proficient to limited to fluent English proficient. The most collaborative behavior occurred when there was a non-English-proficient student working with a fluent English proficient partner. In general, the more proficient participants in the dyad exhibited a greater collaborative behavior than their less proficient partners. The discourse analysis showed that the more proficient students in the dyadic interaction automatically assumed the role of tutor. They would produce comprehension checks, explanations, and translations, while the less proficient students assuming the role of tutee and tended to request help and explanations. Yanguas's (2012) study on task-based oral computer-mediated communication and L2 vocabulary acquisition indicated that, while using skype, the interaction among learners had the same effect as the face to face peer interaction. The study compared three different groups of communication dyads: face-to-face, video CMC, and audio CMC. Repeated measure ANOVA analysis was conducted on the scores of the final pool of participants (N=47) in production, recognition, and aural comprehension tests. Results showed no significant differences among the groups for production or written recognition measures, and all participants were able to retain their recognition ability after two weeks. However, one

interesting finding is that, among the groups in aural comprehension measures, the audio CMC group significantly outperformed the other two groups. The oral communication patterns were also analyzed by researchers. Using Storch's (2002) model of patterns of pair interaction via CMC in Tan, Wigglesworth, and Storch's (2010) study, five patterns were identified in English learners' interaction: Collaborative, cooperative, dominant/dominant, dominant/passive and expert/novice. The results indicated that the CMC mode provided both participants with greater opportunities for engagement and involvement in language tasks, and the communication pattern tended to be more collaborative and cooperative than the same task in face-to-face communication. In conclusion, the interaction via CMC shares many similarities with traditional face to face interaction, and has no less effect in facilitating language learning. Besides, studies suggest that by offering a different communicative environment, CMC mode has its own advantage in benefiting language learners in different ways.

Studies on simulation and the language learning. In most of the studies on CMC and language learning, the participants are still interacting with other real life peers. The effect on language learning through communication within in a virtual simulation or within a different virtual identity still needs further investigation. Some virtual communities and simulations, such as *Second Life* and *Active Worlds*, have been introduced into language learning classrooms. Active Worlds is a 3D virtual environment that allows users to own worlds and universes as well as develop custom 3D content. The users can explore 3D virtual worlds and environments that others have built using a web browser with voice chat and basic instant messaging. Second Life was developed later and with a more interactive base. It is also a 3D user-generated virtual world where users assume a virtual identity in a digital character, called an avatar, and interact with other users. This new communication media interested several researchers of SLA. Liou (2012)

designed four tasks and activities, including peer review, using Second Life into a CALL class. Students were found to be more motivated in language learning tasks and communicating in written text with their peers in this virtual world. Interviews showed that participants, including teachers and students, confirmed benefits of using 3D virtual software for English learning and teaching. Deutschmann, Panichi and Molka-Danielsen (2009) worked Second Life into their language proficiency course. The course was designed to improve social English for non-native doctoral students. The platform of Second Life was introduced to create a setting for practicing and developing their oral/aural communicative skills in English. The feedback had both positive and negative aspects. Some students felt safe hiding behind an avatar; some students also felt that the environment appealed to their creative side and that it was visually engaging. They further claimed that this promoted their participation and engagement. Negative feedback included comments that the virtual environment was too-game like to be taken seriously.

Peterson did studies on virtual world and SLA, using both Active Worlds and Second Life. Peterson (2006) once examined the interaction of non-native English speakers in Active World, in which people were presented as avatars and communicated via text. The results of the study indicate that language learners are more likely to negotiate meanings in the target language. Thus, inn Active World the consistent production of target language output is facilitated. Later, using Second Life as a virtual platform of communication, Peterson (2012) discovered a significant presence of collaborative dialogue involving assistance by statements, requests and questions. Four participants also claimed "using Second Life was more conducive to candid self-expression than a conventional language class" (p. 36). Most of the current studies about virtual simulation and language learning are explorative case studies. However, a recent study of Canto, Jauregi and van den Bergh (2013) compared the effect of interaction through

video-web, Second Life and traditional face to face interaction via quantitative data. The use of video-web communication (VC) and Second Life provided opportunities for the language learners to communicate with native peers while the traditional face-to-face class remained intact to communicate within the groups of language learners only. Communicative growth was measured by comparing oral pre- and post-tests across conditions, which assessed learners on measures of range of language, grammatical accuracy, fluency, thematic development and coherence. Results in the post-tests demonstrated that the experimental groups outperformed the control group. The post questionnaire also showed the language learners' perspective on the opportunity to collaborate with native speakers via VC and Second Life. Two experimental groups reported that "the tele-collaboration sessions had made them more aware of cultural contrasts and similarities, that they had become more confident, were able to talk more fluently, and took more initiative" (p.113).

There was one specific study that explored the communication between a virtually guiding avatar and language learners. On a virtual platform called Nordplus Blackboard, a teaching English as a foreign language network, Hansson (2005) investigated the communication and learning processes of pupils with a guiding avatar named Lady Di. From the conversational analysis, Hansson pointed out that virtual didactics were more supportive and stimulated them to stretch beyond their current zone of development. He also argued that "Lady Di provides a scaffolding quality by the way she interacts and the by way the pupils perceive of her" (p. 75). As Peterson (2011) concluded, a wide range of positive results have been found in language learning in 3D virtual space, including the enhancement of the sense of presence and motivation, access to diverse groups, facilitated interaction and involvement, and the development of collaboration and social relationships. The main weakness of using computer-mediated

communication was technological in nature. For example, the participants needed more time to be familiar with the new media, and occasional technological malfunction would hamper participation (Hampel 2006, Hauck and Youngs 2008).

Previous studies on TeachLivE. As it is introduced, TeachLivE is a 3D interactive virtual classroom that was first designed to prepare teacher candidates in universities. Though the interaction of such a virtual classroom with English learners has not been investigated yet, previous studies have been conducted to explore using TeachLivE for professional or peer communication. Straub et al. (2014) reported the data collected on professional development in preparing educators from 10 research sites throughout the nation. The results showed that the TeachLivE classroom simulator improved targeted teaching behaviors, such as questioning and giving feedback. It also showed that those improvements transferred into the teachers' original classroom settings. Chini, Straub, and Thomas' (2016) study supported these findings. The observations and assessment of the teacher candidate using the mixed-reality classroom simulator indicated that the classroom simulator created a safe, effective environment for the teacher candidates to practice a variety of pedagogical skills, such as questioning styles and wait time. The results also showed that the mixed-reality classroom was more efficient in preparing teacher candidates because the program could elicit a maximum amount practice of different pedagogical strategies within a limited length of time. The avatars in TeachLivE can be used in more complex interpersonal situations and be more individually programmed to prepare the participants for various communicative skills. Hughs et al. (2016) illustrated examples of using the avatars to help the participants deal with peer pressure, prepare for job interviews, or practice debriefing skills.

From the aforementioned studies, we can conclude that peer interaction is a very crucial component of classroom instruction. In the field of ESL instruction, peer interaction has its advantages in motivating ELs to use more of the target language. Moreover, a different communication platform will also affect language practicing and language learning in different ways. Furthermore, from the literature review we can see that using high interactive avatars in a mixed-reality classroom is innovative in the SLA area.

CHAPTER THREE METHODOLOGY

In the previous chapter I explained the conceptual framework of the sociocultural theory (SCT) and its application in the Second Language Acquisition (SLA) area. This chapter also summarized the studies on peer interaction in both traditional face to face classrooms and in virtual platforms via computer mediated communication (CMC). TeachLivE, a recent development in mixed reality classroom simulations, makes synchronous oral communication between ELs and their virtual English proficient peers possible. No study has been conducted to find out what this might mean for ELs. The proposed study aims to explore the following two primary research questions about oral interaction between adult ELs and their virtual English proficient peers:

1. What are the most common communication patterns in conversations between adult ELs and TeachLivE digital characters?

2. What factors influence the communication patterns in the conversations between adult ELs and TeachLivE digital characters?

According to Sociocultural and scaffolding theories, mutual involvement will lead to interactive scaffolding and provide more effective help for peers than imbalanced involvement (Wood, 1988). With a developed protocol for speaking tasks, the TeachLivE digital characters can be programed to provide guidance and corrective feedback to ELs in peer interaction. By studying the features of interaction between ELs and their virtual avatar peers, scholars can know more about the potential impact of applying the synchronous oral communication technology in language learning, typically when their interactive objects assume totally virtual identities.

Rationale for Research Approach

This study is a descriptive case study using the qualitative methodology and design. The purpose of descriptive research is to observe, describe and analyze certain issues and phenomenon (Gall, Gall & Borg, 2008). In this study, the research questions describe and analyze the features and process of the interactions and conversations between ELs and their digital peers and identify the related factors influencing the interactions. The number of the participants is limited, and the study is a focused and detailed one in which the conversations are carefully analyzed sentence by sentence. The main data analysis methods of the study is Conversation Analysis (CA) and Thematic Analysis (TA). CA is a qualitative research tradition that is designed to study social interaction through a detailed examination of conversation. The aim of CA is to determine and understand how speakers produce their own behaviors in conversation and how they interpret the conversational behaviors of others (Sacks, 1992), which is tightly related to the research questions of the prospectus. To accomplish this, conversation analysis employs a methodology designed to focus on various interactional/linguistic devices and resources that an individual might use during a time-at-talk. CA contains three fundamental assumptions: there is a repeatable and recurred order in the structural organization of talk, the accomplishment of this organization occurs through sequential ordering of talk, and social actions can be described within this analytic methodology (Psathas, 1995). As a research tradition, conversation analysis provides insightful analysis when it is employed (Damico and Simmons-Mackie, 2003).

CA is a reliable tradition in analyzing social interaction and communication. It is standard practice for CA studies to include the transcripts of the data, and because they display the data, the process of analysis is transparent to the readers. In this way, all of the analysis of data in the study is repeatable and replicable. CA also focuses on the details and therefore a conducts a deep

analysis of the interaction and the interaction only, without accounting for the contextual features such as the participants' social status, gender or race, etc. (Seedhouse, 2004). The details of the interaction described in the analysis will show how the participants themselves are oriented to the theories applied within the studies (in this case SCT) rather than an analyst's perspective.

In an explorative study, applying CA in this prospectus has external validity. By explicating the organization of micro-interaction in a particular social setting, CA studies may also provide some aspects of a generalizable description of the interactional organization of the setting. According to Levinson (1992), interaction is seen as rationally organized in relation to social goals. Therefore, CA studies in effect work on the particular and the general simultaneously, as it is quoted in Benson and Hughes (1991), "the point of working with actual occurrences, single instances, single events, is to see them as the products of a machinery…the ethnomethodological objective is to generate formal descriptions of social actions which preserve and display the features of the machinery which produced them" (pp. 130-31).

CA is an often used as an approach in qualitative studies in SLA. According to Seedhouse (2004), task-based learning has assumed a central role in applied linguistic research, particularly in SLA. Usually, the task is conceived as a work plan that is made before the classroom implementation of what teachers and learners will do. However, a number of studies (Markee, 2004; Coughlan and Duff, 1994; Donato, 2000; Ohta, 2000) have demonstrated that the learners are able to discuss the relevance of the construct task and switch out of the task from one moment to the next, which poses fundamental problems to an objectivist position. However, the constructs revealed by CA are more of how participants orient themselves during interaction, rather than those that may be a pre-specified perspective by an analyst. The approach provides a more objective perspective and more detailed information about the actual interaction happening

in language learning process. From a broader perspective, CA creates knowledge of how social acts are performed in interaction and how interaction itself is organized. The constructs studied therefore are those that simulate reality for the participants.

CA is basically an analyst's perspective approach. Therefore, introducing TA to the participants' interview is a supplemental way to bring in the participant's perspective. TA is a process for coding qualitative information. It is a common approach used in different fields such as psychology and education to analyze research questions related to people's experiences, views, perceptions, understanding and representation. In this prospectus, data will be cross-examined by two different researchers at the same level of professional knowledge and training.

Participants and Research Setting

The study focuses on the population of adult ELs of the research institute. Several studies have been done to identify the difficulties of international students studying in post-secondary schools in English speaking countries. The first important concern for them is the language barrier. According to the survey done by Robertson et al. (2000) in Australia, both local educational staff and students emphasized that language was a key source of difficulties in teaching and learning. The students also manifested a lack of confidence using English. The language difficulties included listening comprehension of class lecturers, uncomfortable feelings of their oral performances in the presence of native speaking classmates, as well as the colloquial language, writing difficulties, and problems of interpretation. According to the interviews of Sawir (2005), the international students suggest several factors that prevent them from improving effective communication in English. They mentioned issues such as the English support programs focus too much on grammar rather than communicative competence, and they spend too much time practicing reading and writing but they do not have many chances to speak with

native speakers. These features of our population, English learners whose language proficiency impedes their performance in post-secondary education, indicate that they need to practice oral communication and spoken language in a setting that is similar to real life communication, which could prepare them to handle the conversation and discussion in classrooms with native speakers. The new communication technology of TeachLivE may provide an opportunity for us to explore whether a simulated class can create this more comfortable virtual environment and reduce their anxiety to use the English language, or even enhance their language proficiency and help them adapt to the new culture and language environment.

IEP at the university. In this study, eight volunteer participants were recruited from the international students at the intensive English program (IEP) at the university. The IEP is a language school offering services that enhance research and instruction in language learning for international students who come to the university to improve their English language proficiency for academic, professional, and personal reasons. The IEP is accredited by the Commission on English Language Program Accreditation (CEA) and agrees to uphold the CEA standards for English Language Programs. At the IEP, the academic year is divided into three semesters: fall, spring, and summer. The ELI semester schedule follows the university semester schedule. The teachers at the IEP are highly trained and experienced faculty who hold masters' and doctoral degrees in Teaching English to Speakers of Other Languages (TESOL), Linguistics, and other related fields.

The goals of the IEP, as quoted from their student handbook, are to: 1) Prepare students for graduate or undergraduate studies by offering a program of courses and activities that allows students to systematically progress in order to attain competency in the English language

necessary for performing at the university level; 2) Offer enough electives to allow professional, non-academically-bound students to create a curriculum of English language instruction in order to enhance their professional development; 3) Provide students, as a transition to the universities, the means to participate in the culture of the United States by offering opportunities to experience the community through field trips and other activities; 4) Serve as a liaison to promote better multicultural awareness and appreciation between the international students and the community; 5) Ensure the quality of instruction that is provided through effective hiring and training procedures of the teaching staff and ongoing staff developments; 6) Furnish a forum for practicums necessary for students in the TESOL Master's program; 7) Strive to maintain a balance of students from diverse cultures through active recruitment; 8) Provide support services to assist students in their academic pursuit as well as social and personal adjustments. The goals of the IEP aim to provide high quality, professional classes adapted to students' needs at different level.

To fulfill the above goals, the IEP provides five different language programs to the students:

Access [institute name] —Access [institute name] combines intensive English studies with undergraduate courses, providing access for students planning to pursue a degree at the university. The program offers students the opportunity to join the university undergraduate classes while fulfilling English proficiency requirements. The program provides up to 12 credit hours of transferable undergraduate courses. The intensive English classes are designed to improve proficiency and the classes are taught by full time faculty members. The students enrolled in this program are required to have completed high school education and a minimum

test score of SAT 460 math 460 reading or ACT 19, however no minimum test score is required if the evaluated high school GPA is 3.0+.

Intensive English Program—the four-semester Intensive English Program includes 24-25 hours per week of instruction in all areas of the English language including IELTS and TOEFL test preparation courses. This five-level (foundations, beginning, intermediate, high-intermediate, and advanced) program includes basic components of Grammar, Reading, Writing, and Communication Skills. Each level lasts one semester. For mid-term intakes, students test into the second half of a level and complete that level in eight weeks; they then continue to a full, semester-length level. The program is built to help students achieve English proficiency for academic, personal, and professional development. The program provides IELTS and TOEFL preparation courses, small class sizes, unique cultural programs and activities, and collaborative technology labs. All courses meet five days a week for 50 minutes each, with the exception of Listening, Speaking, Communication Skills, and TOEFL (or other electives). These courses meet for four days a week for one hour and twenty minutes each.

Students enrolled in this program are required to have high school completion but no minimum GPA is required, and they must be at least 16 years of age. According to the director of the IEP there are 205 students, among which the beginning level has 17 students, the intermediate level 78, the high-intermediate level 59, the advanced level 31. The students are from different cultural backgrounds, coming from approximately 32 countries (including the U.S.), and approximately 15 different languages are spoken by the students. The top five countries as of the semester in which the study was conducted were Saudi Arabia (35%), Kuwait (20%), China (9%), UAE (6%), and Venezuela (5%). Arabic is the major first language spoken by the students. Students are encouraged to spend ten hours each day studying English both in

classes and at home while attending the IEP. The participants had their language proficiency assessed by a placement test before starting their classes.

Recruiting participants. The design of the study aims to explore the communication between English learners and the digital characters in the simulation, and the potential scaffolding from the digital character for the English learners to improve their communication skills. Therefore, the recruited participants should meet the following two qualities: a) the participants' language proficiency should be adequate for basic oral communication in certain topics; and b) the English proficiency of the participants should have space for further improvement. Accordingly, the participants at intermediate English proficiency level would be chosen for the study. Intermediate level participants from IEP will be students in their Level 2. The participants' recent English proficiency scores fall in the 60-75 (TOEFL iBT) or 5.5-6 (IELTS), which places them at the intermediate English proficiency level. The participants are chosen from the IEP for two reasons: a) students at IEP are motivated in improving their English proficiency; and b) the proficiency levels of students at IEP are well measured by standard tests and placement tests. The participants were recruited among the intermediate level English learners, with the consideration of representing the diversity of gender, first language and cultural backgrounds. The sample selection process was convenience sample (Gall, Gall & Borg, 2008). The researcher introduced the program in level 2 student classes and collected the information from the volunteers who were interested and had time to attend the TeachLivE sessions. Among the eight participants, six of them were female and two of them were male. Seven of them were from mid-east countries such as Saudi Arabia, Kuwait and UAE, whose first language was Arabic, and one of them was from Venezuela, South America, whose first language was Spanish.

TeachLivE lab. The TeachLivE™ setting laboratory (TLE) served as the platform for the participants to engage in a group discussion with five digital characters. The lab contains a high definition monitor, a webcam, speaker, and an Internet connection. With pre-designed background stories and behaviors of digital characters, and with human-in-the-loop interactions, the lab provides an interactive, authentic simulation. During their interaction with the simulation, the participants wore a portable microphone and their movements were tracked by a motion-sensing input device (Kinect™). The digital characters are controlled and animated by interactors. An interactor is a trained professional for improvising performance in educational settings following certain instructions and protocols to fulfill the objectives of different TeachLivE sessions. The interactor impersonates all five digital characters as well as manipulates their body languages. The interactors of TeachLivE are very familiar with the personality and background profiles of all the digital characters. Their voices are also changed through voice modified facilities. Therefore, the users of the simulation hear different voices from different digital characters though they are all from the same interactor. In this project, there are two interactors chosen because of their previous working experience with ELs.

The high-definition flat-screen television was located close to the wall of the front of the room, roughly 12 feet from the entryway. The task required the participant to be a leader for a classroom group discussion. A chair was set in front of the screen for the participant to sit, as if he/she is sitting among their classmates. The researcher sat at the back the lab room, behind the participant and out of the participant's sight. The mixed-reality virtual high school classroom was shown on the screen (figure 2). The virtual classroom space visible on the screen is a large room with one back wall having two bulletin boards and a large blackboard in between, two white side walls with white boards on them. The digital students sit at two trapezoid-shaped

tables. The digital characters Kevin, CJ and Ed sit at the left table while Sean and Maria sit at the right one. Their backpacks are at their feet and the students are sitting casually in their seats. The whole classroom set is very similar to the most common high school or college classroom. The digital characters have different body poses and expression to show their mood or emotion but will not stand up and move around the classroom. The digital characters cannot talk at the same time. They can talk to each other but communication among the digital characters is not encouraged unless it is necessary since the major research question is to investigate the communication between ELs and the digital characters.

Figure 2: TeachLive high school virtual classroom environment

Currently there are six digital characters in high school virtual classroom. Five of them are selected except for Martin, the one with attention disorder, for this task does not require the participants to practice their classroom management with students of special needs. The high school digital characters used in this study will conveniently reflect the actual age range of the participants (figure 3). The TeachLivE lab has developed the digital characters' personalities to represent the typical students of a high school class. The personality designs reflected Long's theory that personality types are most pure in early adolescence and blend and soften as

individuals mature (2011). All digital characters are native English speakers. Each digital character is designed with a different personality and background story. The different personalities are also representative of the different classmates and people that the international students may encounter in their daily life. To lead and continue the conversation with different digital characters will require certain communication skills other than English language proficiency, such as explaining and clarifying themselves, strategies of asking questions, showing interest in others' speech, etc.

The study does not change about the general background stories and personality profiles of the five digital characters that are already developed by TeachLivE team. The personality profiles are listed as follows:

Sean has a dramatic personality. He is talkative, enthusiastic and curious about everything. He tends to over participate and he likes to seek others' approval. He is a Floridian native.

Ed is a diligent and detail-oriented student. He has great memorization skills and concrete logic. He is a peacemaker and a practical thinker. He also has strong sense of personal integrity. However, he may be inattentive or sleepy sometimes.

Kevin is the artistic one in the group. He is talkative and charming. He tends to seek peer approval. He is an out-of-box thinker but sometimes may not be so motivated in class.

CJ has excellent oral argument and logic skills. She is more likely to act out than to admit that she does not know something. She is dominant and is always looking for respect.

Maria is more independent comparing to her peers. She is introverted, reserved and skeptical. Besides, she is a high gifted student and excels in all subjects.

The added information to the five digital characters for this study design is their traveling abroad experience: CJ has been to English speaking countries such Canada and UK; Ed visited

some South American countries such as Mexico and Purto Rico; Maria once traveled with her parents to East Asia.

Figure 3: High school digital characters

Task and Data collection procedure

After the IRB was approved, the researcher contacted TeachLivE program to submit the designed scenario and go through an hour of interactor training to make sure the interactor protocol worked. The training session with the interactor was scheduled two weeks before the interaction session. Then the researcher contacted the administrative leader and instructors of the IEP to recruit the participants for the study. All the participants were given thorough explanations and explicit instructions on the research before signing up for the study.

The data collection procedure included four phases: pre-interaction interview of the participants, orientation to TeachLivE, interaction task, and post-interaction interview of the participants and the interactor.

The Pre-interaction interview was aimed to get more information and details about the participants' English proficiency other than their TOEFL/IELTS scores. The following aspects were asked by the researcher: the self-introduction about the participants, their experience studying at UCF, observations on living in the United States, and their opinions about cross-cultural challenges and rewards. The interviews are audio recorded. The pre-interaction interview protocol, which is designed by the researcher, is listed below:

Table 1: pre-interaction interview

Rationale	Question type	Rationale or considerations	Draft interview questions (before intervention)	Draft interview prompts
Getting less bias information	Open ended questions	Encourage the interviewees to talk more; Not to lead the interviewees to talk about only positive/negative experience	1. Can you tell me a little bit about yourself? 2. Do you like studying here at UCF? Why? 3. What do you like most about America or Florida? 4. Is this your first time living abroad? What do you think is the most challenging part of living in another country?	Your major, how long have you been here, what do you like to do after school… Can you give us an example?

The 10-min orientation is aimed to familiarize participants with the digital characters and make them comfortable communicating in the simulated classroom. The participants introduced themselves to the digital characters and began small talk with them to familiarize themselves with the different personalities of these simulated peers. The orientation were audio recorded and observation notes were taken.

The participants then had 10 minutes to prepare for the interactive task. The scenario happens in a classroom where a group of new students meet together and the participant would

act as a group leader for an ice-breaking discussion. The interaction task asked the participants to share some of their own experiences with the digital characters and learn from the experience and opinions of the digital characters. During the conversation with the digital characters, the participant would:

1) share his/her experience of living in America or studying at UCF;

2) find out whether any of the digital characters has ever been abroad;

3) discuss the main challenges of being abroad with the digital characters who have been abroad;

4) share his/her opinion about the cultural differences between America and his/her native county;

5) find out what each digital character thinks about his/her observations of American culture.

The interaction task last about 15 minutes. It was audio recorded and observation notes were taken.

The design of the task is based on SCT and scaffolding theories in language learning as well as on the findings of previous studies. The most important concept of SCT is ZPD. As explained before, ZPD is the distance between actual development level, where the learner can solve problems independently and the potential development level, which a learner could achieve with the help of others. An English learner at intermediate proficiency level is usually able to proceed with basic conversation in English, utter short and simple sentences, and make himself/herself understandable to others. This defines the EL's actual English language development level. However, most intermediate level English learners have problems in engaging into deep discussion, explaining more complicated situations and discussing delicate

topics. The most common challenges include difficulty in finding the right words, making grammatical mistakes in longer sentences or speech, and problems in organizing speech in logical order, etc (ACTFL, 2012). Therefore, the English learners need help to achieve efficient and fluent conversation as it is supposed to happen in the classroom, as defined as their potential development level. In this task, though the participant is assigned as the leader of the group discussion, the role of the digital characters are the help or guidance to the participant and lead them to achieve a more engaged, fluent and active conversation in a simulated classroom discussion.

In order to meet these general goals, the task is designed to achieve the maximum involvement of both participants and the digital characters and create space for discussion and more turn-takings. First, the topic is chosen to be a familiar one for all the international students, which is sharing their experience and talking about cultural differences. Also, the task provides chances for them to produce longer utterance rather than incomplete sentences or phrases that provide just enough to maintain basic conversations. For example, task one (share his/her experience of living in America or studying experience) and four (share his/her opinion about the cultural differences between America and his/her native county) encourage them to talk about their living abroad experience and share their opinions. The objectives of these tasks for the participants are to use correct words, tenses and sentence structures in a more fluent speech compared to their English proficiency level. Second, the task gives clear guidance for the participants to elicit others' opinions or ideas. For example, task two (find out whether any of the digital characters has ever been abroad) and three (discuss with the digital characters who have been abroad the main challenges of being abroad) ask them to find out the cross-cultural experiences and reflection from the digital characters, whose background information the

participants have no previous knowledge of. The objectives are to address each member of the group appropriately, to show interest and to others' talk and to distribute attention and chance for everyone to speak. Third, the task gives an opportunity for negotiation and debate for different opinions between the participants and the digital characters, which provides ground for more guidance in maintaining an efficient conversation. For example, task guidance five (find out what each digital character thinks about his/her observations on American culture) encourages the participants to exchange opinions with the digital characters. The objectives are to help participants to deal with different opinions appropriately and see if they can develop skills to comment on others' opinions, to state agreement or disagreement, and to negotiate and compromise when there are conflicts.

According to the findings of the studies in the previous chapter, there are two aspects of oral communication ability of English learners that can be promoted through peer interaction and CMC: the cognitive development on linguistic features and communicative competence in conversations. The human-in-the-loop simulation will provide help in both aspects. The guidance for cognitive development is mostly from corrective feedback, while the guidance for communicative competence is mainly from implicit emphasis on certain conversation prompts such as "how about you", "what if…" or "what else".

According to the task objectives and structure explained above, several principles on interactive simulation strategies will be pre-designed to help the participants conduct the group discussion:

1) Compliments and positive feedback on the strength of the participants in phonology, group leading skills, or any other aspects of language performance from different digital characters will be interspersed throughout the discussion.

2) The task is mainly a negotiation of meaning but the linguistic aspect will be closely monitored by the simulation interactor and instant corrective feedback, mainly recast, will be provided to the participants.

3) The digital characters will actively engage in the discussion and provide model sentences if the participants struggle to find the appropriate way to lead the discussion or ask the right questions; one or two of the digital characters will provide the assistance to complete the participants' sentences if they have difficulties in finding exact words during the conversation.

4) The digital characters will use different prompts to lead the conversation forward and give implicit emphasis on such skills

According to these principles, a detailed protocol is given to the interactor for different possible scenarios:

1) While a participant is talking about their own experience or sharing their opinions about cultural differences, the digital characters will never interrupt the participant unless he/she has difficult in organizing the sentences or finding right words. The interactor will recast (repeat what the participant said in a correct and more native-like way) the sentences in which the participant makes mistakes when he/she comes to a natural stop.

2) When the digital characters are asked about whether they have any experience visiting the foreign countries, one of the digital characters will answer the question promptly. Others should wait a little bit longer and see if the participant is able to develop the skills to encourage the answers from the other members of the group. If the participant continues to ask the first digital character about the challenges and experiences, it will

continue to share and see whether the participant will remember to hand the topic to other digital characters.

3) If the participant forgets to ask other members about their experience abroad, the interactor will politely remind him/her by asking "maybe you want to ask others before you go on" or "do you think anyone else in the group want to share their experience?"

4) The main challenges for CJ include accent, sometimes language (some Canadians speak French), word difference between British English and American English (flat/apartment, lift/elevator, queue/line, etc.), currency, etc. Ed, on the other hand, speaks Spanish but find the language learned by book is still very different from what he hears in real life. He also enjoys South American food. The main challenges for Ed include the way that people speak (sometimes too loud), the distance between strangers, sometimes embarrassed by unfamiliar people's enthusiasm because of his shyness, etc. The main challenges for Mary include food & drinks (usually no ice at Asian home for drinking water), huge language differences (have no clue and no context), feeling extremely alien to the environment, crowded public spaces, etc.

5) While sharing about their experiences abroad, the interactor will monitor the reaction of the participants, and always encourage him/her to speak out their opinion, such as mentioning "do you agree?", "do you understand what I mean?" or "what do you think" if they are not active enough to share their opinions.

6) The major goal for the participant asking about digital characters' observation about American culture is to elicit some debate. The digital characters will make some statement, such as "I think the core of American culture is self-reliance" or "I believe the most important part of American culture is diversity", and encourage the participant to

talk and see if he/she have different opinions. If the participant does not seem to have a different opinion, the digital characters may have very different opinions against each other and see what the participant will react. For example, Sean may say, "I believe one problem of American culture is that we eat too much", and CJ may disagree and say, "many restaurant menus have calories chart, and the teenage girls are all too skinny; American people are very careful about what they eat" etc.

Table 2: Task Design and Interactor's Protocol

Task description	Task objectives	What interactor does to help
share his/her experience of living in America or studying at UCF;	To give a short speech in a fluent way, using correct words, tense and sentence structures	While a participant is talking about their own experience or sharing their opinions about cultural differences, the digital characters will never interrupt the participant; if he/she has difficult in organizing the sentences or finding right words, interactor will help the participant with the right words, or recast (repeat what the participant said in a correct and more native-like way) the sentences in which the participant makes mistakes when he/she comes to a natural stop.
find out whether any of the digital characters has ever been abroad	To address each member appropriately, instead of asking general questions;	When the digital characters are asked about whether they have any experience visiting the foreign countries, one of the avatars will immediately respond, others should wait a little bit longer and see if the participant is able to develop the skills to encourage answers from the other members of the group.

If the participant continues to ask about the challenges and experiences, the avatar will share and see whether the participant will remember to hand the topic to other digital characters.

If the participant forgets to ask other members about their experience abroad, Sean will politely remind him/her. |
| discuss the main challenges of | To show interest and to others' talk and | Help the participant to give reaction to others' speech. |

73

Task description	Task objectives	What interactor does to help
being abroad with the digital characters who have been abroad	distribute attention and chance for everyone to speak	While sharing about their experiences abroad, the digital characters will monitor the reaction of the participants, and always encourage him/her to speak out their opinion, such as mentioning "do you agree?", "do you understand what I mean?" or "what do you think" if they are not active enough to share their opinions.
share his/her opinion about the cultural differences between America and his/her native county;	To state one's opinion using correct words, tense and sentence structures	Similar as task one.
find out what each digital character thinks about his/her observations on American culture.	To comment on others' opinions, to state agreement or disagreement, and to negotiate and compromise when there are conflicts	The major goal for the participant asking about digital characters' observation about American culture is to elicit some kind of debate. The digital characters will make some statement, such as "I think the core of American culture is self-reliance" or "I believe the most important part of American culture is diversity", and encourage the participant to talk and see if he/she have different opinions. If the participant does not seem to have a different opinion, the digital characters may have totally different opinions against each other and see what the participant will react. For example, Sean may say "I believe one problem of American culture is that we eat too much", and CJ may disagree and say, "many restaurant menus have calories chart, and the teenage girls are all too skinny; American people are very careful about what they eat" etc.

The post-interaction interview is designed to reveal the participants' perspective on their experience with the simulation. The following aspects were asked by the researcher: the general experience with the simulation, comparison of the experience with talking to real-life peers, and

whether any of the corrective feedback was noticed. Furthermore, the interviews were audio

recorded. The post-interaction interview protocol is listed below:

Table 3: post-interaction interview

Rationale	Question type	Rationale or considerations	Draft interview questions (After interaction)	Draft interview prompts
Getting less bias information	Open ended questions	Encourage the interviewees to talk more; Not to lead the interviewees to talk about only positive/negative experience	1. How do you feel about talking to the simulated avatars? 2. Do you remember your former experience talking to native speakers? 3. Can you describe the different feelings or experience about talking to avatars v.s. talking to real life native speakers? 4. Can you tell us which of the characters you would like to talk to most? 5. Will you like to participate more activities interacting with simulations like this in the future?	Are you nervous or quite relaxed? Have you ever seen anything similar? What impress you most during the conversation with the avatars? Why is this your favorite avatar? Can you give us an example?

A follow-up interview was also conducted with the interactor to get the opinions and reflections

from an insider's point of view. The interview questions and protocols with the interactor is

listed below:

Table 4: interactor's interview

Rationale	Question type	Rationale or considerations	Draft interview questions (before interaction)	Draft interview prompts
Getting less bias information	Open ended questions	Encourage the interviewee to talk more; Not to lead the interviewees to talk about only positive/negative experience	1. Can you tell me a little about yourself and your experience working with TeachLivE? 2. How will you describe your experience with the project that interacting with the ELs? 3. What do you think about the participants' language proficiency? 4. Which part do you feel is the most challenging or the most difficult to you? 5. What do you think is the most rewarding part to you in this project?	Can you understand them clearly? Is it hard to communicate with them? Is it hard to keep the conversation flow? Do you feel you may need to slow down and modify your language while communicating to the ELs? Do you feel it's difficult to keep the conversation within the task topics? What do you think about recast of grammar or pronunciation during the conversation?

Data analysis methods

In this study, the descriptive data was collected through observation notes of interaction session, recordings of interactive task, and the interviews from the participants and the interactors. The audio recordings of the interactive task and post-task interviews was transcribed for further data analysis. The transcription of the recordings was checked by at least one other

peer of the researcher and the results were sent out for the interviewees for member check. Also, all of the coding will be done by both the researcher and one peer separately to increase the internal validity. The theme and findings of the qualitative data analysis will be debriefed to another member to provide different point of view and avoid the presumed bias of the research conducted.

Conversational analysis was applied to a detailed analysis on 1) The communication patterns between the participants and the digital characters and 2) The social communicative skills that the participants use during the interaction. Three types of interactional organization were examined to identify patterns of interaction: turn-taking organization, sequence organization, and repair organization.

Turn-taking as an organized activity is one of the core ideas of CA. In conversation, the change in speaker recurs with minimal gap and minimal overlap. On a turn-by-turn bases, one can see which member of the conversation is addressed or in charge of the conversation. The speaker change in turn-taking can also show the organization of conversations, especially in conversations that involve more than two people. There are several ways in which speaker changes can be organized: the next speaker can be selected by the previous one, a speaker can self-select, or the present speaker can continue speaking. According to Sacks, Schegloff and Jefferson (1974), these three options are hierarchically organized: other-selection goes before self-selection, and self-selection goes before continuation.

Another core idea of CA is that of sequence organization. Sequence in conversation assumes that any utterance is produced in order to progress the conversation, especially just after a previous utterance. At the same time, any given utterance creates a context for its own "next utterance" (Have, 1999). The actions in sequences will be characterized, like questioning,

repetition, seeking for advice, etc., and be analyzed on how the speakers' packaging of actions provides for certain comprehension of the action being performed and the matters of conversation. The ways in which the actions are carried out also implicate certain identities, roles and relationships for their interactive parties.

When troubles or problems happen in a conversation, like mishearing or misunderstanding, repair in conversation will be initiated. A repair sequence starts with a "repairable". A repairable is an utterance that can be identified as the trouble source. The initiative can be taken by the speaker of the repairable, which is a "self-initiated repair", or others can take the initiative of a repairable, called "other-initiated repair". And the repair itself can be done by the original speaker as "self-repair" or by others as "other-repair". When another participant initiates repair, the repair is most often done in the next turn, by a next-turn repair initiator. It is very often done by means of short term such as "what?", which gives the original speaker the opportunity to self-repair the trouble source with a more clearly articulated repetition or a different expression. Alternatively, another speaker may also offer an utterance, showing clarification of the meaning or further affirmation of the meaning. The repair organization will also reflect the communicative skills of the interactive parities.

Thematic analysis (TA) was mainly used to analyze the post-interactive interview data in order to address to the second research question about the potential factors that influence the communication pattern in the conversation between adult ELs and TeachLivE digital characters. The transcription was read and re-read and the content that might be relevant to answering the research question will be labeled and coded. Then, the coding and collated data were examined to identify potential themes. The viability of each candidate theme will be reviewed. Finally, the themes will be checked and refined through a detailed analysis to give the ultimate definition of

each theme that answers the research questions. Again, all the transcripts will be processed by another peer researcher through the coding and analysis procedure for increasing internal validity and the results were sent out for member check. The themes of the two data analysts were compared for interrater reliability and only the categories agreed by both analysts would be reported.

CHAPTER FOUR DATA ANALYSIS AND RESULTS

The data analysis consists of two parts. The first part is the analysis of conversation data, which is the transcribed recordings of EL-digital character interaction, by using CA to find out the emerged categories of communication organization and features. This part first examines the turn-taking organization, sequence organization and repair organization in the conversation data, and then summarizes the common patterns that are constructed through different organizations during the conversation. This part of data analysis answers the first research question:

1. What are the most common communication patterns in conversations between adult ELs and TeachLivE digital characters?

The second part of the chapter is aimed to find out potential factors that influence the communication patterns in the process of EL-digital character interaction, through observation and TA of the interview data. The data were collected through interviews from all eight participants and one of the interactors. By comparing and summarizing the final results of the analysis of interview data, this part answers the second research question:

2. What factors influence communication patterns in conversations between adult ELs and TeachLivE digital characters?

General Description of the features of Conversation Data

The project is the first one exploring the interaction between TeachLivE simulation and ELs. Some general data and features of the conversation are listed in the table below:

Table 5: General Data for Interaction Part

Participants	One	Two	Three	Four	Five	Six	Seven	Eight	Average
Time (min)	22	14	12	15	10	14	13	12	14
Turns	72	60	37	48	27	47	50	47	47
Participant's Average words/turn	15.4	11.5	15.5	16.0	18.2	14.4	8.8	6.3	13.2
Digital characters' average words/turn	29.4	21.7	26.2	26.3	15.9	21.3	20.8	18.9	22.6

The average time of the interaction session of the eight participants is 14 minutes. During a typical conversation between digital characters and the participants, there are usually 40 to 60 turns. The average number of conversational turns is 47. The participants usually spoke less than the digital characters. The average length for the participants in each turn is 13.2 words, and the number for digital characters is 22.6 words. However, considering it was the conversation between one EL and five native speakers, the ratio confirmed the active participation of the ELs.

The interaction task for the participants include: sharing their own experience living and studying abroad, finding out whether the digital characters have been abroad and their opinions of cultural differences, and discussing their opinions on American culture. Most of the participants successfully covered all the topics. Participant one, two, six and seven took the role of group leader more actively. They introduced themselves and shared their experiences first and then started to ask questions about the digital characters' experiences and opinions. Before they moved to the next topic, they talked about their own opinions first and then asked about the digital characters. Participant three, four and five started with directly asking questions to the digital characters, or being asked by the digital characters about their international travelling

experiences. Participant eight had trouble in keeping track of all the tasks, but managed to ask the digital characters about their traveling experience, sharing his own opinion on cultural differences and asking them about the challenges of living abroad.

When the participants started the interaction task, usually it was Sean or CJ who first said hello, answered the questions or initiated questions. If the digital characters were asked about whether they had been living abroad, usually CJ or Ed would voluntarily answer the questions. One of the digital characters would remind the participant that Maria also had something to share if the participant skipped Maria in that part. The conversation usually started by sharing living/studying abroad experience and challenges, and then the participants and digital characters would start to discuss their opinions about cultural differences. Sometimes the digital characters and the participants would exchange their opinions about cultural differences while they were sharing their experience and challenges of living abroad. For the last part of the conversation, half of the participants needed to be reminded to share and discuss their opinions and observation about American culture.

From the overall conversation data, we can find out that: (1) the participants were able to finish the main task objectives with the help of the digital characters; (2) the participants were actively involved in the conversations; (3) the participants were expressive and assertive in the conversations. They expressed their opinions even when their opinions were different from the digital characters'. In the next part of this chapter, the CA approach will be applied to provide a detailed analysis about the organization of the conversations, which will exhibit how the participants were involved in the conversations and how different sequences of the conversations indicated the different communication patterns.

Analysis of Conversation Data

      Turn-taking organization. Sacks, Schegloff, and Jefferson (1974) noted that speakers speak mainly one at a time, that speaker change occurs smoothly, and that transitions occur from one turn to the next with very little gap. Crookes (1990) provided what he called a common definition of a turn as "one or more streams of speech bounded by speech of another, usually an interlocutor" (p. 185). On a turn-by-turn basis, one can see which member of the conversation is addressed or in charge of the conversation. The speaker change in turn-taking can also show the organization of conversations, especially in conversations that involve more than two people. There are several ways in which speaker changes can be organized: the next speaker can be selected by the previous one, a speaker can self-select, or the present speaker can continue speaking.

      The task asked the participants to share some of their own experiences and find out the living abroad experience of the digital characters. In most of the cases, the participant started with talking about themselves and then asked questions to digital characters. For example:

Excerpt 1

1 P1: OK:↑. Hello everyone! I will tell you my name one more time. My name is Norah↑. And I

2 am twenty four year- twenty, twenty four years old. And I am a student at…uh↓…[Institute

3 Name]↑. I'm studying English language now. And this is my first time to be {abrode}, far

4 away from family and friends, my {county}. An:d…after that, after English language, I am

5 planning to uh…um…to take my master degree in business administration. Am:…can you

6 guys like…share with me your experience living in America? Are <u>you</u> guys, all of you are

7 from America, or: you are from different countries?

8 Sean: Ah-no we are all from here I think. So-som-some of them have been abroad and {mayb}

9 some other places though.

10 P1: um=

11 CJ: =Yeah, I have been to Australia once.

12 P1: OK. Can you share with us a little bit of the…of experience that you had there?

13 CJ: In Australia?

14 P1: Yeah:↑!

15 CJ: Oh yeah sure it was super fun.

16 P1: Was super fun?

17 CJ: Um People were like super nice. An:d I got to see Kangaroo:s. I've never seen Kangaroos

18 before … I even try Kangaroo like I eat Kangaroo. It was good but it [freaked me out.]=

19 P1:   [(hh)]

20 CJ: =Kangaroos are so: cu::te. Right?

21 P1: Yeah, right. I agree with you. And [why did you-]

22 CJ: [And they're- uh↑]

23 P1: And why did you go to Australia?

24 CJ: Uh I just was there for like a summer: um…like a summer class.

In line 6, the participant (P1) asked a question to all of the digital characters, and Sean picked up

the conversation while CJ self-selected to answer the question. Then the participant continued

with the initial move in turn-takings by asking questions to CJ about more of her living abroad

experience in line 12 and line 23.

Sometimes the digital character would initiate questions after the participant shared their experience. However, after turns the participant would start the group discussion questions, as in the following sample excerpt:

Excerpt 2

1 P6: Hi everyone. Um I am going to talk about my…my experience of living in America or

2 studying at [Institute Name]↓. Uh at beginning it was not an easy experience because uh: I am

3 coming from really different uh culture↑. I'm from Saudi Arabia. And the…I uh: find some

4 difficulties here in the beginning- I was depending on my parents and my country but when I

5 come here I have to depend on myself. So I have to find- beginning an apartment for myself. I

6 keep uh: looking: for uh about a week↑, because uh I arrived here in August and all the

7 apartments are full. Uh:::…

8 Sean: Wow.

9 P6: Also uh::…I had to pay for everything for myself and::… uh (0.1) also the language I also

10 have difficulties in language because my language is very weak↑. But everything went good

11 at the end. Uh…

12 CJ: So you found an apartment?

13 P6: Yeah I found an apartment.

14 CJ: Do you like it?

15 P6: Yeah, it's very comfortable, and in uh in a safe place.

16 CJ: Good, good. (soft)

17 P6: Is any one of you have been study {abode}? (0.1) Or no?

18 Maria: I went to I went to Tokyo last year↑, and I would like to know have you ever been to

19 there?

20 P6: No. I wish. I love Japanese people. Really I love them. (h)

In this part, the participant still took charge of the conversation and task by cutting the small talk quickly and starting the task-related questions. The digital characters self-selected to answer the questions and kept the conversation going smoothly.

Usually the conversations happened between the participant and one digital character, and the turns would be passed to another digital character to discuss the related topic with the participant. However, in some cases, the participant might refer a question from former discussion to the whole group. At this time, this participant initiated question would elicit involvement of most digital characters, as it is shown in the following excerpt:

Excerpt 3

1 P2: =So basically you are not alone. But imagine if you want to travel to some, any country for

2 seeing… anything…can can you do that?

3 Ed: I think I will do it. Yeah I think I will be fine=.

4 P2: =Wow by yourself.=

5 Ed: =When I want to go to an area for…so yeah all by yourself.

6 P2: Wow. I can't do that. All of you? All the class can do that?

7 (0.3)

8 Sean: Well…

9 Kevin: (hhh)

10 P2: (hh)

11 CJ: (hh) I don't know↓, but I am guessing yeah↑? Just because I'll have fun to have an

12 adventure, go on your own, see the world:::. That's all super fun.

13 P2: What about you Kevin? I didn't hear from you.

14 Kevin: Oh man I haven't traveled very much. So I'm little I've got no idea. But I am assuming

15 it will be a little weird to be on your own

The participant was discussing the topic of traveling alone with Ed and she was surprised by

Ed's answer she brought the question to the rest of the class. Sean, Kevin and CJ all reacted to

the question. The participant also asked followed- up questions to Kevin. In this example, the

participant was not only the initiator of the conversation, but also enjoyed making all of the

group engaged into the discussion.

Besides digital characters' self-selection in answering the questions, the participant might

also initiate the conversation by selecting certain digital questions to answer the questions. In this

way, digital characters were chosen to answer the questions and the conversation took turns

between the participant and the selected digital character. The participant might continue to

initiate the next round of conversation by selecting another digital character. In some cases, the

digital character may help to transfer the question or topic to the next digital character, for

example:

Excerpt 4

1 P1: Aha, nice. And what about you, Sheen? Sheen or Sean?

2 Sean: My name is Sean. It's Sean. [I I I haven't been] now for anything like that. I mean I

3 travel but not not studying abroad↓=.

4 P1:   [Sorry, my bad.]

5 P1: Like touring?

6 Sean: =but Maria has…Maria has.

7 P1: Maria has? OK. OK Maria↑, um where did you…travel=?

8 Maria: =Uh I've been to Taiwan for a summer program too.

9 P1: For a summer- where?

10 Maria: Taiwan↑.

11 P1: Taiwan and how was the experience?

12 Maria: (hh) It was good but it was <u>very</u> different too=

13 P1: Yeah:.

In this example, the participant selected Sean to answer the question, and Sean suggested that Maria had the traveling experience, as it is shown in line 6. The participant then took the chance to ask Maria the task-related questions. In this case, the digital character helped to keep the conversation going in a more efficient way by asking questions to the character who has something to share. The notice-worthy point is though Sean transferred the topic to Maria, the participant still took the chance to initiate the turn by asking Maria questions, instead of Maria taking over the conversation and starting talking about her experience. Similarly, sometimes when the conversation was taking turns between the participant and one of the digital character, the already involved digital character might transfer the topic to another digital character to keep the conversation flowing smoothly, and this latter digital character might take over the turn immediately without being asked again, for example:

Excerpt 5

1 P8: You are in high school?

2 Kevin: Yeah I am in high school.

3 P8: Aha, and:… the what- do you visit another country?

4 Kevin: Oh I haven't but Ed has. Ed do you want to talk about it?

5 Ed: I went to I went South America a few months ago. I enjoyed it. But it was different you

6 know.

However, in some cases, the participant might maintain too strong control of the whole conversation, ignoring the digital character's intention to lead the topic to another character, as is shown in the following excerpt:

Excerpt 6

1 CJ: What do you think about Florida?=

2 P7: =Well, good so far. Where are you from?

3 CJ: Uh where am I from? I am from Winter Park. It's kind of near Orlando.

4 P7: Umm, good. Um::…

5 Ed: I went to Columbia last year. It's very exciting. I don't know. Uh uh I was wondering if

6 you want to ask me about where I have been. I don't know.

7 P7: Umm, uh…(0.1)

8 Ed: Like do you want to know anything about us? Like uh where we have been and stuff?

9 P7: Tell me Kevin. Have you been abroad?

10 Kevin: Oh I have not been like but Ed has. He has got best stories, you know. Like Ed, take

11 away.

12 P7: Umm.

13 Ed: Yes, I got to go to Columbia, and I thought it was very interesting because … they

14 have…

15 (0.2)

16 P7: Uh::…

17 Ed: I am sorry I thought you were reading. I don't know if you are listening about…I couldn't

18 see you.

19 P7: Yeah I have listen to. Kindy. (0.1) Cindy.

20 CJ: Ah CJ, so.

21 P7: What Cindy?

22 CJ: Cindy is my name but I go by CJ.

23 P7: O..K. um. Good. Uh: I want to ask::… all of you. Starting from Maria again↑. Um…

24 what's the challenging, what the most challenging thing you faced when you are abroad?

25 Maria: The most challenging thing I faced was that in Tokyo it's very crowded.

In this case we can see the participant is more interested in asking questions and initiating turns

than answering questions. He changed the topic quickly by asking CJ "where are you from"(line

2), which had no connection with the previous topic and caught CJ out of blue. Ed is the one who

tries to cutting off the small talk and bringing the task topic out by introducing the topic

voluntarily, as it is shown in line 5-8. However, the participant did not start to initiate the turn by

asking Ed his experience, instead, he was still controlling the conversation by directing the

question to Kevin, another digital character.

Once the participant and the digital characters were involved into deep discussion, the

connection between the participant and digital character would also be shown in the turn-taking

organization, for example:

Excerpt 7

1 P1: In my country we have diversity as well↑. But most of them from Asia. You know what I

2 mean↑ not from the European or from Africa but most of them from Asia we have diversity in

3 [my country…]

4 Sean: [Oh here is from everywhere…]=

5 P1: =Yeah here is from everywhere, yes.

6 Sean: Europe, yeah, Latin America=

7 P1: =Middle East, yeah, I agree with you, which is something nice. (0.2) Yeah, thank you

8 Sean. Maria:::. (hh)

9 Maria: Yeah↓

In this excerpt, the participant showed strong agreement to the digital character's comment, and

she even finished Sean's sentences and was very engaged into the discussion.

When the participant was not open enough to share their experience, the digital character

would become a more active part of the conversation by bringing up the questions to the

participant, for example:

Excerpt 8

1 P3: So have you been like…outside↑ United States?

2 CJ: I have kind of- I went to- I went to England, Canada, which is like really really really really

3 far off in Canada. And:: I really like it. You know, it's pretty, It's kind of like in England. And

4 I thought it's cool. Everybody got so polite you know. Have you ever been to Canada?

5 P3: Yeah, just once, it was like a vacation↑. So:: it's just {chort} time.

In this excerpt, the participant started without sharing anything about her living abroad

experience and started immediately into question. So after CJ self-selected to answer the

question, she also directed the question to talk about the participant experience, as shown in line

4. Sometimes, the participant would naturally direct the question back to the digital characters, as

it is described in the task to ask questions about the living abroad experience to the group

members, for example:

Excerpt 9

1 CJ: So what's up? What's going on?

2 P4: Nothing much. What about you?

3 CJ: Aren't we going to talk about travel? Or country stuff?

4 P4: Sure. What do you want to know? what you want to talk about exactly?

5 CJ: Well, where have you been? Where have you traveled?

6 P4: Oh I traveled a lot of places.

7 CJ: Oh like where?

8 P4: I've been to Malaysia:, been to um well…I've been to Thailand. I've been to…I can't quite

9 recall at the moment, (hh) for some reason.

10 CJ: Yeah, I hear you.

11 P4: How about you?

12 CJ: Yeah I I I have been out of United States and Canada. Um you know like here and

13 Canada. But um…I I found that there is kind of- like a lot of- even though we both speak

14 English in both countries, there are some there's a lot of differences which between:

15 American and Canada↑.=

Sometimes the participant did share a little of her experience first, but the digital character might

try to get more by acting as the conversation starter and encourage the participate to talk more,

for example:

Excerpt 10

1 P5: OK uh I am going to ask uh something about um:: my experience in the UCF↑ um::… so

2 far↑ um is… wonderful. I chat with uh: people from different country. Um: I learn uh some

3 words:↑ as in uh Portuguese, France, Arabic. Um well I improved my {Englis} a little↑ (hh).

4 Sean: Ah you improved your English↑. Well where are you from?

5 P5: I come from Venezuela↑. Spanish is my native language.

6 Sean: Cool. So I- your- uh how long have you been in Florida?

7 P5: Uh…I've been here for:: uh…seven months, more or less.

8 Sean: How how is it different? What's- what the big thing what are the big differences you've

9 noticed?

10 P5: Uh well um… is different: uh: my country the culture maybe the culture is the uh the

11 most {differenty} because uh there we meet with the family a lot↑ uh with my mom or my ol-

12 older uh brother: and sister. Here people live to to work. Every day at work at work at work

13 (hh), is is is different. Um people here like uh buy something, buy {arctical} little different go

14 to the restaurant. In my country, people usually meet um the {clooks}, some {clooks}?

15 Sean: Yeah the clubs, that's cool.

The participant started with her studying experience, which was more familiar to her and maybe she had used that introduction for couple of times and it was a short and safe self-introduction. However, Sean started to act as the conversation opener then by first asking a simple question like "how long have you been in Florida" (Line 6). Later he asked a more complicated question about the culture differences, as shown in line 8 and 9. The participant started to talk more and used the words she might not be very familiar with and comfortable to use. There are mistakes but the utterance is longer.

When the digital character's question could not bring out more discussion or narration from the participant, the digital character initiated new rounds of turns and encouraged questions from the participant, which pushed the conversation/task forward, as the following example shows:

Excerpt 11

1 Maria: Well there is something that is different from where you grew up that: maybe- you miss

2 compared to the you know.

3 P4: Um. That's a good question.

4 Maria: Or or or not. (hhh).

5 (0.6)

6 Maria: We love to answer your questions too.

7 P4: So: what do you think like about like the American culture?

8 Maria: Aha?

9 P4: What's your observation about American culture?

In this excerpt, Maria asked a question (line 1-2) that made the participant think for a long time

causing a long pause during the conversation (line 5). Instead of waiting for the participant to

work out an answer, Maria started the turns again to encourage the participant to ask questions,

which resumed the whole conversation because the participant asked a task-related question.

In some rare cases, the digital characters started a topic that a participant might not have

interest to discuss, or they thought it was off-topic, the conversation became more digital-

character-initiated, while the digital character became the active conversation starter and the

participant would more passively answer the questions without bringing out new topics or new

questions, as it is shown in the following excerpt:

Excerpt 12

1 CJ: =So you want to your major in? What do you want to be?

2 P6: Uh I will study medical physics.

3 (0.2)

4 CJ: Ah I am sorry what? I cannot quite hear you, what?

5 P6: Medical Physics.

6 CJ: Oh:: medical physics. Like you want to be a doctor?

7 P6: Not a doctor, but working with radiation, um: therapy like that.(hh)

8 CJ: Oh wow. So::…

9 P6: Treating people by radiation.

10 CJ: So like, not like like coming up with treatment. With actually like helping people with

12 things they already exist?

13 P6: Yeah yeah.

> **Sequence organization.** From a CA perspective, talk-in-interaction is constructed in sequences. The basic unit is the adjacency pairs (Schegloff & Sack, 1973). Adjacency pair sequences have four major features: (a) physically adjacent to each other; (b) produced by two different speakers; (c) constructed in terms of first and second pair parts; (4) constructed such that speaker 1's first pair part makes it conditionally relevant for speaker 2 to respond with an appropriate second pair part. The actions in sequences will be characterized, like questioning, repetition, seeking advice, etc., and be analyzed on how the speakers' packaging of actions provides for certain comprehension of the action being performed and the matters of conversation. The ways in which the actions are carried out also implicate certain identities, roles and relationships for their interactive parties.

> The simplest sequence is the question-answer (QA) sequence. It may occur when the participant was asking questions, or the digital character was asking questions. Here is the example of participant asking questions:

Excerpt 13

1 P5: Who are you have been uh abroad?

2 Maria: Uh I have.

3 P5: What is your experience?

4 Maria: I went to Tokyo um last year↑, and I thought it's beautiful, and they have a lot of

5 technology and faster internet. And it's very different way of doing things over there. It's a lot

6 more polite than here.

7 P5: And you like it?

8 Maria: Uh I do. I do like it. Uh I think it's interesting it's overwhelming. In Tokyo it is so over

9 crowded. There are people everywhere=.

This sequence is a simply QAQAQA (Q=question, A=answer) organization happening between

the participant and Maria, very straight and task related. The participant was asking about

whether the digital characters had been abroad and the details about their experience. Another

example showed the digital character became the one who asked the questions:

Excerpt 13

1 Sean: Where where is your favorite place you've ever gone to. Where where where of you like

2 visiting most?

3 P6: Uh::…I think:…Last year I've been to Turkey. Yeah I think it's the most favorite place for

4 me.

5 Sean: Wh- what do you like about it? I've never been to Turkey I have never been out of

6 United States.

7 P6: Oh the weather is good. It's beautiful there uh: um the city is is you know is combined with

8 history and modern↑, uh culture so. Also the food. They have the best food in the world. You

9 should go and try it.

10 Sean: What is what is your favorite food?

11 P6: Uh::… their ba- barbecues, like kababa and shishidawu. Also their dessert↑. It's it's really

12 good.

This excerpt has the basic organization of QAQAQA, but with comment after question 2 in line

5, so it is more strictly a QA(QC)AQA (C=comment). However, from the two example we can

see that the QA sequence reflects that the communication between the participant and digital

characters is very limited and stiff. It is more like an interview rather than discussion. There is no

connection between the two speakers in this example, just simply getting information. The power

of the speakers does not seem equal here because of the lack of confirmation and comment.

The simple QA sequence organization is, in fact, very rare in the conversation data. In

most of the cases, the parties that involved in the conversation will comment on each other's

answers. Among all the conversation between the participants and the digital characters, the most

frequently emerged sequence organization is the QAC sequence. The following example is a

typical QAC sequence, with the participant as the question initiator:

Excerpt 14

1 P2: Yeah you're right to that. Um:::, OK since you all of you uh native speakers and native

2 citizens uh do you like the multicultural going on in the US?

3 CJ: Yeah, I don't mind it. I mean, I think some people say we need to preserve: our American

4 culture, but I don't care. I think it's fine, whatever. Everybody can do what they want.

5 P2: So you are OK with the everything.

6 CJ: Yeah.

7 P2: Good. OK. Kevin?

8 Kevin: Oh no man no. I I I don't think there is such a thing about uh preserving the American

9 culture. I think that's a lie:, because American culture is mixed cultures↓.

10 P2: We are.

In this example, after CJ's and Kevin's answer, the participant took time to confirm answer with them, give comments and show her agreement, which is more like natural conversation in real life, and one speaker takes time to think and process the information given by the other. Most of the time the digital character would also use this kind of QAC strategy:

Excerpt 15

1 CJ: Yeah like so::. We kind of have that here. That's kind of you know people thought for a

2 long time with you know like the guy goes and has a job and woman stays at home you know

3 look after kids and stuff. Now things are just like changing. What do you think about that?

4 P4: I feel like the US progresses like faster than Kuwait.

5 CJ: Yeah. Yeah.

6 P4: Yeah I know that all traditions like die hard. But like- yeah it doesn't progresses like quick

7 as here.

8 Ed: So you like very traditional family structure:. You feel it's stronger 'cause I actually prefer

9 that that how it is at my house or a lot of people who feel that. What do you think?

10 P4: I don't like stick with tradition. I mean it's good to have like tradition like culture↑. It's

11 just- it's not necessary to stick to it.

12 CJ: Yeah right like- because- like you want- how are you different? I- you know I agree with

13 you. I think women should be able to do what they want and shouldn't have to- you know be

14 moms or… whatever like how how do you want to change things?

15 P4: Like in Kuwait, if woman passes like the ages of let's say 25 and no one proposes to her,

16 she is like- she probably has to think OK something wrong with her, like she has to get

17 married, you know. She'll [she'll=

18 CJ: [What?

19 P4: =exactly- feel bad about herself, yeah.

20 CJ: Wow.

In this excerpt, CJ and Ed took turns to ask the participants questions, and both gave comments

before they asked the next question. CJ showed her attention during the participant's answer by

saying "Yeah yeah" (Line 5) and also showed her surprise over the participant's answer (Line

18).

It is worth noticing that after Ed gave his comment and opinion about tradition in line 8-9,

the participant strongly expressed her opinion and disagreement. There are several occasions the

participant or the digital characters expressed disagreement/negative comments during the

conversation, for example:

Excerpt 16

1 Sean: Like it's no problem for you↑ or [like…because there are different people or what.

2 P8:   [No problem for the people, the people, there is no

3 problem.

4 Sean: Oh there is no problem.

5 P8: Talk with her again. No problem. But you should have subject. You don't talk with the girl

6 uh::… if you don't have any subject.

7 Sean: Oh man like so you- so you OK like talk to anybody about anything?

8 P8: Aha.

9 Sean: Yeah 'cause I I have some other girls too they said it's different. But you say it's not

10 true, you say like:…that's interesting. They say like- where they are from they are not really-

12 socialize↑ with guys but that's not your experience. Like where you are from they talk to

13 everybody in Saudi Arabia?

In the above QAC consequence excerpt, Sean asked follow-up questions to clarify the participant's answer and expressed strong disagreement to the participant's answer by stating that he heard a totally different story about Saudi Arabia. The disagreement/negative comment would usually bring out conflicts during the conversation, which will be discussed in the later section of this chapter.

This single-way QAC sequence, meaning only one side of the speakers asks questions and gives comments while the other side just answers the question, showed a more respectful way between the speakers and more engaged conversation for both parties of the speakers. However, it is still a kind of one-way questioning sequence, while one speaker is much more active and the other is comparatively passive. There is another frequently emerged QAC sequence, during which the question initiator would reverse, as shown in the following excerpt:

Excerpt 17

1 P3: Yeah OK. What I feel is like um um um I… OK I forget the word. So:::: OK, that's

2 interesting↑. What about you Ed?

3 Ed: Oh I got to be in Columbia about a year ago, and I I found a lot different peoples- it's- they

4 are so different over there you know with a- for example here you know it's hard to get public

5 transportation anywhere such as in Florida. But over there you've been easy to pop along with

6 the public transportation. They…you don't need to go to a bus stop for it. You can just stop on

7 the side the road.

8 P3: Oh.

9 Ed: And keep your arms out and they will take you on.

10 P3: (h) that's so comfortable.

11 Ed: Yeah it's it's really nice. Do you have a lot of public transportation where you are from?

12 P3: No: no. We just have cars↑. Yeah it's similar to Orlando.

13 (0.2)

14 Ed: It sounds like where you are from is a lot like Florida if you know what I am saying. (hh)

After the participant commented on another digital character's answer, she brought the question to Ed and gave commented on Ed's answer. Then instead of being asked for more questions, Ed continued the topic about public transportation by asking about the participant's experience. In this way, the conversation was going on a smoother way, while both parties wanted to hear from each other's experience or opinion. The power relationship is also more equal because both speakers took turns to be the question initiator.

Since this is mostly an experience/opinion sharing task, it is reasonable that the single-way QAC and reverse QAC became the most frequently used sequence. However, the reversed QA sequence would also reflect an equal and engaged discussion, as the following example shows:

Excerpt 18

1 P7: Uh well ah about studying outside, I came here on a scholarship to UCF. Right now I am

2 uh… English, at UCF ELI. After that I am gonna… I am going to study mechanical

3 engineering. What do you think of my major?

4 Sean: Oh wow mechanical engineering. What do you want to do with that? What kind of job

5 do you want?

6 P7: I want…uh::: I want to work as an engineer↑. I want to establish my own business↑. =

7 Sean: Wow

8 P7: =That's my dream, yeah. What do you think?

9 Sean: Ah that's pretty cool. Like what exactly do the mechanical engineers do? Like you work

10 on computers↑, you design things, or? What kind of stuff?

Not only this is a typical Q(AQ)(AQ) sequence in the conversation data, the questions are

interesting too because it shows that the participant might care and relate to the digital characters

enough to seek or give advice to them. Like here, the participant kept asking Sean's personal

opinion on his major and his future career plan. There is another example showing the participant

enjoyed explaining things to the digital characters:

Excerpt 19

1 P1: Um, but um is this a culture? This is like…it's not a culture. I think I think this is social

2 life. (0.1)   [Like people being fat]

3 CJ: umm [well I don't know]. It is like…

4 P1: (talk to herself) [is it a culture?]

5 CJ: [Is social life part] of culture? I don't know. What is culture? I have no

6 idea.

7 P1: (hhhhh) Culture is something like um from: I don't- I don't know how to describe it but

8 something like values or norms of of of a country, that [comes from past from years years

9 years ago…]

There are also other occasions when the participant and the digital characters were just involved

in a discussion/comment sequence. This sequence, like both speakers asking questions to each

other, is also a good example of the equal relationship between the speakers, as it is shown in the

following excerpt:

Excerpt 20

1 Ed: In the United States we keep personal space all the time but in Latin America I guess

2 Nicaragua not at all. They are like on top of you all the time. It's quite weird.

3 P2: (hhh) Yeah:: I noticed that. Here in US, uh lot of people like to be with {themself} and

4 they can travel alone they can eat alone, and: we don't have such thing in our country. We love

5 to be around people=

6 Ed: =They don't have that in Nicaragua either. People eat with other people all the time [as it is

7 important.]

8 P2: [Yeah yeah.] I think this huge different. Yeah I can't imagine myself travel by myself. I

9 came here with my friends Norah… from our country. Yeah.

10 Ed: I hear it's a good experience you should try travel on you own.

11 P2: I I don't think I'm capable to do it because I love people. I can't just sit by myself in my

12 room.

13 Ed: Oh yeah you are right but you won't be on your own. You'll meet a lot of people in the

14 travel. That's that's what my mother says. It's true that I have been I went there by myself. I

15 met a lot of different people, including the people we were doing in the class, so=.

    Repair organization. When troubles or problems happen in a conversation, like

mishearing or misunderstanding, repair in conversation will be initiated. A repair sequence starts

with a "repairable". A repairable is an utterance that can be identified as the trouble source. From

a CA perspective, all repairs are likely to be signaled by various markers of incipient repair

(pauses, silence, sound stretches, cut-offs, and phrases such as "you know" and "I mean"). There

are several aspects in repairs that should be examined in conversation analysis. First, who

initiates the repair. The initiative can be taken by the speaker of the repairable, which is a "self-

initiated repair", or others can take the initiative of a repairable, called "other-initiated repair".

And the repair itself can be done by the original speaker as "self-repair" or by others as "other-

repair". Second is the position of repairs. The first position repairs are placed within the same turn as the trouble source, in which self both initiates and completes the repair. The second position repairs are occurring in the turn that immediately follows a trouble source and are initiated by others through objects called next turn repair initiators (NIRI). When another participant initiates repair, the repair is most often done in the next turn, by a next-turn repair initiator. It is very often done by means of short term such as "what?", which gives the original speaker the opportunity to self-repair the trouble source with a more clearly articulated repetition or a different expression. The third position repairs occur in the third turn of a repair sequence, after Speaker 2 answers Speaker 1's question and Speaker 1 realizes the misunderstanding between them. The third aspect is whether the repair is successful or not.

Since the conversation data is from natural conversation, self-correction and disfluency are very common in every turn. Therefore, while studying the first position, self-repair organization, the focus is limited on three aspects: grammar, pronunciation and pause.

According to such restriction, there are seven self-repairs and most of them happened in the speech of the participants, which are the English learners in this situation. There are successful pronunciation repairs, for example, "So- I learn a <u>little</u> bit about Korean language and…it was uh…{<u>diffikelt</u>}↑…difficult challenge for me but interesting at the {seem} time"; and the unsuccessful pronunciation repairs, for example, "In my country, people usually meet um the {clooks}, some {clooks}?" Also, for the repair of grammar, there are also successful and unsuccessful repairs. For example, in the sentence "how do you like, do you like the differences in culture," the participant did a successful repair of grammar, and in the sentence "So yeah that's make a different. It's makes a different" the repair is unsuccessful.

The focus of conversation data analysis is on the interaction between English learners and the digital characters. When considering the amount of the data, such typical EL-related self-pairs did not emerge very often during the conversation, which indicates that the main attention of the participants was on the communication of meaning and information.

There are only two places of third position repair. The following is the first one:

Excerpt 21

1 Maria: Oh that's so nice because a lot of people don't have that experience, especially like if

2 you have a head cover.

3 P2: Really? They hate it here?

4 Maria: No, I don't know here, but in the United States, I know so many people are: protesting

5 you know…

6 P2: Yeah yeah. [And other say some…]

In this example, Maria is referring to merely number of people, not as a general phenomenon or typically mentioned one place. The clarification is successful because the participant showed understanding and agreement. Another example is the participant trying to clarify her statement to the digital characters:

Excerpt 22

1 P3: Yeah. Because um in Saudi Arabia you have to get some {fisa} and it's difficult to get it.

2 You have to get like some job or religion reason, you know, so.

3 Ed: Yeah I can hear you so you have to get a job: or like- you know like- if people I guess if

4 you don't fit into the religious reasons like people didn't like- do ever like people treat you

5 different that kind of reasons or….

6 P3: No no no no no no no no no no no. But it's like a for safety reasons. They don't allow to

7 everyone to get into Saudi Arabia. You have to:- yeah. But in Dubai it's more It's good for

8 vacation. And to see the culture…it's more urban you know. Yeah so.

9 Ed: So what would you say would be like.. the biggest difference between- like Dubai and

10 Orlando like- what do you like- just to like 'cause Dubai is a big city Orlando is a big city but

11 like what do you think the biggest difference in all you know?

The participant made the statement clearly in the repair organization, however, we are not sure

whether the digital character got the clarification because Ed started another topic by asking

about the participant's opinion about cultural differences.

The most frequent repairs, about thirty of them, are second position repair. The participant

or a digital character requested for repetition or clarification of certain questions or statements. In

most of the cases, the problems were solved quickly and successfully, for example, when the

participant initiated the repair:

Excerpt 23

1 Ed:　　　　　[but there were other things.

2 P1: Yes. (0.1) Do you…do you have what?

3 Ed: Wo…uh, there are other things though. Not really related to the language that was difficult.

4 P1: It's <u>OK</u>. Yeah you can you can share anything that you want. Like, like what, give- give us

5 an example.

After the participant initiated the repair (Line 2), Ed repeated his sentence with further

explanation, followed by the participant's confirmation. The conversation smoothly went on as

the participant encouraged Ed to continue the topic. The situation would be similar if a digital

character initiated the repair, as it is shown in the following example:

Excerpt 24

1 P3: So you are living here alone?

2 CJ: Am I what alone? Sorry living alone?

3 P3: Yeah.↑

4 CJ: Oh no no no I live with my family. I am not old enough yet=. (hhh)

5 P3: OK

In this example, CJ initiated the repair by rephrasing the question into a simple "yes/no" question, which made it was easier for the participant to follow up.

Excerpt 23 and Excerpt 24 are typical examples of the repair organization between the participant and the digital characters. Compared to the second position participant initiated repair, the second position digital character initiated repair are usually more voluntary and more concerned about the participant self-esteem, while the participant initiated repairs are more direct and simple. They usually requested with a simple "what?" "what's the question?" "Can you repeat…" or "Say it again." Here is another example of digital character imitated repair:

Excerpt 25

1 P1: (hh) OK interesting. Uh what about you…uh: (Kevin raised hand) yes=.

2 Kevin: =Kevin.

3 P1: Kevin (hh).

4 Kevin: Yeah man yeah. I've never yet done that so I've been here in the United States like-
5 boring but it's all right.

In this example, the participant could not remember the digital character Kevin's name. Kevin realized she was speaking to him, raised his hand and voluntarily reintroduced his name. The repair is successful and the participant affirmed his name. Then the conversation continued by Kevin quickly started to answer the previous questions.

In another example, the participant initiated the repair by asking "what was that?" and

Maria repeated in a slowdown speed and more completed sentence:

Excerpt 26

1 Maria: Is that because of the big city?

2 P2: What was that?

3 Maria: Is it because it's a big city?

4 P2: Maybe::.

When the digital character is the repair source, they may assure the participant that the

misunderstanding caused by not being able to hear clearly what was said is not because of the

participant's English proficiency, for example:

Excerpt 27

1 Sean: Oh I have actually never left America I would love: to. Where have you traveled to?

2 P3: (confused)

3 (0.2)

4 Sean: Ah ah I spoke with you hello:.

5 P3: I I I didn't understand. Could you repeat please?

6 Sean: Oh I can. I am sorry sometimes people can't understand me.

7 P3: (hhh) That's OK. It's my problem.

8 Sean: It's harder with the laughter (hhh). Uh I I have never traveled outside the United States↑.

9 P3: OK.

10 Sean: Uh:: but I would like to. Where have you been?

11 P3: OK. Um: I have been: a lot of countries like um Europe↑ like France:, Italy, Switzerland:,

12 also South Africa, and all of them in middle east you know like Dubai↑, Kuwait↑, Jordan↑.

13 Uh: also Canada. Uh: what else…And Mexico=.

This repair took more turns than common second position repair. The participant did not

understand Sean's question and it brought a long pause. Sean broke the silence by saying hello

again, and urged the participant to initiate the repair, and he apologized for talking unclearly. The

conversation continued then after Sean iterated his answer and question.

In very rare situation, the repair might take more turns to bring the conversation back on

track.

Excerpt 28

1 Sean: Wow. So do you have any of your degrees yet? Or still working on it, or, or what?

2 P8: What's mean?

3 Sean: Like did you get a bachelor's degree or: uh uh associate's degree or anything like that?

4 P8: I don't know what's mean your question. Sorry.

5 Sean: Oh I was asking in college↑ you get associate's degree or bachelor's degree or a

6 master's degree, it's what you study, after you complete your training, you get a degree. So do

7 you have a degree?

8 P8: {Bakloyer}, what's a {bakloyer}.

9 Sean: Excuse me I did not understand.

10 P8: You know {baknowledge}, no master.

11 Sean: Oh you don't have a bachelor's↑ or master's, oh I see I see.

In this excerpt, Sean explained his question after the participant initiated the repair. However, the

repair continued for another turn because the participant still could not understand the question.

In the next turn, he finally gave response but that caused the confusion from Sean. In the end, Sean closed the repair by showing understanding to avoid spending too much time on the detour from the conversation.

Another common trouble in natural conversation is silence (no one speaking)/speaking at the same time. Usually the repair method is one side breaks the silence, or one side steps down and hands over the right to speak. Here is an example of when a digital character cut in and interrupted the participant's speech, and participant stepped down and let the digital character finish the sentence:

Excerpt 29

1 P1: Hmm: OK. Thank you for sharing. OK Sean? [What about…

2 Sean: [I don't I don't know] 'cause I've never been

3 to the other places.

4 P1: mm:::, OK. What about <u>you</u> Maria?

This and the similar excerpts will be marked as "DCA", meaning the digital character is more active and aggressive in the conversation. Here is another example of the participant and the digital character speaking at the same time:

Excerpt 30

1 Maria: Yeah, there, there lot different. There were lot difference [over there…

2 P3:   [How about the food there?

3 Maria: Oh the food?

4 P3: Yeah.

5 Maria: Actually I like the food I really like.

Excerpts like this are marked as "PA" (Participant active/aggressive), because the participant is the one who interrupted the speech of a digital character and the digital character stopped and let the participant finish her sentence, and then answered her question.

There is a third situation when the two parties of the conversation speaking at the same time, that is, the first speaker has almost finished his/her speech, and the second speaker also assumes that the first speaker's speech is almost over, so the second speaker starts the turn and keeps going anyway, and the whole conversation is not significantly influenced, for example:

Excerpt 31

1 Ed: Yeah I understand that. Columbia is cool because they have they have buses everywhere,

2 and you don't even have to wait at a bus stop. You can just be alongside the road and they'll

3 stop for you, which is incredible 'cause you don't have to have your own car and here you have

4 to travel [with it everywhere.

5 P6:   [OK. Yeah there is no transportation here. I think because because of the roads, it's

6 everywhere so.

7 Ed: We have our own bus system but it's not very good. It's not very good.

8 This kind of situation is marked as "BA", meaning both parties are actively involved and the

9 conversation goes on without either side stopping.

Table 6 illustrates the numbers of each situation when the speakers in the conversation talking at the same time:

Table 6: Repairs of Speaking at the Same Time

DCA	PA	BA	Total
7	18	10	35

There were only a few occasions when none of the speakers were talking and the conversation was interrupted by silence. In this situation, the conversation resumed when either of the speakers broke the silence. Again, one party will act first when silence happens. The repair can also be self-initiated or other initiated. Here is an example of self-initiated silence repair:

Excerpt 32

1 P2: Yeah Yeah. That's that's great, actually. Um:::…so:::…. (0.4) Do you have any

2 challenging? Do you have any challenge during that period when you study alone?=

3 Ed: =Oh I did, I did because I speak Spanish but it was very different once I was there, like the

4 slangs, what people said, it's just super different.

And the other initiated silence repair:

Excerpt 33

1 Ed: Oh I don't necessary agree with that. I think the most important thing is we are safe, and

2 someone you know use the cut so we can have a strong military than it's important that we say

3 multiple progresses, it is more important than our personal liberties.

4 (0.4)

5 Sean: I I really don't agree with that Ed. What what do you think?

In this example, after Ed's statement, the participant should have taken the turn and given the comments, but she didn't, which brought about a long pause. Therefore, Sean, another digital character initiated the turn with a question.

Table 7 displays the number of instances when the participant or the digital character actively repaired the silence, with the participants breaking the silence marked as PI (participant

initiated), and the digital characters breaking the silence marked as DCI (digital character

initiated):

Table 7: Silence Breaking Times

PI	DCI	Total
4	6	10

Several features of the conversation between the participants and the digital characters are

indicated in Table 6 and Table 7. First, the number of occasions when two speakers talking at the

same time are much more than the occasions when no one talks, which means, both parties were

more willing than reluctant to talk. Secondly, when conflicts of right to speech happen, the

participants are more active and keep talking and in most cases the digital characters are more

willing to step back. This is an interesting phenomenon because the previous literature shows

that usually in a NS-NNS communication, NNS are more passive in the conversation. Finally,

when silence happens, in most of the cases, the digital character was the one to act and avoid the

break and awkwardness of the conversation, which is helpful to maintain a fluent and positive

tempo of the communication.

Communication strategies and language development. Heritage (1987) pointed out that

"the central objective of conversation analysis is to uncover the social competences which

underlie social interaction" (p. 258). The above analysis of the conversation organization in the

interaction between the English learners and the digital characters demonstrated different

communication strategies, and this section of chapter will emphasize and summarize the

communication strategies applied by the English learners, namely, the participants.

Faerch and Kasper (1983) suggested communicative strategies as a psychological process, and categorized the communicative strategies into two main aspects: achievement communicative strategies and reduction communicative strategies. According to Faerch and Kasper, achievement communicative strategies involve hypothesis and the communicator's practical statement, and they can promote language acquisition. On the other hand, when using reduction communicative strategies, the original purpose is changed and it may result in less language acquisition.

Achievement. One of the main achievement strategies is cooperative communication, which happens when the individual decides to resort to telling his interlocutor that he is experiencing a communicative problem and that he needs help. As discussed before, most of the second position, participant initiated repairs are in fact a kind of achievement and compensation strategy, meaning the participant was trying to clarify the communication content from the digital characters, for example:

Excerpt 34

1 Sean: I I really don't agree with that Ed. What what do you think?

2 (0.6)

3 P4: What?

4 Sean: What do you think- what what do you feel is more important?

5 P4: Uh can you say what you said again?

6 Sean: Uh: Ed would say that uh have personal freedoms- but not as important as uh: like the

7 government watching everything we do, because he thinks that it's OK not to have any

8 freedoms 'cause it keeps us safer.

9 P4: Well I think that the freedom is important.=

In this excerpt, there was a long pause during the conversation and the participant asked "what" to break the silence. Later she tried to confirm the content of Sean's question by asking him to repeat the content. The digital character helped her and solved the communication problem by explaining the whole conflict in detail.

Reduction/Avoidance. Sometimes the participant may also resort to less active ways to solve the communication problems, for example:

Excerpt 35

1 Maria: Yeah so I am like- oops sorry. Here in America you you you can pay four or five

2 dollars for a plate or tray. But there they cut them into special shape and be really expensive

3 you know.

4 P3: Yeah OK. What I feel is like um um um I… OK I forget the word. So:::: OK, that's

5 interesting↑. What about you Ed?

In this example, the participant had difficulty finding the words, instead of using interlanguage based strategies and asking the digital characters for help, she chose to conclude the subject quickly and move to the next topic. In fact, avoidance and deduction happened more frequently than achievement and compensation during the conversation when the participants had difficulties in language expression. It seems that though the digital characters are native speakers, the participants still regard them as equals in terms of their English proficiency.

Since the topics in the task included discussion of personal opinions, conflicts were likely to happen when the speakers have different points of view regarding a certain topic. In this situation, the participants often attempted to compromise with the other side, rather than escalate the conflicts, which is a kind of positive strategy for keeping the conversation going. Here is a typical example:

Excerpt 36

1 CJ: [Is social life part] of culture? I don't know. What is culture? I have no

2 idea.

3 P1: (hhhhh) Culture is something like um from: I don't- I don't know how to describe it but

4 something like values or norms of of of a country, that [comes from past from years years

5 years ago…]

6 CJ: [So we value: sugar: and we value: fat:

7 and so we get fat]

 8 P1: (hhhh)

9 CJ: That's what we value.

10 P1: OK OK. I understand I respect your opinion. (hhhhh) Thank you for sharing CJ.

11 CJ: Sure:::.

In this situation, CJ was a little bit pushy and insisted her opinion, and the participant closed the

argument by saying "I respect your opinion" (Line).

   Complements and confirmation. Making complements and confirmation is an effective

communication strategy to keep a fluent conversation. During the conversation between the

participants and digital characters, we can find that the participants showed more confirmation

and reaction to the digital characters' statement than vice versa, as it is shown in the following

example:

Excerpt 37

1 P1: um, Yeah right. I agree with you. Thank you so much Maria. Kevin?

2 Kevin: Oh men yeah. I think um I like I like diversity that's like totally cool whatever. But as

3 you see the problem is most people don't like it. You know what I'm saying? Right now: we

4 got president don't like diversity and stuff=

5 P1: Um↑

6 Kevin: =and we don't like other people like once everybody to be the same. but that's

7 <u>impossible</u> 'cause it's like Maria said there is really not there is no such thing as being

8 America. It doesn't make any sense=.

9 P1: Yes.

10 Kevin: =You what I'm saying? 'cause like all of us we Americans like it doesn't matter. You

11 don't have to look the same, you don't have to act the same=.

12 P1: Um.

13 Kevin: =right? So I don't say those people are crazy you know what I'm saying?

14 P1: (hh) Yeah Right. Thank you guys. Um I like all your answers. Um OK uh:::… I'll tell

15 you my opinion about American culture specifically. For American culture. I like the

16 American culture. I don't have any um like um I don't have any objections or any uh

17 anythings {againist} the American culture. I like it. But some of the some parts of the

18 American culture is weird for me since I use um I'm not used to it. Um: like when you guys

19 um like for example when you- when some of you it's OK for them to: um: to live far away

20 from their family or when they uh reach a certain age they have to move out↑. This I don't I'm

21 I'm not going to say I like it or I don't like it but I think it's weird↑ since I grow up in, in a

22 country have a different culture. Uh:: but I like- what I like in American culture that people

23 are free to talk about uh their thoughts and their opinions and speak up their minds, which is

24 {some'<u>thing</u>} good. And…can you guys tell me what you like about the American culture or

25 what do you dislike about the American culture specifically. Let's start with Maria first. Go

26 ahead Maria.

In this excerpt, both the participant and the digital character were giving a long statement and deep discussion. The lengths of their statements are quite similar. While the participant kept nodding her head and showed her understanding frequently, the digital character did not make any interruptive noise and just let the participant finish whatever she wanted to say.

Besides the above findings, the study also discovered the English learners' attention to implicit correct in pronunciation or grammatical form during the conversation in this virtual, natural conversation environment. The recast in pronunciation and grammar happened in the conversation but not frequently. The communication was still more focused on meaning and information exchanging. For example, the following excerpts illustrate the recast in pronunciation and grammar, but we are not able to find the confirmation of language development because the participant didn't repeat the problematic part again.

Excerpt 38

1 P5: Uh well um… is different: uh: my country the culture maybe the culture is the uh the most

2 {differenty} because uh there we meet with the family a lot↑ uh with my mom or my ol- older

3 uh brother: and sister. Here people live to to work. Every day at work at work at work (hh), is

4 is is different. Um people here like uh buy something, buy {arctical} little different go to the

5 restaurant. In my country, people usually meet um the {clooks}, some {clooks}?

6 Sean: Yeah the clubs, that's cool.

And another example of sentence recast:

Excerpt 39

1 P8: Do you find another language? Second language?

2 Ed: Oh I am sorry I cannot hear you. I think it's because your hand is covering your mouth.

3 P8: I say do you have: uh another language?

4 Ed: Oh do I speak another language?

5 P8: yes.

However, a couple of examples showed that explicit correction may work better in this situation.

For example, the digital characters might correct the participants' pronunciation of their names:

Excerpt 40

1 P1: Right↓, you are right:. I <u>agree</u> with you. OK↑…ED?

2 Ed: Yes, (0.2) it's Ed.

3 P1: Tell me about the challenges that you: faced in the past.

4 Actually the participant did not realize she pronounced the name incorrectly at first, and in a

5 later turn, the digital character had to correct it again.

6 Excerpt 39

7 P1: Um, you don't know. Yeah sure. OK, uh…ED, what about you? Do you like the culture:

8 differences in here in the U.S.?

9 Ed: It's Ed.

10 P1: Ed, OK (hhhh) sorry guys I'm bad at names. OK.

11 Ed: It's all right. So. Well here is one thing that I…I guess I like many things here I like the

12 personal space=.

Here the participant confirmed the correct pronunciation of Ed's name and apologized for

making mistakes. Later when she called Ed again, she stressed the name and chuckled.

Another example is between the participant and CJ:

Excerpt 41

1 P7: Yeah I have listen to. Kindy. (0.1) Cindy.

2 CJ: Ah CJ, so.

3 P7: What Cindy?

4 CJ: Cindy is my name but I go by CJ.

5 P7: O..K. um. Good. Uh: I want to ask::… all of you. Starting from Maria again↑. Um…

6 what's the challenging, what the most challenging thing you faced when you are abroad?

In this excerpt, the participant also required a second and more explicit correction, and later he

pronounced CJ's name without any problem.

However, when the digital characters were discussing language problems, the participant

could be intrigued to repeat and try to learn certain words or phrases. The language development

could be possible to achieve for the participant as it is shown in the following example:

Excerpt 42

1 CJ: And they also used weird words. Like they say reckon a lot=.

2 P1: Reckon. (hh)

3 CJ: =What do you reckon? And I am like I don't know what that mean. Like I didn't know.

4 I've never heard anyone used that word↑. But then I like I asked my mom she said that it's a

5 word↑ we use here but we just don't use it that much=.

6 P1: (hhhhhhhh) ahha.

7 CJ: =But what do you reckon, we can say that. And they say…things↑ like…they they make

8 words um smaller than they are. So instead of saying you want a cup of tea they say you want a

9 cuppa↑=

10 P1: You want a cuppa, um.

11 CJ: =And I was like what? Cuppa? What's a Cuppa? Like I am so confused right now=

Communication patterns. As stated in Chapter 2, according to the quality and

relationship of conversation, peer communication may include patterns of different features.

According to Storch (2002), basically four different communication patterns emerge from the

interaction between peers: (a) Collaborative. The collaborative pattern represents moderate to

high levels of equality and mutuality. In this pattern, all participants contribute to the interaction

and engage with each other's utterances so that there is a perceived level of discussion and

cooperativeness. (b) Dominant/Dominant. In the dominant/dominant pattern, participants

contribute to achieving the goals of the task, but they pay only limited focus to the contributions

of the others. Though all participants contribute to the task, they appear to compete for control of

the task. (c) Expert/novice. The expert/novice pattern represents moderate to low equality but

moderate to high mutuality. Like the dominant/passive pattern, in this pattern one participant

contributes more than the other. However, unlike the dominant/passive pattern, in the

expert/novice pattern, the more dominant participant (the expert) encourages and invites

contributions from the other participant. (d) Dominant/Passive. The dominant/passive pattern

represents medium to low equality and mutuality. In this pattern of interaction, one participant

takes control of the task, while the other participant plays a more passive role. From the point of

view of conversation analysis, a collaborative pattern should have both parties in the

conversation initiate turns, and show their involvement by giving comments, confirming

understanding, and willing to repair the problems in conversation with multiple communication

strategies.

The following excerpt shows an example of collaborative pattern of communication:

Excerpt 43

1 P1: OK thank you Ed. Um, Sean, you <u>have</u> to answer this question. (hh) OK. Do you like

2 cultural differences here in America the diversity?

3 Sean: Yeah I like um I think they are very important and they offer lots of different things

4 to:::… the world and to America. So I think they are very important. I like them a lot=.

5 P1: Nice!

6 Sean: =I don't really know how it is in other countries, but I hear that in the United States it's

7 very different.

8 P1: In my country we have diversity as well↑. But most of them from Asia. You know what I

9 mean↑ not from the European or from Africa but most of them from Asia we have diversity in

10 [my country…]

11 Sean: [Oh here is from everywhere…]=

12 P1: =Yeah here is from everywhere, yes.

13 Sean: Europe, yeah, Latin America=

14 P1: =Middle East, yeah, I agree with you, which is something nice. (0.2) Yeah, thank you

15 Sean.

In this example, the digital character and the participant contributed jointly to the composition and engage with each other's contribution. Though the participant was the turn initiator at the beginning, the digital characters offered answers (Line 3-4) and expanded the answers too (Line 6-7) after the participant gave positive feedback in the form of confirmations (Line 5). The expansion of his answer encouraged the participant to share her story. The conversation is coherent as the participant and the digital character incorporated or repeated each other's utterances and extended on them, or they simply completed each other's utterances (Line 9-13). Thus, the talk shows a pattern of interaction that is high on equality and mutuality.

Here is another example of collaborative patterns. In this excerpt, CJ and the participant took turns initiating questions (e.g. Line 1, 7), showed positive and confirmative feedback (Line 6), and showed interest and engagement by asking follow-up questions (Line 13).

Excerpt 44

1 CJ: Well, where have you been? Where have you traveled?

2 P4: Oh I traveled a lot of places.

3 CJ: Oh like where?

4 P4: I've been to Malaysia:, been to um well…I've been to Thailand. I've been to…I can't quite

5 recall at the moment, (hh) for some reason.

6 CJ: Yeah, I hear you.

7 P4: How about you?

8 CJ: Yeah I I I have been out of United States and Canada. Um you know like here and Canada.

9 But um…I I found that there is kind of- like a lot of- even though we both speak English in

10 both countries, there are some there's a lot of differences which between: American and

11 Canada↑.=

12 P4:   [like culture?

13 CJ: =[yeah it takes] some time to get use to right?

14 P4: Like cultural differences?

15 CJ: Yeah, and like one of the big surprises to me is that Canadians are so <u>relaxed</u>. They are

16 like they leave their doors open and stuff. I just I couldn't get use to that because- like

17 American you won't feel safe right?

18 P4: Yeah.

19 CJ: So:: so like when you travel to Thailand, (0.1) how…did you find there are a lot of

20 difference from where you grew up and what you're use to?

21 P4: I can't recall because I was like I was a little kid back then, so really didn't pay attention

22 to- like cultural differences.

The conversation analysis provides more details in communication than just reflecting equality and mutuality. For example, in a typical QAQAQA sequence or QACQAC sequence, the speakers may contribute equal utterances in the conversation, and the mutuality is also favorable because the speakers cooperatively answer the questions, and there is no refusal to answer the question, or obvious detour from the conversation. However, as analyzed before, such conversation organization still reflects a certain unequal power relationship in a conversation, because one side is always the turn initiator and the other side may cooperatively, but still passively just answer the question without giving comments or initiate new turns, topics or questions. Such a pattern can be named as the cooperative pattern. The cooperative pattern could happen when the participant takes the more active role, who is the turn initiator most of the times, for example:

Excerpt 45

1 P1: And why did you go to Australia?

2 CJ: Uh I just was there for like a summer: um…like a summer class.

3 P1: Aha, I understand, OK. And what about the others?

4 (0.1)

5 Ed: Well…I went to Nicaragua to do a…like a…like a semester abroad.

6 P1: Aha↑, that's cool=.

7 Ed: Emha.

8 P1: =And how was the experience? Did you enjoy it?

9 Ed: Um yeah I did. It was: very different though.

10 P1: Aha, nice. And what about you, Sheen? Sheen or Sean?

11 Sean: My name is Sean. It's Sean. [I I I haven't been] now for anything like that. I mean I

12 travel but not not studying abroad↓=.

However, in most of the cooperative pattern cases, the digital characters take the active role,

initiating questions and topics and encouraging the participants to speak, for example:

Excerpt 46

1 Ed: So what would you say would be like.. the biggest difference between- like Dubai and

2 Orlando like- what do you like- just to like 'cause Dubai is a big city Orlando is a big city but

3 like what do you think the biggest difference in all you know?

4 P3: Uh I feel like Dubai everything in Dubai is fake↑. You know the :, the beaches: everything

5 is they made it, but in Orlando everything is real↑, and natural↑. And…

6 Ed: Oh it's funny that you say that 'cause a lot of people say that about Disney you know.

7 P3: Yeah I know.

8 Ed: It is really big.

9 P3: Yeah but everything like except↑ Disney. It's real.

10 Ed: Yeah I I hear I hear you.

11 Sean: I heard Dubai has a a lot of theme parks and: hotels stuff like that. It's kind of like old

12 Disney land in a way.

14 P3: Yeah. Actually Dubai is kind of {lukcery} city country if you love to be in a {lukcery}

15 city vacation, like {lukcery} city hotels, malls you know the shopping and stuff. You're going

16 to enjoy it. If you are not↑, if you are kind of uh if you love like na…natural things and: you

17 know yeah it's not good for you.

18 Sean: So it sounds like aww::there isn't like a lot of environment out there maybe? It's just

19 buildings and stuff?

10 P3: Yeah. Yeah it is.

The digital characters were given protocols to act cooperatively, therefore it is within the

expectation that the communication should occur in a more collaborative way than real-life,

natural conversation. However, in very rare occasions, the conversation may demonstrate the

features of a dominate/dominate pattern for some communication problems, as it is shown in the

following example:

Excerpt 47

1 Ed: Like do you want to know anything about us? Like uh where we have been and stuff?

2 P7: Tell me Kevin. Have you been abroad?

3 Kevin: Oh I have not been like but Ed has. He has got best stories, you know. Like Ed, take

4 away.

5 P7: Umm.

6 Ed: Yes, I got to go to Columbia, and I thought it was very interesting because … they have…

7 (0.2)

8 P7: Uh::…

9 Ed: I am sorry I thought you were reading. I don't know if you are listening about…I couldn't

10 see you.

11 P7: Yeah I have listen to. Kindy. (0.1) Cindy.

12 CJ: Ah CJ, so.

13 P7: What Cindy?

14 CJ: Cindy is my name but I go by CJ.

15 P7: O..K. um. Good. Uh: I want to ask::… all of you. Starting from Maria again↑. Um…

16 what's the challenging, what the most challenging thing you faced when you are abroad?

In this example, both the participant and the digital characters contributed, but it is not a joint construction. There are few requests or collaborative completions in this pair talk. Both parties in this conversation were turn initiators. The digital characters tried to initiate the conversation and help to direct the conversation to a task-related topic. However, the participant either ignored the digital character's question, or changed the people that he addressed quickly and unexpectedly, without finishing his previous turns or response. For example, Ed initiated the turn by proposing discussing a task related topic (Line 1). However, the participant did not respond to Ed's suggestion, instead he asked a question to Kevin (Line 2). After Kevin passed the topic to Ed, Ed tried to initiate another turn (Line 6) but was interrupted by his assumption that the participant was not paying attention, and then the participant did not let Ed resume his speech but started to initiate another turn with CJ (Line 11). The discontinuity of the conversation was hard to repair. This example of dominate/dominate pattern shows that even with the protocol of interaction, there may still be extreme situation that beyond the digital characters' ability to repair.

The other typical example of dominate/dominate pattern happened when the participant and the digital character had different opinions over some issue but no one seems to seek compromise:

Excerpt 48

1 P8: OK. How about your opinion and different between American and Saudi Arabia?.

2 Sean: Uh I have never been to Saudi Arabia. I don't know a bit about Saudi Arabia. I like

3 uh::…do what do you notice was different, uh what do you think it was different or the same?

4 P8: Nothing is different. All: same.

5 Sean: There is nothing different, all the same?

6 P8: Yeah. Everything same.

7 Sean: I am confused.

8 P8: (hh) No, really↑. Everything is same, similar.

9 Sean: Oh man so everything is same in Saudi Arabia as it is here?

10 P8: Yeah.

11 Sean: Oh man like your friend who is here before. She said they were a lot different.

The digital character and the participant equally contributed to the conversation, but the mutuality was low. The participant insisted that Saudi Arabia and America are the same, but Sean was very surprised and obviously did not believe him. However, a very interesting thing is, even the digital character showed strong suspicion and disagreement to the participant's answer, he seized the opportunity to recast and complete the sentences of the participant, which is a positive scaffolding strategy in language learning.

Another important and interesting finding is that through all the conversation data between the participants and the digital characters, both parties equally contributed in the conversations, either collaboratively, cooperatively, or in a dominate/dominate pattern. Sometimes the participant or the digital character might have a longer statement over some topic, but it usually was followed by long comments from the other side. Therefore, there is no expert/apprentice or dominate/passive pattern in the conversations. Generally, to answer the first research question, the conversation analysis reveals that the most common patterns in the conversations between the adult ELs and their digital characters are collaborative patterns and cooperative patterns.

Factors Influencing the Communication Patterns

The above analysis demonstrates that there are three communication patterns emerging from the conversation between the English learners and the digital characters, namely the collaborative pattern, the cooperative pattern and the dominate/dominate pattern. The participants and the digital characters usually equally contributed to the content of conversation. One can find the participants were very actively involved in the interaction especially from the analyze of repair organizations. This part of the chapter will explore the factors that influence the communication patterns between the participants and the digital characters from the observation, interview of the participants and interview of the interactors. The data coding process was under peer examination and the results and categories were emailed to the interviewees for member checking.

From the Observation of the Participants. The result of the previous studies on interaction between NS and NNS showed that the non-native speakers' participation in oral peer response was more limited than their native speaker peers, and they tended to take fewer turns to talk and performed a largely "responding" function during oral discussions (Zhu, 2001; Shi; 1998). However, in this study, the English learners were obviously more engaged and made equal contribution in the conversation as the native speakers. One of the reasons for this result pertains to the interactor's protocol. The previous studies also showed that trained peers would engage in more effective peer interaction (Zhu, 1995; Sato & Lyster 2012). In this study, the interactors behind the digital characters are well trained professionals to provide guidance in conversations of educational settings. Moreover, in the training session for this study, the researcher offered a specific protocol and instruction about how to make the participants more active in the conversation. Not all the participants are out-going and like to talk at the very

beginning. However, from the observation of the data, we can see that the protocol and training

did help the participants engage more in the communication. For example:

Excerpt 47

1 CJ: Yeah, and like one of the big surprises to me is that Canadians are so <u>relaxed</u>. They are like

2 they leave their doors open and stuff. I just I couldn't get use to that because- like American

3 you won't feel safe right?

4 P4: Yeah.

5 CJ: So:: so like when you travel to Thailand, (0.1) how…did you find there are a lot of

6 difference from where you grew up and what you're use to?

7 P4: I can't recall because I was like I was a little kid back then, so really didn't pay attention

8 to- like cultural differences.

9 CJ: So:::… when you got- when you grew up, what do you think like the biggest, the biggest-

10 uh the most different place that you went to from what you are used to. What was that like

11 where was that?

12 P4: Actually the States, like here=

13 CJ: Aha.↑

14 P4: =is quite different from back home, but, um: like in: my country, they stick to traditions

15 like traditions is something that very very you can't change that.

16 CJ: Yeah like what kind of traditions.↓

17 P4: For instance, like, um, in our country like patriarchy exists.

18 CJ: Yeah.:

19 P4: Yeah and it's like a big part of like like culture. So like the father is like man of the house

20 or if the father dies- like the eldest son or even the son it doesn't matter how old he is. He's

21 like the man of the house. You take supposedly takes care of house. And I just like that. And

22 it's far different here.

Just before this excerpt, the participant was in fact quite passive and defensive. CJ then invited

confirmation and comments at the end of her response by asking "right?" (Line 3) The

participant simply answered "Yeah" (Line 4), which brought nothing new to keep the

conversation going. However, instead of continuing her story of living abroad experience. CJ

encouraged the participant to talk about her previous experience in Thailand, but the participant

still seemed a little bit reluctant to talk because she said she did not remember much. Then CJ

initiated another question talking about where she remembered as the most different place, and

then the participant started to talk more.

     The participants' perspective. All the participants completed a post-task interview and

talked about their feelings about the previous interaction experience with the digital characters.

The thematic analysis of the interview data of the participants showed some common features.

The answers from the participants were usually short and simple, due to their limited language

proficiency. However, their answers still provided important perspective about the experience

interacting with the TeachLivE digital characters.

     The interviews of eight participants were read through carefully. A list of topics was

compiled after the first round of data analysis. Similar topics were clustered and combined into

major categories. Participants' different and similar opinions were collected and listed under

each topic and category. The contradiction among the participants and the interrelationship of

topics were carefully reviewed and clarified. The coding process was checked by another peer

researcher and only the categories that were agreed by both data analysts were reported. The

results were also sent for member check. After comparing the eight interview and grouping

topics that relate to each other, three major categories emerged after coding the interview data from the participants, including whether the interaction was similar to real-life interaction, the participants' feeling/emotion while interacting with the digital characters, and how the personality of the digital characters might influence the participants' preference and interacting experience.

The first theme emerged from the interview data is authenticity of the TeachLivE digital characters and the interaction experience. All the eight participants mentioned that it was very like real-life interaction. Some of them felt no difference from interacting with real native speaking people, like participant five commented about the comparison between interacting with digital characters and interacting with real people: "It's the same. I didn't see any differences. It's more or less the same, of different personalities. It's close to the reality speaking with other people. I don't see any difference. Like they are in the image screen and no face to face, a little a little slow the answer a little slower than face to face." Three of them commented that talking to the digital characters was weird or odd, because they were too much like real-life people. For example, participant one mentioned she was excited to see the digital characters acting like real people: "what impress me the most when they reply immediately like they're are sitting in front of me and it's like very very real to me" and she also said, "First it was a little bit weird because I'm- they like interact like real people. And but at the same time it's amazing." Participant two stated that it was not difficult to adapt after feeling shock at the first couple of minutes, and the authenticity of the interaction made her feel normal very soon: "It's weird but. It's actually I talk to them. I feel normal because they are like real people. So I think I'm talking to people. So it's not weird anymore." It was a positive feeling because if the participants felt it was like a real-life conversation, the strategies and confidence would be easier to transfer into the real-life

communication. Talking to their digital peers also brought about the advantage that students may not obtain from studying at an intensive English program (IEP). For example, participant six was happy because the teachers in the IEP only use simple English to communicate to them and here she could experience real communication with the native speakers, which is a little bit ironic because the digital characters are not real but in her opinion the communication is more genuine than real-life communication with a teacher.

The second theme is the participants' emotional feeling about talking to the digital characters. All the eight participants mentioned that they were quite relaxed during the task. Seven of them clearly expressed that talking to the digital characters were more comfortable or easier than talking to native speakers in real-life. Specific comments included the following:

"I feel more comfortable talking with them than talking with their real people who's sitting in front of me. Like talking with the screen people in screen, It's more comfortable for me…Because I don't I don't have to like I don't have to see like real people who might judge the way that I talk or the way that I speak or the way that I look. Digital characters are more comfortable for me."

"I actually have like an easier experience talking to this as opposed to talking to real people. Because I do have a hard time talking to people and it was easier initiating contact with them… I have a hard time keeping the conversation going. But it was very easy like doing so with them."

"Sometimes I am talking to other native English speakers. I feel nervous because sometimes you can understand sometimes you cannot. You cannot explain things like this. It's hard to describe. You have nothing to lose at all. We all make mistakes. Because if you make

mistake in front of native speakers, you are nervous. Then you everything is wrong. But here. When you made a mistake, it's OK."

The participants also stated several reasons for the more comfortable and relaxed feeling, including: (1) not afraid of being judged by others; (2) not afraid of making mistakes or bad first impression; (3) more confidence in talking; and not afraid to request repetition or clarification if they did not understand. Some specific comments from participants mentioned more delicate psychological status while talking to the digital characters. For example, participant two claimed that she felt stronger as if she was at the same level as the native speaking digital peers.

The perspectives of the participants correspond to the previous findings. They were active in initiating repairs, and even took on a more aggressive and assertive part when they and the digital characters were talking at the same time. It is also worth noting that two of the participants mentioned it was hard to talk to native speakers in real-life, but with the digital characters it was much easier. It was effortless to keep the conversation going, and they enjoyed answering the digital characters' questions. From the participants' feedback, we can confirm that the interaction protocol was favorable to them.

The third theme is how the personality of different digital characters influenced the participants' interactive preference. Four of the participants expressed that Maria was the one they liked to talk to most. The reasons included that she is more introverted and quiet, she is a deep thinker, she speaks more slowly than others. Specific comments are listed below:

"And Maria. Her personality is interesting because she looks shy, dressed in a black something like this…Because her personality is interesting because I'm the opposite of this. I'm outgoing and I'm very like. So I want to know more."

"I like Maria… Even though she is introvert she has a lot to say…when we start talking I got to you know more what she thought…because she is kind of my kind of demeanor the way she sat, I'm like that I have a lot to say."

"Maria and me are same like…Maybe because she told me about the culture experience…She talked a little more than others. For example, CJ when she talks I don't understand…"

Kevin got three votes for being the participants' favorite. The main attraction of Kevin is his easy-going and carefree personality. The answers showed that the digital characters' personality also had an influence on the participants' interaction experience. They were more relaxed and enjoyed the conversations more with the digital characters that are not as intimidating or aggressive like CJ. Also, it will help them to understand when the digital characters speak soft and slow.

The participants had little memory about the recast from the digital characters while being asked whether they remembered the digital characters would sometimes repeat what they said. Some of them might remember a little bit after being reminded, but no one remembered details and they were not sure why the recast happened. The recast happened very naturally during the conversation, however, as the data analysis showed, in a task focusing on information exchange, the ELs may not have been able to pay attention to the implicit instruction. At the end of the interview, all the participants expressed their interest in experiencing more simulation like TeachLivE. One of them even mentioned that if possible she would like to purchase the program and practice at home. Other comments from the participants included that the topic was meaningful and led to deep discussion, and it increased the chance to practice English with native speakers, etc.

The interactor's perspective. A post-task interview was also conducted with the interactor talking about her experience following the protocols during the interaction with the English learners. Working on this project was a fresh and new experience for the interactor at TeachLivE and she also had her own reflection on the project. The interview was read thorough to identify as many topics as possible in the data and similar topics were clustered together into major categories. While coding the interview of the interactor, the topics were compared with those in the interviews of participants. The interrelationship between the topics of the two sets of interviews were also reviewed and analyzed to find any connection between the interactors' work and the participants' feedback and performance. The coding process was checked by another peer researcher and only the categories that were agreed by both data analysts were reported. The results were also sent for member check. Coding of the interview data showed three categories emerged: manipulating different personalities of digital characters, challenges in interaction with the ELs, and the benefits for ELs talking to the digital characters.

The first important theme is the interactor's control of different digital characters. As mentioned in Chapter Three, the five digital characters have different personalities, profiles and background stories. These characters are first designed to represent typical categories of students so the pre-service teachers will be prepared to deal with the possible issues of different kinds of students. However, according to the interactor, in this project, different personalities of the digital characters not only represented different kinds of people in real life, but also worked as a useful strategical tool to balance the communication, keep up the fluency of their interaction, and create a real-like and agreeable communication environment for the ELs to practice their English conversation. On commenting whether the interactor would slow down or modify their language for the ELs, the interactor emphasized the importance of following the characters: "we have to

follow up our characters. Maybe if they don't understand something I will try to explain it, say it a little bit slower as the character can. Well I did it in a way which the character would do. Does that make sense? It wasn't really [interactor's name] speaking in the way but rather Kevin or Maria or CJ would have done it." The interactor also explained the different communication style of these digital characters: "I think CJ she likes understand…because of her personality she understands things in a more superficial manner. She may repeat something but not put really many thoughts into it. She says it and she will forget about it. That's her personality. She speaks as like everyone here speaks English. That's not a problem because of her personality. While maybe somebody like Maria, when she noticed someone has difficulties, she probably was able to adjust her speech a little more, more conscious to that… Maria because she's a deep thinker, and she is somebody who formed a worldview, well-rounded and spiritual type personality. She is also very interested about people. She genuinely wants to hear from you and she genuinely wants to know what to communicate."

The strategies explain why half of the participants considered Maria as their favorite. She is the one who is more conscious about ELs' needs and more likely to adjust her speech for them. That also explains why one of the participants mentioned that Maria talked more, for in that specific situation, the participant might need the interactor to adjust speech more for her. However, such modification is more covert, under the cover of the digital characters' personal traits and speaking styles. Therefore, the participants would not feel that the native speakers were doing a favor for them by speaking simpler or slower English, just because the participants' English proficiency was not good enough. As mentioned in the last part of this chapter, one of the participants also commented that the digital characters were more real to them because native-speaking teachers in the IEP used simpler and slower English. When ELs sense people

modifying their language, it may increase ELs' self-consciousness of their own limited English proficiency. However, while talking to the digital characters, the participants were more confident and relaxed, not only because they were aware that it was just a virtual environment, but also they felt that the digital characters did not regard them as ELs but as native speakers. It also explains in the last part, one of the participants commented that she felt strong and that she was at the same level of the native-speaking digital characters.

The advantage of manipulating different characters was also showed in keeping the fluency and focusing the topics of the conversation. One important thing that the interactor had to keep in mind during the interaction was to help the participant going through the whole task and obtaining task objectives, which means, it requires the digital characters to have certain guidance and control through the conversation. The interactor expressed that it was not hard to keep the whole conversation on track since there were five characters and any one of them might start a new topic and bring the conversation back if the participants went too far from the topics, as quoted in the following sentences: "as an interactor I have five different characters So if CJ goes off the topic or Sean goes off the topic other three characters can come back and stay at the topic. So I don't think it's necessary hard. You know, just something else we need to think about. And make it happen naturally too. Like some character will push things in a particular way." The statement again expressed that the interaction had the features of natural and real conversation, and when such guidance happened, it did not seem weird to the participants.

The second theme that emerged from the data is the challenges for the interactor in this project. The interactor should monitor the personalities of different digital characters as well as following the interaction protocols that specifically designed for this project. Besides, it is the first time that TeachLivE simulation is used to communicate with the ELs. From the interactor's

138

comments, talking to ELs was not hard, for all the participants' English proficiency was high enough to proceed with the communication. The interactor also gave good evaluation to the participants' performance: "I think they all did it very well. They not only communicated efficiently but they also express their experience in correct words and said things very clearly. Overall I think they did a good job." The biggest challenge identified by the interactor is the recast/correction part during the conversation, as quoted from the interactor: "That was very hard because they didn't quite fit with it. Sometimes the conversation was very fluent. And they were communicating their thoughts with me so it's hard to correct their language to me…Yeah I think it's the most difficult part. I have that in my head and I try to do that without interrupting the fluency but then it just became rather difficult." The theme again confirmed the focus of the project is on exchanging the meanings, and it explains the participants' absent attention on the recast/correction part.

The third theme is the potential benefit of the project to the ELs. The participants have expressed their appreciation for the chance of practicing English with their native speaking peers and the feeling of confidence in communication with their second language. The analysis of the interactor's interview confirmed that the interaction with digital characters would be beneficial to the ELs, in both the content of topics and the platform of a virtual environment. According to the interactor, the project was rewarding to her personally: "It's always nice to see the students, the Arabic students, because obviously they all have very different perspectives of the world." And from her observation through the interaction with the participants, she commented that the participants would have similar rewarding experiences while exchanging ideas about living abroad experience and different cultures: "So I appreciate that our students can talk to the characters or other students who also have gone through the experience of going to a foreign

139

country, and kind of going through the same problems. While talking though the same experiences I think it's valuable it will help people, you know, it's hard to be in another country and try to live somewhere else. And I think hearing experience from other people, you can communicate and you can understand, and identify with…it's a very powerful thing." About the virtual environment practice, the interactor mentioned that TeachLivE simulation was designed to prepare students to deal with real-life situations, it would be helpful especially to those who were struggling in speaking English as a second language: "Like I said it will help people who have been struggling in language or like that in kind of opening conversation that may not be ready for talking to the real people. What I think would be with the avatars that people are willing to engage sometimes in the conversation they would not engage in real-life. So I think how many opportunities we really open to that and how many opportunities they can identify with the experience of the avatars can be very valuable."

When we compare the themes from the interview data of the participants and the interactor as well as observation notes, some factors were very critical in explaining the collaborative and cooperative patterns, which had appeared the most frequently in the interaction between the adult ELs and their digital character peers. To answer the second research question, we found the following factors contribute most to the collaborative and cooperative patterns in the conversations. First, the simulation provided a very authentic but also safe and relaxed environment for the ELs. In this environment, the ELs were less afraid of making mistakes or being judged by the native speakers, they were more open to discussion and therefore intend to talk more. Secondly, the group of digital characters has advantage over a single native speaking character, because multiple digital characters may have different personalities so when the characters adjusted their speech or offer guidance through the conversation, it will be less

obvious and make the ELs more identified with the digital characters' language proficiency. The

influence is also critical to increase the ELs confidence in communication in a second language.

Lastly, the professional trained interactors with specific interaction protocols that designed to

scaffold the ELs through the task are also a very important factor to help the ELs engage into the

conversations.

CHAPTER FIVE CONCLUSION

The TeachLivE learning laboratory has been used to prepare pre-service teachers for classroom teaching for years. It's an innovative learning environment with professional control of factors in an instructional setting. This study explored using the TeachLivE lab for interaction and communication in an ESL setting, which opens a new field to apply this educational technology. The analysis of the conversation data and interview data demonstrate important features about the interaction between adult ELs and their digital character peers. The major findings answer the research questions of the study: (1) What are the most common communication patterns in conversations between adult ELs and TeachLivE digital characters? and (2) What factors influence communication patterns in conversations between adult ELs and TeachLivE digital characters? The results not only describe what happened during the interaction between adult ELs and the digital characters, but also provide inspiration for promoting the efficiency of practicing oral language for the ELs and improving their oral English language proficiency.

Summary of the Findings

The conceptual framework of the study is Vygotsky's Sociocultural Theory and the concept of ZPD and scaffolding. In this study, the English learners needed help to achieve efficient and fluent conversation as a group leader and engage more actively in the conversations with multiple native speakers. These goals were set as their potential development level. In both pre-task interviews and post-task interviews we can find that the participants have limited proficiency in expressing themselves. They needed prompts and add-on questions to talk about their opinions, observations and feelings, which clearly indicates their actual development level.

The general data showed the participants were able to finish the main task objectives with the help of the digital characters, and the participants were actively involved in the conversations. The goals of the tasks and the potential development level were successfully achieved. The digital characters performed as the help or guidance to the participant and led them to achieve a more engaged, fluent and active conversation in a simulated classroom discussion. In the detailed conversation analysis of the interactions, the results showed the digital characters' scaffolding role by applying different conversation strategies, including asking the easy and familiar questions for warming up, passing topics among the digital characters to keep the fluency of the conversation, making the conversation more EL focused, intentionally asking for clarification and turning to less imposing repair strategies, etc. These types of scaffolding strategies lead to more collaborative and cooperative patterns in conversations, according to the previous literature (Kowal and Swain, 1994), which are considered the most efficient patterns in language learning and improving language proficiency. The thematic analysis of the observation notes and interviews also showed that the virtual platform of communication, the digital characters' modification of speech style among themselves etc., can also work as effective scaffolding factors for the ELs to achieve more comfortable and fluent conversations.

The previous studies on communication patterns between NS and NNS are mostly focused on mutuality and equality between the speakers, such as the study of Storch (2002). The communication patterns based on mutuality and equality could only perceive whether the two parties of the speakers contribute equal utterances in a conversation and whether they cooperatively answer each other's questions. However, using conversation analysis, this study reveals more details about the interaction between ELs and native-speaking digital characters. The conversation analysis of the interaction included the description of three different

conversational organizations: turn-taking organization, sequence organization, and repair organization. The examples of turn-taking organization demonstrate that the participants initiated turns during the conversation in different ways, which indicate their active engagement in the conversations. They would start with introducing themselves, initiating questions, selecting digital characters to answer questions, and inviting different characters into the discussion of a certain topic. When the digital characters initiated the turns, the main function was to elicit opinions and the sharing of experience, or pass the topic to another digital character to keep the fluency of the conversation. There are also occasions that the participants and the digital characters were so connected and deeply involved in the conversation, that they would finish each other's sentences, which is a critical feature of collaborative communication.

The analysis of sequence organization shows more of the equal relationship and collaboration between the participants and the digital characters. There are very few QAQAQA sequences in the conversation, which means just questions and answers between the participants and the digital characters. Among all the conversations, the most frequently emerged sequence organization is the QAC sequence, in which the parties involved in the conversation will comment on each other's answers. Both the participants and digital characters would take time to confirm the answers, give comments and show their agreements or disagreements. In many occasions, instead of this single way QAC sequence, the participants and the digital characters would use the reversed QA or QAC sequence, in which the question initiator would alternate. In this way, the conversation was going on more smoothly, while both parties wanted to hear from each other's experience or opinions. The power relationship is also more equal because both speakers took turns to be the question initiator.

The analysis of repair organization shows that the repairs during the conversations are usually immediate and successful. Most of them are second position repairs. The participant or a digital character requested for repetition or clarification of certain questions or statements, and the problems were solved quickly and successfully in the next turn, which also indicates the high mutuality between the speakers. Compared to the second-position participant-initiated repairs, the second-position digital-character-initiated repairs are usually more voluntary and more concerned about the participants' self-esteem, while the participant-initiated repairs are more direct and simple. Besides clarification of each other's statements, the repairs of silence/speaking at the same time especially shows the active involvement of the participants. The data shows that there are 35 times when the participants and the digital characters were speaking at the same time, among which 18 times the participants kept talking and the digital characters stopped; 7 times the digital character kept talking and the participants stopped and waited until the other party finished the sentences; and 10 times they both kept talking. In this case, the participants act more actively and aggressively in the conversation and had strong will to talk and express their opinions. However, when silence happens, in most of the cases, the digital character was the one to initiate the repair and avoid the break and awkwardness of the conversation, which is helpful to maintain a fluent and positive tempo of the communication.

Since the conversation analysis provides more details in communication than just reflecting equality and mutuality, there is one situation that the communication is not collaborative enough even though both the equality and mutuality are high. For example, in a typical QAQAQA sequence or QACQAC sequence, the speakers may contribute equal utterances in the conversation, and the mutuality is also favorable because the speakers cooperatively answer the questions, and there is no refusal to answer the questions, or obvious

detour from the conversation. However, as analyzed before, such conversation organization still reflects a certain unequal power relationship in a conversation, because one side is always the turn initiator and the other side may cooperatively but still passively just answer the questions without giving comments or initiating new turns, topics or questions. Such a pattern is defined in this study as the cooperative pattern. The cooperative pattern could happen when the participant takes the more active role, who is the turn initiator most of the times, or when the digital characters takes the more active role. In most of the cases of cooperative patterns, digital characters are the turn initiators.

From the analysis of the conversation data, we find that three kinds of communication patterns emerged during the interaction between the adult ELs and their digital character peers: dominant/dominant pattern, collaborative pattern and cooperative pattern. In all the three communication patterns, both parties equally contributed in the conversations. Sometimes the participants or the digital characters might have a longer statement over some topic, but it usually was followed by long comments from the other side. Therefore, there is no obvious expert/apprentice or dominant/passive pattern in the conversations, and there are also very few examples of dominant/dominant pattern, in which both the participants and the digital characters were trying to control the conversation and the mutuality is low. The most frequently appeared communication patterns are collaborative and cooperative.

The interview data provides insiders' perspectives from both the participants and the interactor, which helped to explain the more active performance of the ELs and the collaborative and cooperative communication patterns. The participants were excited about the experience interacting with the digital characters. The interview shows that the participants considered the

conversations very authentic and they could interact with the digital characters just like interacting with real-life native speakers, and sometimes it was even more real than talking to the native-speaking teachers at the IEP because the teachers might speak slowly and use simple words and sentences. Moreover, talking to the digital characters was more relaxed to them. They felt comfortable and the conversations went more easily. The ELs were more willing to talk because they were not afraid of being judged by others, and they were not afraid of making mistakes or bad first impressions. Therefore, the ELs felt more confident during the communication. For example, they were not afraid to request repetition or clarification if they did not understand certain words or phrases in the conversations.

The interview data of the interactor also contributes to the explanation of the communication patterns that emerged during the conversation, and the interactor's comment provided another perspective to interpret the participants' feelings about the interaction experiences. One of the most important findings is the interactor's manipulation of all five digital characters and why multiple digital characters had certain advantage in communicating with the ELs. For example, keeping a whole conversation on track would not be very hard since there were five characters and any one of them might start a new topic and bring the conversation back if the participants went too far from the topics, so it is not necessary for the character who was speaking to stop and change the topics. More importantly, while manipulating the different personalities and speech styles of multiple digital characters, the modification of the language complexity and speech rate became more covert. Therefore, the ELs would not feel that the native speakers were adjusting their language to a lower proficiency level because the ELs' language level was limited. When ELs sense people modifying their language, it may increase ELs' self-consciousness of their own limited English proficiency. However, while talking to the

digital characters, the participants were more confident and relaxed, because they felt that the digital characters did not regard them as ELs but as native speakers. In the participants' own words, they felt "stronger, and became one of them." The interview with the interactor also indicated the potential benefits of the ELs. According to the interactor, as TeachLivE simulation was originally designed to prepare pre-service teachers to deal with real-life classroom teaching, the digital characters would be also helpful in preparing the ELs who might be shy or struggling with oral communication to build up confidence and feel more comfortable to talk to the native speakers in their daily life.

From the observation notes and interview data of the participants and the interactor, certain themes are repetitive and related to the collaborative and cooperative patterns, which are the most common communication patterns in the interaction between the adult ELs and their digital character peers. First, the simulation provided a very authentic but also safe and relaxed environment for the ELs. In this environment, the ELs were less afraid of making mistakes or being judged by the native speakers, they were more open to discussion and therefore tended to talk more. Secondly, the group of digital characters has advantage over a single native speaking character, because multiple characters have different personalities and when the characters adjusted their speech or offer guidance through the conversation, it will be less obvious and make the ELs more identified with the digital characters' language proficiency. The influence is also critical to increase the ELs confidence in communication in a second language. Lastly, the professional trained interactors with specific interaction protocols designed to scaffold the ELs through the task are also a very important factor to help the ELs engage i the conversations.

Discussion

From the observation and the feedback of the participants, the interaction experience has positive influence on the ELs' practicing spoken English. Such experience is new to them and is very different from their daily communication. However, the interaction between the ELs and digital characters is also different from the online communication discussed in the previous literature. In previous studies, the synchronic oral communication with peers is usually conducted through Skype or other communicative platforms, and almost all of them are one-to-one communication. Very few studies have ever explored the communication of one EL among multiple native speakers in a group discussion, because such situation will create too much pressure for the EL to feel comfortable or find the chance to speak. For example, in Zhu's (2001) study, while communicating with their native-speaking peers, the ELs tended to take fewer turns to talk and performed largely "responding" functions during oral discussions of writing. Thus, non-native speakers might not have benefited as much as they could have from the communication. Even via computer-mediated communication, in which the studies show that there are more collaborative dialogues, the dominant/passive and expert/novice patterns exist (Yanguas, 2012). This means that even in a one-to-one talking situation in virtual environment, the equality of communication is not easy to achieve. However, in this study, while one EL speaking with a group of five native-speaking peers, the communication shows high quality of collaborative dialogues. Comparing the length of their utterance and the communication within the conversation turns, we can find that the equality of their communication is also exceptional. There are no obvious examples of dominant/passive or expert/novice patterns in the conversation.

The high quality of collaborative dialogues is not incidental. As discussed in Chapter Two and Chapter Four, lack of professional knowledge on language and interaction skills becomes an important factor influencing the effect of peer interaction, especially for the communication efficiency of the ELs. However, this factor can be manipulated by providing training for the peers to improve the quality of peer interaction. In this study, the native-speaking digital peers are animated by professional trained interactors with protocols of specific instructions for them to cover during the task. Their performing objectives are to encourage the ELs to talk more, create fluent and comfortable conversations and help the ELs successfully achieve the task objectives. Therefore, the high quality of collaborative dialogues can be expected. However, to achieve collaborative conversations of such a level in a NS-NNS mixed group like this or via virtual platforms other than TeachLivE, one has to find five well trained peers to sit down with the ELs and talk to them, which is a very complicated situation to control. From this perspective, TeachLivE simulation has the unique advantage in providing incomparable peer discussion experience to the ELs.

One of the unexpected findings of the study is the advantage of manipulating multiple digital characters. Few studies have been done to explore the communication of 1-NNS v.s. multiple NS, and it's even harder to observe what would happen in peer interaction for NNS with multiple professional trained peers, digital or real-life. Now with the new technology of this classroom simulation, we can discover some features of such communication. First, from the results of the conversation data, we can expect that the quality of the collaborative dialogues might be ever higher than one-to-one communication with trained peers. On one hand, those digital characters appear to the "peers" of the young adult ELs, but actually they are professionally trained interactors for educational purposes. The short-term training for real peers

cannot obtain the same performance. On the other hand, as mentioned in the interactor's interview, the multiple characters make controlling the conversation easier. It will encourage the ELs to talk more since different characters may have different interested focus and they will raise different questions. Secondly, multiple characters will cover the traits of language modification and adjustment from the native speakers, which makes the ELs feel more confident and identify more with the native speakers' language proficiency.

Suggestions for Future Research

The study is only an exploratory one for the new field of using a virtual platform for ESL learning. The results indicate the potential to transcend the ELs limitation of learning oral language only in the classroom and to prepare a comfortable but also authentic environment for them. Given adequate time and funding, there will be more studies examing the influence of the new technology in ESL communication. Previous studies suggested that collaborative dialogues were more effective in promoting language learning (Kowal and Swain 1994, Donato, 1994), as discussed in Chapter Two. While the design of the task in this study was more focused on exchanging information and opinion, further studies can be done to find out how language transfer happens in communication between ELs and the digital characters. A possible research question could be whether the interactions with the digital peers can promote language transfer and language acquisition. This would expand the application of the technology more into language learning and teaching. For example, a task could focus on discussing or practicing vocabulary, language forms or grammar. These studies on language learning could additionally explore the features of communication and interaction between ELs and their digital peers in a language form-focused task. Moreover, delayed post-tests or observations of classroom

performances could be conducted to check the internalization of the language related knowledge. Considering in this study the participants showed high motivation in practicing English with the virtual class, it would be interesting for further studies to find out whether it will be more efficient for the ELs to practice their language knowledge with the digital characters, and remember and apply the knowledge better in the future.

This project is a qualitative study with limited numbers of participants. However, given enough EL participants for the future studies, quantitative studies could be conducted to find out the different features or effects of communication between ELs and the digital characters compared with communication between ELs and their native-speaking peers by applying certain assessment instruments to evaluate the participants' language performance after a period of interactive sessions, for example, a post-test on vocabulary acquisition. With a large enough group of participants, it would be possible to for quantitative, comparative studies to find out if there are significant differences in language learning effects compared with face-to-face learning or practicing experiences with real-life peers or instructors.

Another potential research direction is to recruit different digital characters. This study selected the native speaking digital characters as the peers of the adult ELs, however, the TeachLivE simulation also developed EL digital characters of different language proficiency levels. Currently there are three different EL digital characters in TeachLivE: Tasir of the advanced level, Edga of the intermediate level and Edith of the beginning level. Previous studies indicated the differences of Native Speakers-Non-Native Speakers communication and Non-Native Speakers-Non-Native Speakers communication (Philips, Adams, & Iwashita, 2014). With digital characters of different language proficiency levels, it would also be possible to design

tasks for the ELs for peer tutoring. For example, the advanced and intermediate level ELs could explain what they learn to the intermediate and beginning level EL digital characters. The literature on peer tutoring has indicated that the process could be beneficial to both tutors and tutees (Flanigan, 1991; Healy and Bosher, 1992). Therefore, the tutoring process can be a possible way to review their language knowledge and reinforce the development of interlanguage. In such virtual setting, the trained interactor could challenge the ELs by asking questions about certain language use under the cover of less proficient peers instead of an instructor who may ask the similar question in a role of a superior examiner. According to the results of this study, since tutoring EL digital characters also happens in a virtual environment, it will possibly provide a more relaxed and safer place for the ELs to speak and organize their thoughts. The tutoring process may lead to different effects compared to real-life peer tutoring.

Limitations and Delimitations

As discussed in Chapter One, the study has two major limits: the limited number of participants because of the limit of budget and time and the participants' unfamiliarity of the new technology. From the result of the study, we can see that by applying Conversational Analysis, the study discovered many more details from the two-hour long conversation data than the previous studies that simply analyzed the equality and the mutuality of peer interaction. Also, in the interview data, the participants expressed that it felt weird to talk to the digital characters the first time, and for some of the participants, the conversation data also showed awkwardness in opening a conversation. However, the ten-minute orientation session also helped to reduce the unfamiliarity. During the orientation, the researcher introduced the digital characters to participants, and encouraged them to ask different questions to test how real the digital

characters could be. In fact, all eight participants mentioned that the interaction experience was comfortable and relaxed after getting to know all the digital characters.

The pre-task interviews were given to provide reference of the participants' language proficiency. Though they are all students of intermediate levels, their actual spoken language proficiencies are different among the small group. For example, the language level of participant one and two are obviously better than the participant five and eight. The researcher did not ignore the proficiency difference among that of participants and the conversation data also indicated the proficiency difference has potential to influence communication efficiency. The conversations with high-intermediate participants were usually more collaborative than the conversations with low-intermediate participants. The digital characters had to rely on more scaffolding strategies in the conversations with low-intermediate participants. However, the proficiency level did not have significant impact on the communication patterns. All the participants basically accomplished the communication tasks. The potential proficiency level difference was not considered in recruiting participants and study design for this project. However, studies specifically designed on exploring the communication strategy differences with ELs of different language proficiency may be conducted in the future.

The interaction task was a challenge to both participants and the interactors. Though the researcher went through a training session with the interactor before data collection, the interaction could have been better organized if a similar task had been done with the same group of participants, and the conversation data might have been more thorough and accurate to reflect the performance of both participants and the interactors. For example, neither the participants nor the interactors were able to control the time limit for the task and the researcher had to set up the

time reminder for each of them. Therefore, the time for each participant was not evenly distributed. However, due to the time and budget limits, the study was only able to collect one round of data. The double-task design could be applied in the future study to provide a more comprehensive understanding about the participants and the interactors' performance during the interaction.

In this study, the different personalities of the five high-school digital characters were already developed by the TeachLivE lab. The personality models have been tested and practiced for years and are fully maturely developed. The study borrowed the original characters and profiles and just added the travelling and studying abroad background. It was not practical in this explorative study to develop new characters and personalities. However, the existing digital characters may not be comprehensive enough to reflect the communication and practice needs for the ELs. Also, we used the high-school digital characters because their age and mental status are the closest to the young adults among the existed digital characters. Currently the TeachLivE lab does not have college-aged school digital characters available. Moreover, the scaffolding conversations with ELs required that the interactors have experience and knowledge of ESL proficiency levels and TESOL strategies. Right now, there are very limited number of interactors who have been trained with EL models, and more studies and trainings are one the way to develop the TeachLivE lab's application in language learning area.

The protocol for the interactors in this project was designed by the researcher specifically for the objectives and tasks of this study, and was limited by the researcher's knowledge and potential bias. The protocol was created based on the previous peer interaction designs and the researcher's years of teaching experience with ELs. The effectiveness of the protocol may be

tested in future studies and projects. The task was designed to achieve the maximum involvement of both participants and the digital characters and create space for discussion and more turn-takings. For future studies aiming at language transfer or vocabulary acquisition, a totally different protocol should be designed for the interactors to fulfill different study objectives.

APPENDIX A IRB APPROVAL

Approval of Human Research

UCF Institutional Review Board #1 FWA00000351, IRB00001138

To: Date: Dear Researcher: On 06/20/2017 the IRB approved the following human participant research until 06/19/2018 inclusive:

From:

Ting Yan June 20, 2017

Type of Review: Project Title:

Investigator: IRB Number: Funding Agency: Grant Title:

Research ID:

UCF Initial Review Submission Form Expedited Review

Exploring Interaction between Adult English Learners and Their TeachLivE Digital Peers

Ting Yan SBE-17-12888

SBE-17-12888

The scientific merit of the research was considered during the IRB review. The Continuing Review Application must be submitted 30days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form cannot be used to extend the approval period of a study. All forms may be completed and submitted online at https://iris.research.ucf.edu .

If continuing review approval is not granted before the expiration date of 06/19/2018,   approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Participants or their representatives must receive a copy of the consent form(s).

All data, including signed consent forms if applicable, must be retained and secured per protocol for a minimum of five years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained and secured per protocol. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual. On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Signature applied by Gillian Amy Mary Morien on 06/20/2017 08:51:46 AM EDT IRB Coordinator

APPENDIX B TEACHLIVE SCENARIO TEMPLATE

Scenario Title: Group discussion of cultural diversity

Client: Ting Yan

Session Length: 7 – 10 min

Section 1: The Learner

What is the role of the learner?

☐Teacher   ☐Administrator ☐Counselor   ☒Peer

Describe what you would like the learner to do:

Students will practice English conversation with native speaker avatars. Students will focus on facilitating a group discussion as well as expressing themselves in the conversation including making cultural observations and firmly stating opinions.

Based on this description, create up to three learning objectives:

Learning Objective 1: Students will facilitate a group discussion of experiences living in the United States and experiences living or visiting abroad.

Learning Objective 2: Students will address all members of the group and elicit responses from each avatar.

Learning Objective 3: Students will share his or her opinion in the discussion and manage conflict within the group.

How would a successful learner complete the objective(s) differently from an unsuccessful learner?

Successful learners will be attentive to differences in communication styles amongst the group and facilitate a discussion where group members have an approximately equal voice.

Less successful learners may have difficulty maintaining the conversation, may become uncomfortable managing conflict in the group, or may neglect members of the group.

Section 2: Content

Describe the academic content of your session:

This session will focus on the discussion of culture based on experiences living and traveling to different countries. The avatars in the discussion group will have a range of experiences with travel to countries outside of the United States.

Section 3: The Scenario

What is the physical environment of the simulation?

☐Kindergarten classroom ☐Middle school classroom ☒High school classroom

☐Office ☐Other:

What does the learner know before starting the simulation?

The learners will know the names of the digital avatars and know what the virtual reality environment looks like.

What has happened before the learner begins the simulation?

The learners has briefly introduced to TeachLivE in a 10-min orientation.

What happens during the simulation?

The learner will facilitate a group discussion on culture and travel.

How does the simulation end?

When the discussion concludes, or the session time runs out, the facilitator will end the session.

Section 4: Characters

Who are the virtual characters in the simulation?

☐Andre ☐Bailey ☒CJ ☒Ed ☐Edgar ☐Edith

☒Kevin ☒Maria ☐Martin ☐Monique ☒Sean ☐Tasir

☐Clifton ☐James ☐Stacy ☐New Character

How intense are the challenges provided by the virtual character?

☐0 – No resistance to the learner, virtual characters are generally attentive. Confidence building for interactions with the system.

☒1 – Mild resistance to the learner, virtual characters may become inattentive if activities are not engaging, but are easily refocused by the learner.

☐2 – Mild resistance to the learner, virtual characters may become inattentive or distracted; may question the purpose of activities initiated by the learner; and may engage in off topic interactions.

☐3 – Average resistance to the learner, virtual characters may choose not to participate in learner initiated activities; may question the validity of academic material presented by the learner; and may not always work well with peers.

☐4 – Moderate resistance to the learner, virtual characters may engage in bullying behaviors and negative interactions with peers; may disparage the topic of the lesson; and may intentionally disrupt the environment. Some profanity may be used.

☐5 – Intense resistance to the learner, virtual characters will actively challenge learner initiated activities. Interactions may escalate to the point of personal verbal attacks directed at the learner. Profanity and intensely offensive language may be used. *(Please note that scheduling a level 5 session requires additional approvals from the TeachLivE team and the Internal Review Board.)*

Section 5: Feedback and Alignment

How will learners receive feedback on their performance?

The learners will receive feedback from the researcher during the interview after the session.

How will each of the learning objectives be measured?

Measurement of Objective 1: Learners deliver the short speech fluently and with no major phonetic or grammatical mistakes; learners deliver the short speech fluently with the help of the interactor and notice the recast forms of their mistakes and are able to correct them.

Measurement of Objective 2: Learners show attention to all group members and ask questions in polite and appropriate way; they are able to show their attention and maybe comment a little bit to the avatars' answers.

Measurement of Objective 3: Learners either state their disagreement or compromise to the conflicts in appropriate ways.

What will the learner do before the next session (If this is a multi-session scenario)?

Alignment Table

Objective	Opportunity presented by the characters or scenario	Ideal learner response	Character response to the ideal learner response	Inappropriate learner response	Character response to inappropriate learner response
1. Students will facilitate a group discussion of experiences living in the United States and experiences living or visiting abroad.	Avatars will have pre-set experiences traveling abroad and personal observations of cultural differences for the student to discover.	Students openly share their experiences, and ask the right questions to lead the discussion and find out the information	Give short positive comments and answer the questions	Students are not able to deliver effective speech; ask questions in offensive ways; don't know how to organize questions	Help the students to speak correct words and sentences but in a friendly and helpful way
2. Students will address all members of the group and elicit responses from each avatar.	Some avatar group members will be more willing to participate, others will require some prompting to share their thoughts.	Students will address to all members of the group	Answer the questions and let the discussion go on.	The students forget to ask other members of the group and pass to the next task	Kindly remind him that maybe someone else also want to share something
3. Students will share his or her opinion in the discussion and manage conflict within the group.	Avatars will press the student for his or her personal opinion. At least two avatars will clearly disagree on some aspect of the discussion and press the student to become involved in the conflict.	Students will state their disagreement in an assertive but not offensive way; students know how to show their strong agreement; students are able to deal with the conflicts in the group	Just state opinion and keep the discussion.	Students state their opinion in an offensive way; keep silent while there are conflicts	Give examples of the appropriate way to state disagreement and dealing with conflicts, either to take sides or make compromise

APPENDIX C CONVERSATION DATA

Transcription symbols

[ ] Overlapping or simultaneous talk

   Separate left square brackets, one above the other on two successive lines with utterances by different speakers, indicates the beginning of overlap. Separate right square brackets, one above the other on two successive lines with utterances by different speakers indicates the end of the overlap part.

= continuity of speech

   If the lines connected by two equal signs are by different speakers, then the second followed the first with no discernable silence between them. If the two lines connected by the equal signs are by the same speaker, then there was a single, continuous utterance with no break or pause, which was broken up in order to accommodate the placement of overlapping talk.

__ stress of the sound

   Underlining is used to indicate some form of stress or emphasis, either by increased loudness or higher pitch. The more underlining, the greater the emphasis.

: prolongation or stretching of the sound

   The more colons, the longer the stretching.

- a hyphen after a word or part of a word indicates a cut-off or self-interruption

↑↓ Rise and fall of the pitch

(hh) chuckles or laughers

(0.3) length of silence

   The number indicates the seconds of pause or silence.

… natural pause in speech

{ } mispronounced word

Participant One

Time: Mar. 20, 2017, 5: 03 p.m.

Location: UCF Teaching Academy, TeachLivE Lab.

P1: OK:↑. Hello everyone! I will tell you my name one more time. My name is Norah↑. And I am twenty four year- twenty, twenty four years old. And I am a student at…uh↓…UCF Global↑. I'm studying English language now. And this is my first time to be {abrode}, far away from family and friends, my county. An:d…after that, after English language, I am planning to uh…um…to take my master degree in business administration. Am:…can you guys like…share with me your experience living in America? Are <u>you</u> guys, all of you are from America, or: you are from different countries?

Sean: Ah-no we are all from here I think. So-som-some of them have been abroad and {mayb} some other places though.

P1: um=

CJ: =Yeah, I have been to Australia once.

P1: OK. Can you share with us a little bit of the…of experience that you had there?

CJ: In Australia?

P1: Yeah:↑!

CJ: Oh yeah sure it was super fun.

P1: Was super fun?

CJ: Um People were like super nice. An:d I got to see Kangaroo:s. I've never seen Kangaroos before … I even try Kangaroo like I eat Kangaroo. It was good but it [freaked me out.]=

P1:   [(hh)]

CJ: =Kangaroos are so: cu::te. Right?

P1: Yeah, right. I agree with you. And [why did you-]

CJ: [And they're- uh↑]

P1: And why did you go to Australia?

CJ: Uh I just was there for like a summer: um…like a summer class.

P1: Aha, I understand, OK. And what about the others?

(0.1)

Ed: Well…I went to Nicaragua to do a…like a…like a semester abroad.

P1: Aha↑, that's cool=.

Ed: Emha.

P1: =And how was the experience? Did you enjoy it?

Ed: Um yeah I did. It was: very different though.

P1: Aha, nice. And what about you, Sheen? Sheen or Sean?

Sean: My name is Sean. It's Sean. [I I I haven't been] now for anything like that. I mean I travel but not not studying abroad↓=.

P1:   [Sorry, my bad.]

P1: Like touring?

Sean: =but Maria has…Maria has.

P1: Maria has? OK. OK Maria↑, um where did you…travel=?

Maria: =Uh I've been to Taiwan for a summer program too.

P1: For a summer- where?

Maria: Taiwan↑.

P1: Taiwan and how was the experience?

Maria: (hh) It was good but it was <u>very</u> different too=

P1: Yeah:.

Maria: =like the food was very difficult↓.

P1: And the weather too?

Maria: Um it was very hot=,

P1: Ahum.

Maria: = but it's OK 'cause Florida is very hot too.

P1: (hh) OK interesting. Uh what about you…uh: (Kevin raised hand) yes=.

Kevin: =Kevin.

P1: Kevin (hh).

Kevin: Yeah man yeah. I've never yet done that so I've been here in the United States like-
boring but it's all right.

P1: O(hh)K. Um…OK↓. Uh I have like {several} challenges, and um…one of them for me to to
speak three languages, and to learn actually three languages, um:…which are uh…English
and…Korean, because I am interested in Korean culture. So- I learn a <u>little</u> bit about Korean
language and…it was uh…{<u>diff</u>ikelt}↑…difficult challenge for me but interesting at the {seem}
time. So:: Do you mind guys share with me like one of the challenges that you faced in the past
or…anything?

CJ: Well↑, I mean:…you know Australians speak Eng↓lish,

P1: Hum↑

CJ: So it's not a problem too: mu:ch, but sometimes their accent is really really thick. I don't
really understand whatever they were saying. It was like I just looked↓ at them and I have no
idea.

P1: (showing agreement) um↓…

CJ: And they also used weird words. Like they say reckon a lot=.

P1: Reckon. (hh)

CJ: =What do you reckon? And I am like I don't know what that mean. Like I didn't know. I've never heard anyone used that word↑. But then I like I asked my mom she said that it's a word↑ we use here but we just don't use it that much=.

P1: (hhhhhhhhh) ahha.

CJ: =But what do you reckon, we can say that. And they say…things↑ like…they they make words um smaller than they are. So instead of saying you want a cup of tea they say you want a cuppa↑=

P1: You want a cuppa, um.

CJ: =And I was like what? Cuppa? What's a Cuppa? Like I am so confused right now=.

P1: Ah

CJ: =So I mean wasn't that like learning another language I guess? Was Australian a language?

P1: Um↑, yeah.

CJ: 'cause It's half a grant different ways to talk, right?

P1: Right↓, you are right:. I <u>agree</u> with you. OK↑…ED?

Ed: Yes, (0.2) it's Ed.

P1: Tell me about the challenges that you: faced in the past.

Ed: Sure well when I was in Nicaragua I speak Spanish but… what was very different was um…

P1: yeah↑

Ed: =like real Spanish, because I learn you know you learn from book or recording in class=.

P1: Yeah, that.

Ed: =But when I was there people spoke and they sound totally different. Words were different, a lot of slangs and um, I couldn't really understand all of it but, um I guess it's good that I spoke some↑, it's just very different when I first got there.

P1: um. Good. [And…sh…

Ed: [but there were other things.

P1: Yes. (0.1) Do you…do you have what?

Ed: Wo…uh, there are other things though. Not really related to the language that was difficult.

P1: It's OK. Yeah you can you can share anything that you want. Like, like what, give- give us an example.

Ed: Sure. Um persons- personal space. Like in the united states everybody is very concerned personal space=.

P1: eha.

Ed: =You make sure that you are, you know too close to the others stuff like that.

P1: right.

Ed: But when I was in Nicaragua I think maybe Latin America I don't know=

P1: uhm

Ed: =I haven't been to other places. I should be like::

P1: um

Ed: It's very near because people are very close to you: all the time↑.

P1: Yeah.

Ed: So I was used to try to get by everybody is just there. Um it's kind of, kind of crazy. How it works, well there is no personal space. People don't care=.

P1: Yeah.

Ed: =And these people are lovely. Like everybody is loud, everything is loud. There were a lot of noise, literally like- uh all over Nicaragua there is a lot of noise all the time. So when I came back it's kind of silence. It was quiet sometime.

P1: Hmm: OK. Thank you for sharing. OK Sean? [What about…

Sean: [I don't I don't know] 'cause I've never been to the other places.

P1: mm:::, OK. What about you Maria?

Maria: Uh what was the question?

P1: Um: the challenges that you: face being {abrode}.

Maria: oh well I guess continue with the language. I don't speak Taiwanese.

P1: Ah::

Maria: So I am good with languages but I feel like the Asian languages are so different=.

P1: Yeah.

Maria: =It's kind of hard for me.

P1: It's <u>very</u> difficult. I agree with you.

Maria: Yeah it's very different and difficult so um the language was difficult because not everybody speaks English=

P1: Um.

Maria: =so like when you go to Germany you know most people speak English but like in Taiwan not everybody. I mean some people do but not…it's kind of rare=↑

 P1: right↓

Maria: =So it's hard because you feel kind of lost and if you are gonna order food you <u>really</u> don't know what you are getting.

P1: (hh)

Maria: So we tried to find places with pictures=

 P1: Yeah.

Maria: =But the food is also very different from ours. It sounds very strange.

P1: mmm, I understand. OK↑ the last student? Kevin?

Kevin: Oh you know I'll tell you…I tell you I've never been out…so:: I'll tell you about Florida. (hh).

P1: Yeah <u>you</u> can tell me about <u>anything</u>. Any challenge that [you want], yeah.

Kevin: [Ah↓?] Um I've got a challenge here 'cause I feel like here people are still like: … racists I guess.

P1: Oh really?

Kevin: So I feel sometimes people are weird. But other than that most of the time I feel good:. I like Florida. All my friends are kind like warm and nice.

P1: Um, [nice!]

Kevin: (hh)

P1: OK guys now…um, let's move on to a different topic- I'm going to share with you the culture differences. Uh…I like one reason I like America because of the diversity. And there is a lot of different cultures and different people from all over the world who's living together in one place. And I like it here and um in fact that people accept each other:, uh different religions, different um thoughts. I like that. So um and there's a lot of differences in here and in my country:. We used to have like a strong bond with each others. And people used to live together like I used to live with my mom and my family. And like in the same house. So in the U.S. It's pretty weird, if like, if their own child live with them until they grown up, but in [in my country…]

CJ: [yeah, super weird.]

P1: Yeah in my country Saudi Arabia, um: It's it's normal, and it's it IS the right thing to do. So:, can you guys like share with me the…how do you like, do you like the differences in culture and if you can share um what's of the weird things that you find here in America you can't find in your country or in other countries as well. Let's start with CJ.

CJ: Um like in regards like Australia?

P1: Yeah!

CJ: I guess it was very…I actually was surprised Australia is very Americanized=.

p1: Um.

CJ: =Like…one thing I thought was weird was their food portion, are kinda like American food portion. Everything's big=.

P1: um.

CJ: =I ate a lot of food all the time. And I thought that was very strange.

P1: um↓.

CJ: And:…they can understand our accent very well: because, I guess they say that like most of the world, it's always watching like American TV and stuff=.

p1: Yes.

CJ: =But it was hard for us to understand their accent because I feel in United States people don't really open up to foreigners↑?

P1: Yes.

CJ: So we just want things to be from here:↑. So it was harder for us to [understand them, right.]

P1:   [Do you like the cultu-

Do you like the diversity and cultural differences in American?

CJ: Um <u>yeah</u> sure I like it I mean: sometimes it's a little weird=.

P1: um.

CJ: =I don't know like there are a lot people↓ right now=

P1: Yes.

CJ: =but I don't know like I mean: it doesn't bother <u>me</u>, but some people seem to have like really strong opinions about it.

P1: Yeah. Right.

CJ: They don't want diversity they want everybody to be the same=.

P1: Yes right.

CJ: =I am not sure how to feel about it.

P1: Um, you don't know. Yeah sure. OK, uh…Ed, what about you? Do you like the culture: differences in here in the U.S.?

Ed: It's Ed.

P1: Ed, OK (hhhh) sorry guys I'm bad at names. OK.

Ed: It's all right. So. Well here is one thing that I…I guess I like many things here I like the personal space=.

P1: um.

Ed: =I like the time we could play out very loud. The traffic time that people horn all the time. I guess New York is somewhere else would be different with. <u>Here</u> I I like that. So those things I

really didn't care for in Nicaragua or people were like, being loud or using their horn all the time, or people being near your personal space. And: as far as United states, I've been I've been thinking universities are important, but I also kind of maintaining the:: American culture is also important.

P1: um.

Ed: So I think both thins can be done together.

P1: OK thank you Ed. Um, Sean, you have to answer this question. (hh) OK. Do you like cultural differences here in America the diversity?

Sean: Yeah I like um I think they are very important and they offer lots of different things to:::… the world and to America. So I think they are very important. I like them a lot=.

P1: Nice!

Sean: =I don't really know how it is in other countries, but I hear that in the United States it's very different.

P1: In my country we have diversity as well↑. But most of them from Asia. You know what I mean↑ not from the European or from Africa but most of them from Asia we have diversity in [my country…]

Sean: [Oh here is from everywhere…]=

P1: =Yeah here is from everywhere, yes.

Sean: Europe, yeah, Latin America=

P1: =Middle East, yeah, I agree with you, which is something nice. (0.2) Yeah, thank you Sean.

Maria:::. (hh)

Maria: Yeah↓

P1: Yeah. Do you like the cultural differences and the diversity in America?

Maria: Yeah I actually like America very much and I actually get very upset when people say: the American way or the American life has to be: preserved: because what does it really mean to be American if we're all from different backgrounds and different cultures. so does it mean that you were born here↑, does it mean that your parents were born here:, does it mean you have a passport? I don't think that any of those are the answers=.

P1: Um, right.

Maria: =So I think it is very important to have diversity=

P1: Aha.

Maria: =but most important than having is to be able to be respected and understand the contribution that diversity are bringing to:, um, our world: and to the United States.

P1: um, Yeah right. I agree with you. Thank you so much Maria. Kevin?

Kevin: Oh men yeah. I think um I like I like diversity that's like totally cool whatever. But as you see the problem is most people don't like it. You know what I'm saying? Right now: we got president don't like diversity and stuff=

P1: Um↑

Kevin: =and we don't like other people like once everybody to be the same. but that's <u>impossible</u> 'cause it's like Maria said there is really not there is no such thing as being America. It doesn't make any sense=.

P1: Yes.

Kevin: =You what I'm saying? 'cause like all of us we Americans like it doesn't matter. You don't have to look the same, you don't have to act the same=.

P1: Um.

Kevin: =right? So I don't say those people are crazy you know what I'm saying?

P1: (hh) Yeah Right. Thank you guys. Um I like all your answers. Um OK uh:::… I'll tell you my opinion about American culture specifically. For American culture. I like the American culture. I don't have any um like um I don't have any objections or any uh anythings {againist} the American culture. I like it. But some of the some parts of the American culture is weird for me since I use um I'm not used to it. Um: like when you guys um like for example when you- when some of you it's OK for them to: um: to live far away from their family or when they uh reach a certain age they have to move out↑. This I don't I'm I'm not going to say I like it or I don't like it but I think it's weird↑ since I grow up in, in a country have a different culture. Uh:: but I like- what I like in American culture that people are free to talk about uh their thoughts and their opinions and speak up their minds, which is {some'<u>thing</u>} good. And…can you guys tell me what you like about the American culture or what do you dislike about the American culture specifically. Let's start with Maria first. Go ahead Maria.

Maria: Well, I was going to say that regarding what you said about moving out of the house↑.

P1: um

Maria: It depends 'cause Latin American culture also um children still live with parents a lot longer↑. The same thing with African Americans. They are very close to their family=.

P1: OK.

Maria: =Italian Americans, ah Asian Americans, they also have different ways of doing things=.
P1: OK.

Maria: = I can speak for Latin American cultures, definitely that children stay at home for a very long time, but it's not a big deal like it's not seem as something bad=.

P1: Yes.

Maria: =Um:: something that I dislike↑ about the American culture is that it's very- individual↑, or individualistic.

P1: Enh.

Maria: So there is no much sense of community:. Um, people just kind of look after for themselves↑ only=.

P1: Yes.

Maria: =I really dislike that. Um I appreciate for instance custom service and how organized some of the things are here in the States.

P1: Um, thank you Maria for sharing. Now uh Sean. [0.3] Yes Sean?

Sean: Oh yeah.

P1: Yeah. [Tell me yo-] tell me your opinion…

Sean: [So:::…] What was the question?

P1: uh tell me about uh: your opinion about American culture. What the things that you like or dislike or anything.

Sean: Oh I like everything. It's my culture. I like everything. Everything is nice::=.

P1: Eha.

Sean: =Everything is won:derful. I like everything. I like our food, and celebrations. (P1: OK). I like the things that we do:. I like how we talk to people. Yeah=

 P1: Um.

Sean: =I kind of wish, we donno waste so much stuff. I think north American culture wastes a lot of things, [food,]=

P1:   [like? Ah food]

Sean: =paper, natural resources=.

P1: Um.

Sean: =And if we didn't waste so much stuff we could definitely make a better impact in the world.

P1: Good. Good job. OK. Next, Ed? (hh)

Ed: Uh sure. [So::: yeah I'm kind of with Maria.]=

P1:   [American culture?]

Ed: =I think American culture it depends you know where you are from I think um people from south friends and families maybe a little stronger I am not sure. Um (0.1) I actually like uh in the American culture like you can pretty much do anything: if you work hard↑.

 P1: Right.

Ed: So I like that.

P1: um.

Ed: And::…I guess I dislike when in general I don't know if it is an American culture thing but in general people don't care about others=.

P1: Uhm↓

Ed: =I think the United States does care about the others. That's why our military goes to other countries 'cause we care about them.

P1: OK. Thank you. Ed. OK↑ CJ?

CJ: Yeah: OK↓. So:: what I like:::…I definitely like they have to leave their house by 18 'cause I'm definitely leaving as soon as I turn to 18. Yeah:::

P1: Yeah:::::(hhhhh)

CJ: (hh) And::…I don't like that we are super fat. I mean we are super fat here like people eating disgusting stuff=.

P1: (hhh)

CJ: =And they eat a lot of sugar: and fat: and they are super fat=.

P1: OK.

CJ: =So I hate that.

P1: Um, but um is this a culture? This is like…it's not a culture. I think I think this is social life.

(0.1)   [Like people being fat]

CJ: umm [well I don't know]. It is like…

P1: (talk to herself) [is it a culture?]

CJ: [Is social life part] of culture? I don't know. What is culture? I have no idea.

P1: (hhhhh) Culture is something like um from: I don't- I don't know how to describe it but something like values or norms of of of a country, that [comes from past from years years years ago…]

CJ: [So we value: sugar: and we value: fat: and so we get fat]

 P1: (hhhh)

CJ: That's what we value.

P1: OK OK. I understand I respect your opinion. (hhhhh) Thank you for sharing CJ.

CJ: Sure:::.

P1: OK Kevin?

Kevin: Oh yeah so like:::… something I really dislike…

P1: Um.

Kevin: Actually I disagree with Ed. Some I really dislike is the idea that we have the American dream, which doesn't really exist. Actually like undermines the extremes of the minorities in the United States=.

P1: OK.

Kevin: =I very much dislike that- the majority of the United States wants to- kind of- do away with the history, of African-Americans and ignore uh a lot of the struggles of the minorities and kind of pretend that if you work hard you can get everything when in reality know where shot or at least pretend that you will get everything when in reality lots of people don't have the opportunity to get something you need you know what I am saying?

P1: Oh yeah yeah yeah.

Kevin: So I dislike that I dislike we have these ideas about the United States that are really not true.

(time reminder)

P1: ummm. OK. Thank you guys for sharing your thoughts: and ideas:. And thank you for your time. It's already… five thirty.

Sean: Oh that's OK. Thank you for your time.

P1: Absolutely.

Participant Two

Time: Mar. 20, 2017: 5: 28 p.m.

Location: UCF Teaching Academy, TeachLivE Lab.

P2: Hi class!

CJ: Hi I am glad you are back.

P2: Yeah, hi again. (hh) It's me. Uh did you have: a good time with Nora?

CJ: Yeah we have a good time:. We talked about different things:. It's good.

P2: OK. So it's my turn. It will be little little repetitive but you have to answer me again. (hh)

CJ: OK as long as we can finish on time 'cause we got to go and do like another class with someone else.

P2: Um yeah↓. OK. So my name is Rafeef. I'm from Saudi Arabia, specifically Ria. I- I got my bachelor in me- in marketing from Business Administration: college↑. And:: this is my first time to live by myself alone↑, totally↑. And It's a hard experience for me because I have to do everything by myself, include, [that's include…]

CJ: [Welcome to the real] world girl!

P2: (hhhh) Yeah you know it's hard, the grocery, cooking. I never do that back home. So my parents=

CJ: =who does it?

P2: My:: parents↓. They do:: ah, almost everything in my life. So I have to cook. I have to do grocery. I have to pay the rent. So: it's hard for me. So I want to ask [you now…]

CJ: [yeah bad.]

P2: [Yeah you know…]

CJ: [The grocery shopping…] they will be hard for me too.

P2: Yeah… I want to ask you about your um experience studying at UCF. And where are you from, all of you.

CJ: well I think most of us like grow from here, either Florida, I think Ed is from North Carolina, Maria from Miami or whatever but the rest of us are from Florida↑. But I have been to Australia. Ed has been to Nicaragua and Maria has been to Taiwan,=

P2: wow.

CJ: =and studied there.

P2: Oh she studied at Taiwan. Um::…so you have a lot of cultural experience.

Maria: Yeah I did that in summer… class in Taiwan.

P2:   different from US?

Maria: Oh yeah very different.

P2: What is what what what do you think that's find <u>so</u> different?

Maria: Well, everything the language the food, and it was super clean, but you cannot find trash cans. It was very strange=.

P2: =what it's clean and there's no trash can?

Maria: Yeah.

P2: Where do people throw the stuff?

Maria: I don't know but I think maybe they take it home.

P2: (hhh)

Maria: They are very respectful.

P2: OK. Are they kind?

Maria: They are very kind very nice. Even when they didn't speak English, they would come and try to help us↑. They were very nice but not not a lot of them spoke English, and you know I don't speak, Mandarin either, you know, Chinese, Taiwanese, yeah.

P2: Yeah like Korean people. I've been to Korea. They are <u>so</u> nice. They ca- they trying to help me: even if they can't speak English. [They-]

Maria: [Yeah.]

P2: Yeah.

Maria: That's so in Taiwan too. Do you think people here are equally as nice or not so much?

P2: Um:::…I love Orlando. The people here are so nice↑. They are friendly↑. They're smile-like too. They- they want to help you. Uh:: uh the last spring break I went to Chicago. People are little different. They don't smile much. They don't- they don't offer help, like here.

Maria: Is that because of the big city?

P2: What was that?

Maria: Is it because it's a big city?

P2: Maybe::.

Maria: People will just be less friendly.

P2: Yeah but I think Orlando is a major big city.

Maria: Yeah, not too much. It's kind of like a spread out town, but it's not really a city like Chicago or New York.

P2: Yeah. People there are not that much friendly. So I love it in here. I love UCF student I love UCF. They are so respectful and friendly. They are active too.

Maria: Oh that's so nice because a lot of people don't have that experience, especially like if you have a head cover.

P2: Really? They hate it here?

Maria: No, I don't know here, but in the United States, I know so many people are: protesting you know…

P2: Yeah yeah. [And other say some…]

Maria: [other cultures and religions.]

P2: Yeah. Some other states are so um:: racist. They hate other religion yeah.

Maria: This this part of Florida is very open minded. If you go north or south before Miami they won't be as nice as here=.

P2: =Really? What about Miami? 'cause I am planning to go.

Maria: Miami yes is very multicultural.

P2: Good. Nice. So anyone has:: experience {abrode}?

Ed: Oh yeah oh yeah actually I spent a semester in Nicaragua.

P2: Nicaragua. Where is that? Africa?

Ed: It's…no, central American.

P2: Next to {Mekecik}?

Ed: Yeah below Mexico.

P2: Oh you went there last spring break?

Ed: Well, I went to for a whole, um, half a year.

P2: O::K. You study there?

Ed: Oh yep.

P2: Good. What did you study?

Ed: I just uh did a like an exchange. So I went to school and took classes over there at school.

P2: Um. Good. Uh what else- anyone?

CJ: Oh yeah I went Australia↑ for a summer↑.

P2: Um. Study or just vacation?

CJ: Oh I went there to study, yeah. It was like a summer class.

P2: Wow. Most of you studied {abrode}, but=

CJ: =Just three of us.

P2: Yeah Yeah. That's that's great, actually. Um:::…so:::…. (0.4) Do you have any challenging? Do you have any challenge during that period when you study alone?=

Ed: =Oh I did, I did because I speak Spanish but it was very different once I was there, like the slangs, what people said, it's just super different.

P2: The language↓.

Ed: The language was hard. Um Latin American people their personal space are very different from ours in America. So::=

P2: =They have more or less?

Ed: Oh very much less.

P2: Yeah. (hh)

Ed: In the United States we keep personal space all the time but in Latin America I guess Nicaragua not at all. They are like on top of you all the time. It's quite weird.

P2: (hhh) Yeah:: I noticed that. Here in US, uh lot of people like to be with {themself} and they can travel alone they can eat alone, and: we don't have such thing in our country. We love to be around people=

Ed: =They don't have that in Nicaragua either. People eat with other people all the time [as it is important.]

P2:   [Yeah yeah.] I think this huge different. Yeah I can't imagine myself travel by myself. I came here with my friends Norah… from our country. Yeah.

Ed: I hear it's a good experience you should try travel on you own.

P2: I I don't think I'm capable to do it because I love people. I can't just sit by myself in my room.

Ed: Oh yeah you are right but you won't be on your own. You'll meet a lot of people in the travel. That's that's what my mother says. It's true that I have been I went there by myself. I met a lot of different people, including the people we were doing in the class, so=.

P2: =Oh yeah yeah you have your classmates.=

Ed: Yeah.

P2: =So basically you are not alone. But imagine if you want to travel to some, any country for seeing… anything…can can you do that?

Ed: I think I will do it. Yeah I think I will be fine=.

P2: =Wow by yourself.=

Ed: =When I want to go to an area for…so yeah all by yourself.

P2: Wow. I can't do that. All of you? All the class can do that?

(0.3)

Sean: Well…

Kevin: (hhh)

P2: (hh)

CJ: (hh) I don't know↓, but I am guessing yeah↑? Just because I'll have fun to have an adventure, go on your own, see the world:::. That's all super fun.

P2: What about you Kevin. I didn't hear from you.

Kevin: Oh man I haven't traveled very much. So I'm little I've got no idea. But I am assuming it will be a little weird to be on your own.

P2: A little weird? (0.2) Yeah I agree with that.

(0.2)

Sean: Um um I don't know. I think I would be a little nervous to be on my own actually. But it it's possible I suppose=

P2: =It's possible.

Sean: I don't know how much I would like it.

P2: Yeah, but it's possible for you. What about Maria?

Maria: Oh definitely, yeah. I'm looking forward to traveling on my own.

P2: Yeah I can see that. (hh)

Maria: I think it's the best way to travel. When you travel on your own you don't have to worry about other people, or try to make up plans with other people.

P2: Uha.=

Maria: =You just do what you want, and you can meet people along the way.

P2: Yeah you're right to that. Um:::, OK since you all of you uh native speakers and native citizens uh do you like the multicultural going on in the US?

CJ: Yeah, I don't mind it. I mean, I think some people say we need to preserve: our American culture, but I don't care. I think it's fine, whatever. Everybody can do what they want.

P2: So you are OK with the everything.

CJ: Yeah.

P2: Good. OK. Kevin?

Kevin: Oh no man no. I I I don't think there is such a thing about uh preserving the American culture. I think that's a lie:, because American culture is mixed cultures↓.

P2: We are.

Kevin: We can't preserve something that is mixed. You know what I am saying? Each culture has to be preserved on their own and together. But when people say stuff like that, I think it's messed up. When they say that oh the American way the American cul- that's like such a lie because it's just ignoring African American it's ignoring uh Latinos it's ignoring all the minorities in the United States. You know what I am saying?=

P2: =But you can together as an American. So you have to [save other culture…]

Kevin: [yeah yeah]

P2:   [because American place in diversity…]

Kevin: [Yeah we do we do…] Yeah we do but like…think about it if I tell you you have to take off your head scarf you have to be the American way. That's a lie because people that: are Muslins are also part of the United States.

P2: um.

Kevin: You know what I mean? That's what I am saying=.

P2: =So part of the culture respect other cultures.

Kevin: Yeah yeah that's what it got to be. But it's not our way. You see a lot of people don't like other cultures they want things just to be one way. They want things just like what white people do them, nor any people like us of color.

P2: Um, and Ed? What do you think?

Ed: Well I actually disagree I think there is an American way. Um… I get a little worried we have too much diversity because then: I'm not really sure we can really keep the culture going. So, this is a Christian nation, you know the Christian nation, and, people just speak English and, I mean of course you can talk some people embrace diversity but without losing what we already have.

P2: Um OK. Sean.

Sean: I, I think diversity is very important. It It gives a lot to people and to the world and it gives a lot to contributions in general to the world in the United States.=

P2: Aha.

Sean: =So we need diversity. I don't know what people are afraid of. We can feel that they are afraid of something, but I might be just people don't want to lose their power.

P2: OK. Maria.

Maria: Um I kind of agree with Kevin. I think that diversity is great but sadly we are living in a country that doesn't really: accept diversity↑. They want people to quite accord a simile, and they want people to leave their culture behind if they want to stay here. And like Kevin said, that's a lie because they are asking you to become something, ah…

P2: you are not.=

Maria: =that the people with power but not who you are, but you are part of the United States though. It's stupid not to want to recognize that.

P2: Yeah, some people don't accept it but I think the majority of the United {Stat} accept the multicultural thing, and they are getting along with it, in good way.

Maria: I hope so but like:: with the current presidency I don't think that's the case.

P2: Yeah, a lot of things changing, but hopefully. So I want to ask you do you agree to marry someone has totally different culture than you? From other place?

(0.5)

Sean: Oh I just have something to say because we were scheduled before 5:45 and we have to go to another class.

P2: Oh yeah OK.

Participant Three

Time: Mar. 24, 2017. 1: 13 p.m.

Location: UCF Teaching Academy, TeachLivE Lab.

P3: So have you been like…outside↑ United States?

CJ: I have kind of- I went to- I went to England, Canada, which is like really really really really far off in Canada. And:: I really like it. You know, it's pretty, It's kind of like in England. And I thought it's cool. Everybody got so polite you know. Have you ever been to Canada?

P3: Yeah, just once, it was like a vacation↑. So:: it's just {chort} time.

CJ: Yeah I wasn't there for very long either. It's just like a month. Uh::=

P3: =OK. You were:: you were like studying or just vacation?

CJ: Oh yeah we were with my family. I got family up there:. I would want to visit↓. I'd never visited them because I was always down here. So::, yeah.

P3: So you are…what are you from?

CJ: Ah: I'm from Georgia, but I live here most of my life.

P3: Ah::: OK.=

CJ: =And here in Florida. Uh::

P3: So you are living here alone?

CJ: Am I what alone? Sorry living alone?

P3: Yeah.↑

CJ: Oh no no no I live with my family. I am not old enough yet=. (hhh)

P3: OK

CJ: =I cannot wait to get out of the house though, you know.

P3: (hh) OK. That's great.

CJ: Yeah like- yeah so you know I- one thing that is really kind kind of weird about Canada is that it has signs like in French and English. And sometimes I don't know who is going to speak what 'cause you can technically speak both, you know instead I was just kinda…

P3: (hh)

CJ: like different to adjust to, right?

P3: Yeah, I know.

CJ: Yeah.

P3: OK. What about you guys?

Sean: Oh I have actually never left America I would love: to. Where have you traveled to?

P3: (confused)

(0.2)

Sean: Ah ah I spoke with you hello.

P3: I I I didn't understand. Could you repeat please?

Sean: Oh I can. I am sorry sometimes people can't understand me.

P3: (hhh) That's OK. It's my problem.

Sean: It's harder with the laughter (hhh). Uh I I have never traveled outside the United States↑.

P3: OK.

Sean: Uh:: but I would like to. Where have your been?

P3: OK. Um: I have been: a lot of countries like um Europe↑ like France:, Italy, Switzerland:,

also South Africa, and all of them in middle east you know like Dubai↑, Kuwait↑, Jordan↑. Uh:

also Canada. Uh: what else…And Mexico=.

Sean: =What did you think about Canada?

P3: Excuse me?

Sean: What did you think about Canada?

P3: It's good. It was good. Uh, actually I was visiting my brother. He's a::… working there, as a

{dictor}.

Sean: Oh.

P3: Yeah so.

Sean: What what have you noticed that there is different from where you live and when you were

over there? Uh what is it like a big thing that you have to get used to?

 P3: Uh actually {tha} {weether}. {Tha} {weether} was so cold but in my country so hot. Yeah.

Sean: Yeah. (hh) I would assume I bet the temperature difference of Florida is more probably more used to. (hh)

P3: Yeah actually Florida's similar quite similar to Saudi Arabia. Yeah. So what about you Maria?

Maria: I uh I recently went to Tokyo=.

P3: Ah.

Maria: =And:…I loved I thought it really neat. It's a lot of…it's so it's so vigorous, and colorful.

P3: Oh.

Maria: And there were so many neat-…uh so many technology over there. Have you ever been to Japan?

P3: No, never. I would <u>love</u> to.

Maria: Yeah, there, there lot different. There were lot difference [over there…

P3:   [How about the food there?

Maria: Oh the food?

P3: Yeah.

Maria: Actually I like the food I really like.

P3: oh

Maria: Everything is very colorful they prepare it=.

P3: OK.

Maria: =And: and very artistic way, well all specially compare to the shapes of things but because Tokyo everything is so expensive, you know.

P3: Oh.

Maria: Yeah so I am like- oops sorry. Here in America you you you can pay four or five dollars for a plate or tray. But there they cut them into special shape and be really expensive you know.

P3: Yeah OK. What I feel is like um um um I… OK I forget the word. So:::: OK, that's interesting↑. What about you Ed?

Ed: Oh I got to be in Columbia about a year ago, and I I found a lot different peoples- it's- they are so different over there you know with a- for example here you know it's hard to get public transportation anywhere such as in Florida. But over there you've been easy to pop along with the public transportation. They…you don't need to go to a bus stop for it. You can just stop on the side the road.

P3: Oh.

Ed: And keep your arms out and they will take you on.

P3: (h) that's so comfortable.

Ed: Yeah it's it's really nice. Do you have a lot of public transportation where you are from?

P3: No: no. We just have cars↑. Yeah it's similar to Orlando.

(0.2)

Ed: It sounds like where you are from is a lot like Florida if you know what I am saying. (hh)

P3: Actually I used to live in France↑. Um it's it's so comfortable. You can go anywhere you want↑, like anytime you want↑ because of the transpo- the transportation. It's so…yeah you feel like so comfortable. But here unlike I have to stuck with my husband: because he has a car↑.

Ed: um

P3: So yeah that's make a different. It's makes a different.

Sean: Oh yeah yeah you know. That's public transportation. I use the stuff but I don't know. You really need it if you ever you have a car↑ uh uh I don't know.

Ed: Sean actually it's hard for all people can- you know, have access to cars to get around so I think it's very helpful. What do you think of it? It's- it's not having a car, or just heavy to have a car for you:, if you just like have more… transportation options?

P3: Uh I prefer to um (0.1) like they have a lot or more of transportation. It's more comfortable. I don't have to stuck with my car and walking: and to pay everything like a gas and you know. So. It's going to be more… really.

Ed: Yeah I see what you are saying, by stuck with the car is is… Cars getting expensive. I've heard it's in Chicago and they have plenty trains options too so That'll be nice to have it here.

P3: Yeah, yeah it is. So and you Kevin

Kevin: Yeah I I've never been outside the United States.

P3: Oh.

Kevin: Uh Yeah: uh but I always want to go I know what it is like a lot going on right now. but I always want to go to release… myself 'cause right now the weather is really really hot (hh) you

know boy you know it's cool like architecture stuff. Like what do you like like out in your home? What what kind of stuff, do you want to do at home?

P3: Um…ou mean my country? Or…normal like um um middle east because it's quite different like in Dubai: there is a lot of activity you can do. Um::: you can- it's kind of international city- uh country Dubai but Saudi Arabia it's like you have to know someone there to get in the {caliture} and you to know the {caliture}. If you don't you actually- I think you are not like uh enjoy it.

Ed: So it for uh…it for uh for Dubai it's a lot easy to fit in?

P3: Yeah. Because um in Saudi Arabia you have to get some {fisa} and it's difficult to get it. You have to get like some job or religion reason, you know, so.

Ed: Yeah I can hear you so you have to get a job: or like- you know like- if people I guess if you don't fit into the religious reasons like people didn't like- do ever like people treat you different that kind of reasons or….

P3: No no no no no no no no no no no. But it's like a for safety reasons. They don't allow to everyone to get into Saudi Arabia. You have to:- yeah. But in Dubai it's more It's good for vacation. And to see the culture…it's more urban you know. Yeah so.

Ed: So what would you say would be like.. the biggest difference between- like Dubai and Orlando like- what do you like- just to like 'cause Dubai is a big city Orlando is a big city but like what do you think the biggest difference in all you know?

P3: Uh I feel like Dubai everything in Dubai is fake↑. You know the :, the beaches: everything is they made it, but in Orlando everything is real↑, and natural↑. And…

Ed: Oh it's funny that you say that 'cause a lot of people say that about Disney you know.

P3: Yeah I know.

Ed: It is really big.

P3: Yeah but everything like except↑ Disney. It's real.

Ed: Yeah I I hear I hear you.

Sean: I heard Dubai has a a lot of theme parks and: hotels stuff like that. It's kind of like old Disney land in a way.

P3: Yeah. Actually Dubai is kind of {lukcery} city country if you love to be in a {lukcery} city vacation, like {lukcery} city hotels, malls you know the shopping and stuff. You're going to enjoy it. If you are not↑, if you are kind of uh if you love like na…natural things and: you know yeah it's not good for you.

Sean: So it sounds like aww::there isn't like a lot of environment out there maybe? It's just buildings and stuff?

P3: Yeah. Yeah it is.

Sean: Yeah Yeah

(time reminder)

P3: So nice to meet you guys. I enjoy my time with you. Thank you so much:.

Participant Four

Time: Mar. 24, 2017. 1: 25 p.m.

Location: UCF Teaching Academy, TeachLivE Lab.

P4: Hello.

CJ: Hi:.

P4: How is it going?

CJ: Good, Ladia, Ladia right?

P4: What?

CJ: Is your name Ladia?

P4: No, my name is Gahdeer.

CJ: Oh sorry. I am sorry, (hh) I was uh…yes you said it before.

P4: That's all right.

CJ: So what's up? What's going on?

P4: Nothing much. What about you?

CJ: Aren't we going to talk about travel? Or country stuff?

P4: Sure. What do you want to know? what you want to talk about exactly?

CJ: Well, where have you been? Where have you travel?

P4: Oh I traveled a lot of places.

CJ: Oh like where?

P4: I've been to Malaysia:, been to um well…I've been to Thailand. I've been to…I can't quite recall at the moment, (hh) for some reason.

CJ: Yeah, I hear you.

P4: How about you?

CJ: Yeah I I I have been out of United States and Canada. Um you know like here and Canada. But um…I I found that there is kind of- like a lot of- even though we both speak English in both countries, there are some there's a lot of differences which between: American and Canada↑.=

P4:   [like culture?

CJ: =[yeah it takes] some time to get use to right?

P4: Like cultural differences?

CJ: Yeah, and like one of the big surprises to me is that Canadians are so <u>relaxed</u>. They are like they leave their doors open and stuff. I just I couldn't get use to that because- like American you won't feel safe right?

P4: Yeah.

CJ: So:: so like when you travel to Thailand, (0.1) how…did you find there are a lot of difference from where you grew up and what you're use to?

P4: I can't recall because I was like I was a little kid back then, so really didn't pay attention to- like cultural differences.

CJ: So:::... when you got- when you grew up, what do you think like the biggest, the biggest- uh the most different place that you went to from what you are used to. What was that like where was that?

P4: Actually the States, like here=

CJ: Aha.↑

P4: =is quite different from back home, but, um: like in: my country, they stick to traditions like traditions is something that very very you can't change that.

CJ: Yeah like what kind of traditions.↓

P4: For instance, like, um, in our country like patriarchy exists.

CJ: Yeah.:

P4: Yeah and it's like a big part of like like culture. So like the father is like man of the house or if the father dies- like the eldest son or even the son it doesn't matter how old he is. He's like the man of the house. You take supposedly takes care of house. And I just like that. And it's far different here.

CJ: Yeah like so::. We kind of have that here. That's kind of you know people thought for a long time with you know like the guy goes and has a job and woman stays at home you know look after kids and stuff. Now things are just like changing. What do you think about that?

P4: I feel like the US progresses like faster than Kuwait.

CJ: Yeah. Yeah.

P4: Yeah I know that all traditions like die hard. But like- yeah it doesn't progresses like quick as here.

Ed: So you like very traditional family structure:. You feel it's stronger 'cause I actually prefer that that how it is at my house or a lot of people who feel that. What do you think?

P4: I don't like stick with tradition. I mean it's good to have like tradition like culture↑. It's just it's not necessary to stick to it.

CJ: Yeah right like- because- like you want- how are you different? I- you know I agree with you. I think women should be able to do what they want and shouldn't have to- you know be moms or… whatever like how how do you want to change things?

P4: Like in Kuwait, if woman passes like the ages of let's say 25 and no one proposes to her, she is like- she probably has to think OK something wrong with her, like she has to get married, you know. She'll [she'll=

CJ: [What?

P4: =exactly- feel bad about herself, yeah.

CJ: Wow.

P4: Yeah so I would like to change that. I mean I won't want to get married unless like I finish school if want to=.

 CJ: Yeah right.

P4: =I like that.

CJ: Yeah.

P4: Usually they think girls like- should have kids, and it's you know it's like- it's you are supposed to have kids, but I myself don't want to have kids when I grow up and that's weirdest. And apparently no one wants to marry someone who doesn't want to have kids.

Ed: Doesn't- don't all women want kids?

P4: Oh (hh) not really.

Ed: I I I thought probably all mothers want- every woman want to be mothers

CJ: Uh no not really. Some people want to want to have jobs and stuff↓. Right like what do you want to do? Do you want to- like a teacher or what?

P4: I want to pursue a career in my uh::…veterinary medicine↑=,

CJ: [Oh like you don't..

P4: [hopefully.

CJ: Sorry go ahead.

P4: I just said like hopefully.

CJ: Yeah hopefully.

Sean: So are you going school right now: for that or you are going to be a doctor?

P4: Well for now I am actually just studying um like English↑. Hopefully when I like get admitted into university. I'm going to study biology↑. And then if I think I can go from medicine, I will.

Sean: Wow that's that's that's a lot- that's really ambitious. Wow that's really cool. I I so that's what I am really thinking how cool about America like- you say that you know you don't have to be defined by… you know what other people want you to do, right?

P4: Yeah.

Sean: Yeah like… what are- what are some other like differences. 'cause there are people in America who still think that. You know I should be dad and in charge of everything: or the man of the house like. You see that changing in Kuwait?=

P4: Well uh…

Sean: =in all of the [important pur...

P4:   [It's starting↑ to? Like people are trying like- like uh instead of being constricted in that like bubble like that thought↑, like people are changing like now. I see uh um I only met like- like a handful of people that have that mentality really, you know we shouldn't fall into tradition just because you know…

Sean: Um. (0.1) Like here?

P4: Yeah.

Sean: So like- what do you think is the most like important thing about- like what do you think if you can say- what makes- what's what's the most important thing like being here in the country you think it's so different like who you are now?

 P4: I I don't get what you're asking exactly.

Sean: OK like- ah that's my fault like I'm not I'm not expressing that right sorry I apologize. Um let me put it simply. Uh OK so like you are here you are changing something that's cool: like you are doing your own thing right?

P4: Yeah.

Sean: Um, like what do you think about the people who don't want to change. What would you say to them like- you know because you know this like child thing like everything there's a lot of people who don't want to change so like you know how do you like adjust it to them, [you know.

P4:   [I mean like It's OK if you don't want to change. I respect that. It's your choice to each of them you know. But…

Sean: right.=

P4: =You got to respect other people as well. Other people still you can't look down upon them because they're different.

(0.1)

Sean: Yeah yeah. Absolutely yeah. That's probably the co that's one of the cool things here because like most important thing you know. It's getting to be your own person, right?

P4: Exactly. It's [personal business…

Sean: [Yeah, like you…yeah it's like it's like one of those things American started on you know. Um I think it's probably the most important thing.

Maria: I I disagree↑. I think the most important thing is actually well I mean autonomy is important but I think diversity and making sure that everybody's voice is heard: like be more uh uh pressing issue. Ah what what do you think about that?

P4: Uh I don't quite understand.

Maria: Well well it's important because like like you were saying it's very important absolutely, to have your own choices and choose when to get married, not have kids. Uh I think it's more important maybe: to make sure that everyone has those opportunities that everyone is represented, you know, whether they are: Latino, or Muslin, that's almost as important if not more important… [so what do you think about them.

P4:   [Yeah I agree with you, I agree with you.

Maria: Yeah yeah. That's that's really great. So what are- what are things you miss about back home? Like how- how differences once you got home where you from?

P4: Uh like, can you repeat that? Sorry.

Maria: Well there is something that is different from where you grew up that: maybe- you miss compare to the you know.

P4: Um. That's a good question.

Maria: Or or or not. (hhh).

(0.6)

Maria: We love to answer your questions too.

 P4: So: what do you think like about like the American culture?

Maria: Aha?

P4: What's your observation about American culture?

Maria: Is there anything specifically or:, just.

P4: No, just general.

Maria: In general?

P4: Yes.

Maria: Uh I think that's wonderful: that we have a lot of freedoms. But I think there is attitude shift in this country we are in in danger of losing personal liberties… falling away.

P4: What about you- what about you Sean?

Sean: Uh, I agree with Maria. I I with a with the a courage uh state of uh people in charge of our country right now, we are in danger of losing our arts, programs you know. I don't know how important the arts are to you uh a lot of us uh it's very important. And I feel that that making cuts to those is a bad thing and so people are taking away our freedoms to you know to express ourselves. I think that's bad.

Ed: Oh I don't necessary agree with that. I think the most important thing is we are safe, and someone you know use the cut so we can have a strong military than it's important that we say multiple progresses, it is more important than our personal liberties.

(0.4)

Sean: I I really don't agree with that Ed. What what do you think?

(0.6)

P4: What?

Sean: What do you think- what what do you feel is more important?

P4: Uh can you say what you said again?

Sean: Uh: Ed would say that uh have personal freedoms- but not as important as uh: like the government watching everything we do, because he thinks that it's OK not to have any freedoms 'cause it keeps us safer.

P4: Well I think that the freedom is important.=

Sean: Yeah

P4: You know you cannot have rights and freedom and still like be safe. [It's hard to do both.

Sean: [uh uh…

(0.3)

Ed: Yeah but if the government only want to the best for us you know they they they they eliminate about outside threats, and if they have to look at my email, I don't have anything to hide.

Maria: Actually, Ed. That's you know you starts to give things up your personal liberties your privacy… you know it's a slippery slope because- you what I mean how far is that going to be install camera at every street corner?

P4: Yeah I think like safety but was like um… it's OK to be safe but- but up to like certain like you know level. You can just go like beyond.

Maria: Right so where do you think that line is?

(0.2)

Maria: What- what do you think like what do you think is fair:- or a like how much rights shall we have? What do you think it takes to keep us safe for? Should we like um…

(0.1)

(time reminder)

P4: Um gah, I will give that a thinking. Well nice meeting you guys, sorry but I have to leave.

CJ: Well it's great talking to you.

P4: You too.

CJ: All right. Have a great day!

P4: You too. Bye bye.

Participant Five

Time: Mar. 24, 2017. 1: 42 p.m.

Location: UCF Teaching Academy, TeachLivE Lab.

P5: Hello class, how are you?

Sean: Oh hey, how is it going?

P5: I am fine. A little starving. (hh)

Ed: (hh) Yeah yeah I cannot wait to have dinner already. Yeah I am hungry too.

Sean: What's your name again?

P5: Mm…Marialicia. My name is the combination↑ for two names↑, actually Mary and Alice↑. Mary Alice is in Spanish is Maria Alicia.

Sean: Uh it's really pretty, like a nice name.

P5: Thank you thank you.

Sean: Cool.

P5: OK uh I am going to ask uh something about um:: my experience in the UCF↑ um::… so far↑ um is… wonderful. I chat with uh: people from different country. Um: I learn uh some words:↑ as in uh Portuguese, France, Arabic. Um well I improved my {Englis} a little↑ (hh).

Sean: Ah you improved your English↑. Well where are you from?

P5: I come from Venezuela↑. Spanish is my native language.

Sean: Cool. So I- your- uh how long have you been in Florida?

P5: Uh…I've been here for:: uh…seven months, more or less.

Sean: How how is it different? What's- what the big thing what are the big differences you've noticed?

P5: Uh well um… is different: uh: my country the culture maybe the culture is the uh the most {differenty} because uh there we meet with the family a lot↑ uh with my mom or my ol- older uh brother: and sister. Here people live to to work. Every day at work at work at work (hh), is is is different. Um people here like uh buy something, buy {arctical} little different go to the restaurant. In my country, people usually meet um the {clooks}, some {clooks}?

Sean: Yeah the clubs, that's cool.

P5: Yeah they will find a pool, different {spor}: like tennis or, and you can chat with little people: um go to the restaurant that is cheaper in the outside the {clook}. But I like it. It's the amazing experience. Very good. I like it.

CJ: Oh so I here you go out more:, and you get to you get into like United States stuff more. (hh) but so you go out more but over there you spent more time with your family? And that's what about?

P5: Yes, yes.

CJ: So it's more…there is more I guess family time …

P5: Yes yes.

CJ: In Venezuela than here. It's more um like what…

P5: Yes, actually the family the children they stay with fathers uh when the children are all inclusive. I have a friend↑. She have three three boys↑. Um two of these boy have uh girlfriend, one have a one is 31 and the other is 27. (hh) And they live they still live with the…her parents. No no don't like to go outside the house because the house have the food, the the the clothes clean. And here people go::…like go uh {airly} to live alone with other young people or alone in other apartment. This is maybe it's the little different.

Ed: So people stay in their families more::- is more traditional?

P5: Yes, it's more traditional. Yes yes.

Ed: I like I like that. Because you know everybody here is alone, and, uh…

P5: Yeah yeah=

CJ: =I don't know that. I kind of like get out of the house as soon as I can, graduate from high school, you know, get a job.=

P5: =Yes.

CJ: And get out. Like, I think I think that's more important. I think it's independent.=

P5: Yes!

CJ: =What do you think about that?

P5: Well I think it's different: uh in different culture. Ah it's important- I think it's important for people they independent so: uh take care uh own life, her her uh: it's good for lair life. It's good,

it's good. But not so young but not too old. (hh) Maybe after finish the school. It's good it's time to move away from the family.

Ed: So you don't miss, you don't feel like, you have less of bond to your family because- uh I mean- do you- how how does your family work. Do you do your kid live at home with you or?

P5: Yes yes.

Ed: So you think it's important to keep your family going.

P5: Who are you have been uh abroad?

Maria: Uh I have.

P5: What is your experience?

Maria: I went to Tokyo um last year↑, and I thought it's beautiful, and they have a lot of technology and faster internet. And it's very different way of doing things over there. It's a lot more polite than here.

P5: And you like it?

Maria: Uh I do. I do like it. Uh I think it's interesting it's overwhelming. In Tokyo it is so over crowded. There are people everywhere=.

P5: Yes.

Maria: =But, but on the other hand, they don't have, like New York, they don't have trash bins= trash baskets, so you have to keep litter with you, and people don't just throw it on the ground. They they keep it with them. And I think that reduces the waste and shows very respectful to the environments. Have you noticed any differences like that when you travel?

P5: Uh I am sorry I didn't listen to you. The last…

Maria: I was asking have you noticed any differences like that, when you, when you travel?

P5: Yes yes, um…[different…

Maria: [What kind?

P5: Ah:::… Well for example um um in my country↑ there are many uh {pooblic} transportation↑, or like ordering Madrid or Espano. Here is usually you don't find {boos} everywhere. The people he lived here↑ need a car, or moto to any- any place. And another city you find a {poobulic} transportation like bus or something.

Maria: Public transportation is very hard…

P5: Yes, here this different. Yes. Uh…

Sean: Well sorry I just want to say we do have to go to we are about to go to lunch in five minute, so it's time for us to go.

P5: OK thanks we can finish.

Participant Six

Time: Mar. 27, 2017. 5:12 p.m.

Location: UCF Teaching Academy, TeachLivE Lab.

P6: Hi everyone. Um I am going to talk about my…my experience of living in America or studying at UCF↓. Uh at beginning it was not an easy experience because uh: I am coming from really different uh culture↑. I'm from Saudi Arabia. And the…I uh: find some difficulties here in the beginning- I was depending on my parents and my country but when I come here I have to depend on myself. So I have to find- beginning an apartment for myself. I keep uh: looking: for uh about a week↑, because uh I arrived here in August and all the apartments are full. Uh:::…

Sean: Wow.

P6: Also uh::…I had to pay for everything for myself and::… uh (0.1) also the language I also have difficulties in language because my language is very weak↑. But everything went good at the end. Uh…

CJ: So you found an apartment?

P6: Yeah I found. an apartment.

CJ: Do you like it?

P6: Yeah, it's very comfortable, and in uh in a safe place.

CJ: Good, good. (soft)

P6: Is any one of you have been study abode? (0.1) Or no?

Maria: I went to I went to Tokyo last year↑, and I would like to know have you ever been to there?

P6: No. I wish. I love Japanese people. Really I love them. (h)

Maria: They are really great. There is a lot different than you know↑…so, how do you, how do you like living in America. I am sure it is very different from Saudi Arabia.

P6: Yeah.

Maria: What do you think is the biggest- the biggest like culture- shock is, 'cause I know it was really really different going to Japan and spent time there.

P6: Um I think maybe the food is different↑ because food is very important. It's the most important thing. Also because we are in Saudi Arabia, everything uh the men and the women were separated in school: and: hospital and everywhere. So when I come here, I have to…study with with them. I have to face a lot of mens so that makes me a little bit nervous. But it's OK. I am used to it, now.

Maria: Um do you do you think is it a good nervous that- you do to like challenging yourself↑, explore the different- environment or stuff?

P6: Yeah I think. It's a good thing to improve my personality and, I can gain you know, uh: many skills that help me.

Sean: What is your favorite place you have ever traveled?

P6: What?

Sean: Where where is your favorite place you've ever gone to. Where where where of you like visiting most?

P6: Uh::…I think:…Last year I've been to Turkey. Yeah I think it's the most favorite place for me.

Sean: Wh- what do you like about it? I've never been to Turkey I have never been out of United States.

P6: Oh the whether is good. It's beautiful there uh: um the city is is know you is combined with history and modern↑, uh culture so. Also the food. They have the best food in the world. You should go and try it.

Sean: What is what is your favorite food?

P6: Uh::… their ba- barbecues, like kababa and shishidawu. Also their dessert↑. It's it's really good.

Sean: That sounds delicious. I like barbecues:. It's really so good. It's awe:some. That's all delicious.

P6: OK. You should go there.

Ed: Yeah you should go there. Uh have you ever- gone to South America? Like Columbia?

P6: South America? No. I've never been there. But I have a friend. She is from Columbia. She said it's really beautiful country, especially the capital city. I think it's called Bogota. They have a lot of beautiful landscape there.

Ed: I got to go last year. I got to Columbia. And you talked about food now remind me I had uh there are really good food. I like everything. They are colorful. Often there is a lot of different appearance. It's <u>pretty</u>. Apparently you know, they have Perscado Frito and a lot of different things, especially the way they do the fish. I love- I love that.

P6: OK.

Ed: A lot of different things were there. Um, like one of the most interesting things was- 'cause you know- how how long have you been in Florida? How long have you been here in States?

P6: Uh since August. So almost seven months I guess.

Ed: So do you have your own car?

P6: Yeah.

Ed: Do you use transportation buses?

P6: Yeah I have my own car.

Ed: Good. 'cause here you very much have to right?

P6: Yeah.

Ed: Yeah I understand that. Columbia is cool because they have they have buses everywhere, and you don't even have to wait at a bus stop. You can just be alongside the road and they'll stop for you, which is incredible 'cause you don't have to have your own car and here you have to travel [with it everywhere.

P6:   [OK. Yeah there is no transportation here. I think because because of the roads, it's everywhere so.

Ed: We have our own bus system but it's not very good. It's not very good.

CJ: Yeah it takes forever to get the bus here because like they have Sunrail↑ but you have to get to Sunrail to get to places say you don't have a car. So:: that kind of… you know that kind of hard. Do you have a lot of public transportation in Saudi Arabia↑?

P6: No, it's almost the same here. Most of the people use the car to move↓ from place another. And also…the the buses there…sucks, what?

CJ: You says the bus sucks over there too?

P6: Yeah.

CJ: Yeah (hh) it's pretty bad here really. Have you ever been to Chicago in the United States? You went through Atlanta, have you ever been to Chicago, Illinoi?

P6: No, but I wish. Yeah I wish to go there.

CJ: Yeah they have really good public transportation because they have buses everywhere and they have trains above and below ground. So you don't you don't even need a car. It's like the best.

P6: OK.

CJ: Well I went to I went to Canada like a year ago. Um:: they are pretty much like us too right? They don't have a lot a LOT of public transportation but it still has buses there. But they have poutine, which is- have you ever had poutine? It is like the tastiest fries ever.

 P6: No, no.

CJ: OK OK OK so poutine has gravy and cheese curls and oh::: it is so good. It has some like

that in Disney. You should try it. It's amazing. It's…not healthy at all: but it is so tasty. I wish

they had it you know.

P6: OK. (0.1) OK I'll try. I'll try. What does what does it called again?

CJ: It's called poutine. Ah…like P-O-U-T-I-N-E. Uh there are such place uh: kinda by Disney,

called downtown Disney. They have uh like different kinds but it's got gravy, and cheese poured

on French fries.

P6: OK.

CJ: It's so:: [good.

P6: OK.   [I'll try that.

CJ: It's one of my favorite thing about [Canada.

P6:   [OK. I'll try that.

CJ: Also everybody there like spoke French and English. It's kind of weird.

P6: Um….OK.

Ed: So uh like what do you think like is the biggest differences that we've got here? Like in good

way in a bad way, like. What's that you really like that is really different?

P6: Difference? (0.1) I told you before because we have a separated life so when I came here I

have to blend with the boys you know so it's kind of make me nervous, a little bit. Uh…

Sean: You like it though? You like- like boys and girls hanging out. Do you like it?

P6: Um no↓. I love privacy. I love only hanging out with girls. I live privacy. (hh)

Sean: OK. We are not that bad but I hear you. I hear you. So what's the thing like you like more about home maybe? You don't like here, you know?

P6: Of course I miss the food over there↑. I miss my family. I miss them so: much.

Sean: Is it just you move here↑ and your family staying over there?

P6: Yeah only <u>me</u> and my little brother.

Sean: Like why do you move up here going school?

P6: Uh:: well I want to get my master degree but first I have to get the required English score, the IELTS score↑. Then I will apply↑ many university who will accept me I will go to.

CJ: Yeah I hear you. You know you got to apply for a lot of universities but you know it's that whoever=

P6: =will accept me=

CJ: =yes yes yes right.

P6: Yeah.=

CJ: =So you want to your major in? What do you want to be?

P6: Uh I will study medical physics.

(0.2)

CJ: Ah I am sorry what? I cannot quite hear you, what?

P6: Medical Physics.

CJ: Oh:: medical physics. Like you want to be a doctor?

P6: Not a doctor, but working with radiation, um: therapy like that.(hh)

CJ: Oh wow. So::…

P6: Treating people by radiation.

CJ: So like, not like like coming up with treatment. With actually like helping people with things they already exist?

P6: Yeah yeah.

CJ: Wow that's really neat like that's something you have to go to school a long time now.

P6: what?

CJ: It sounds like you have to go to school for that a long time.

P6: No. Only two years.

CJ: Oh only two years?

P6: Yeah.

CJ: Oh. Do you::…do you already have: [a general…

P6:   [Yeah I already have the bachelor degree in: in physics.

CJ: Oh::: OK so that's- wow that's you are already on the ways you are like you are almost the way there. Yeah that's↑ really cool.

P6: Thank you.

Sean: I think that's very impressive because physics…you got to do a good job because physics is hard. And you have doctor's subject is hard. You know not a doctor but kind of a doctor. That's that's wow that's really impressive.

P6: Thank you so much. But I … I have to get the IELTS score. I hope so.

Sean: Yeah you'll get there so. You already have a bachelor in physics. You are really smart.

P6: OK. [Thank you s-.

Sean: [That's really cool.

(Time reminder)

P6: So this is all about me. I have a good time with you all. Thank you so much.

CJ: Thank you for talking to us. Nice to meet you.

Participant Seven

Time: Mar. 27, 2017. 5:31 p.m.

Location: UCF Teaching Academy, TeachLivE Lab.

Sean: Hey how is it going?

P7: Good and you↓?

Kevin: Good what's up?

P7: Good. How was your day?

Kevin: My day is going pretty good you know. It's like almost over you know it's like- it's time to go home. That's good that's good.

P7: Yeah:: (h) I:: want to share with you my experience with you my:: studying abroad experience. Uh::.. I have been: to US it's my first time here. Um:: it's my first time study outside the- outside the Gulf countries. Um::…

Sean: So this is the first time you visited outside your country or living outside your country?

P7: Living outside of my country yes. It's my first time↑. Yeah, it uh sounds weird right?

Sean: Oh no that's pretty cool actually.

P7: Uh well ah about studying outside, I came here on a scholarship to UCF. Right now I am uh… English, at UCF ELI. After that I am gonna… I am going to study mechanical engineering. What do you think of my major?

230

Sean: Oh wow mechanical engineering. What do you want to do with that? What kind of job do you want?

P7: I want…uh::: I want to work as an engineer↑. I want to establish my own business↑. =

Sean: Wow

Pt: =That's my dream, yeah. What do you think?

Sean: Ah that's pretty cool. Like what exactly do the mechanical engineers do? Like you work on computers↑, you design things, or? What kind of stuff?

P7: Uh engineers work on all of the things that you mentioned. There are computer designing, everything. Most of thing, most of the physical and mathematical things. They have to do it. Um…

Sean: So- so you will work on the computers?

P7: Say it again?

Sean: You want to work on computers mostly?

P7: Yes:, yeah. On uh Autocad↓. Have you heard about it, Autocad?

Sean: Oh yeah it' programming language I've heard of that. I've been told it's used in theatre↑. I like- I like- I like do all that in place. When they design…I don't know if you know this, when they design um like the set stuff like lights↑. They use Autocad to design- uh that's the program so they can record the differences stuff. It's pretty cool.

P7: Good. Uh you are kindy? Cindy? No. What's your name? Ed? Where is Ed? (Ed reacted) Ed, how are you?

Ed: I am good. I just got back from vacation. I don't know if any one what to ask or talk about them.

P7: I want to ask, I want to ask all of you, starting with Maria. Have you been: um:: ::abroad? Studying abroad?

Maria: Uh yes. I actually got to visit Tokyo, Japan last year. And I liked it. I lived in Japan.

P7: Umm. What about CJ?

Maria: OK. You want to talk about it?

CJ: Oh I thought you are going to talk to Maria about Tokyo. 'cause she is on that…uh I've been to Canada. I went New Finland. And:: like I like it because like people are so much nicer. Have you ever been to Canada?

P7: No, not yet.

CJ: Oh yeah it's pretty cool. So…have you only been: here in Florida?

P7: Uh yes.

CJ: Cool, cool. What do you think?

P7: Say it again?

CJ: What do you think about Florida?=

P7: =Well, good so far. Where are you from?

CJ: Uh where am I from? I am from Winter Park. It's kind of near Orlando.

P7: Umm, good. Um::…

Ed: I went to Columbia last year. It's very exciting. I don't know. Uh uh I was wondering if you want to ask me about where I have been. I don't know.

P7: Umm, uh…(0.1)

Ed: Like do you want to know anything about us? Like uh where we have been and stuff?

P7: Tell me Kevin. Have you been abroad?

Kevin: Oh I have not been like but Ed has. He has got best stories, you know. Like Ed, take away.

P7: Umm.

Ed: Yes, I got to go to Columbia, and I thought it was very interesting because … they have…

(0.2)

P7: Uh::…

Ed: I am sorry I thought you were reading. I don't know if you are listening about…I couldn't see you.

P7: Yeah I have listen to. Kindy. (0.1) Cindy.

CJ: Ah CJ, so.

P7: What Cindy?

CJ: Cindy is my name but I go by CJ.

P7: O..K. um. Good. Uh: I want to ask::… all of you. Starting from Maria again↑. Um… what's the challenging, what the most challenging thing you faced when you are abroad?

Maria: The most challenging thing I faced was that in Tokyo it's very crowed.

P7: Uhm.

Maria: And it was- it was difficult to move around there are so many people. But actually everybody is a lot more polite. So: there is no argument. So it was it was different because when people get crowded here, like in Disney, they can get really rude:. But over there they are very nice. But it's still challenging. It is very constricted.

P7: Um::, OK. Good. Um Sean?

Sean: Yeah?

P7: Can you tell me about where have you been? Have you been abroad?

Sean: I have never left the United States.

P7: Really↓?

Sean: I have not. I would like to go. I would love to go to Italy thought↓.

P7: Um::: Italy?

Sean: Italy, yeah I'd like to go to Rome.

P7: Um where have you been in US?

Sean: Uh in US? Uh I have been to Texas, and I have been to Los Angeles in California.

P7: Wooo.

Sean: I <u>love</u> California.

P7: My friends study in California.

Sean: It's <u>so</u> pretty there. Have you ever gone to the beaches?

P7: Uh no. Not yet.

(0.1)

Sean: Oh oh there are actually there are something over there that is really cool. I know you want to know about it or ask me about it. There are something really cool they have it over there.

P7: Go ahead.

Sean: Oh OK. I like to see school play in LA it had I did not go. It was a magic show. Uh I had Neil Patrick there he actually was there- like he was the guest star. You know Neil Patrick Harris?

P7: No, not really.

Sean: He is famous here but he is very kind. It was hilarious. I got Neil Patrick at the show. It's so great. (hh)

P7: (hh)

Sean: Well I would I would love the tell that story all week but no one asked me (hh).

P7: (hh) OK. Can I ask what is the most challenging thing you have faced in California or Texas?

Sean: Ah.

P7: What's [your…

Sean: [I I I think the most challenging thing uh was…I got everybody out there even though you know it was in United States. So they are like mostly the same. But over there- there are a lot more relaxed.

P7: Umm.=

Sean: =Um. Because it's kind of a beach culture, and everybody I think it's because they have nicer whether. Yes Florida is so hot. Everybody just see it's really relaxed. Have you ever been to Disney world, here?

P7: Unfortunately no. My friend…I was planning to go with my friend unfortunately I had internship so they left me.

Sean: Oh no. (hh)

P7: Yeah. =

Sean: =You will get it back. You will get it back. But it's over here it's a lot more…I can't say it's crowded over Tokyo. I guess it's really crowded and hot. People kind of get more rude. But in California, and there is Disney park. Everybody is really relaxed.

P7: Yeah.

Sean: I think it's because of the weather. That's the big difference.

P7: Yeah. Hey Ed.

Ed: Yes.

P7: Uh::…what's the most challenging thing you have faced when you travel abroad.

Ed: The most challenging thing I faced when I was travel abroad to Columbia- will be that they treat time differently, unlike here in America. They::…um they over here if say you have an appointment at 3 o'clock, you have to be there by 3 o'clock:. But over there it's more casual, and: like parties can start thirty minutes or an hour later. Everyone is just relaxed.

P7: Ah.=

Ed: =So…it is hard to schedule things. It's very interesting. Being on time but being on time is differently, you know.

P7: But how did you find it?

Ed: It's hard, because if someone says I'll meet you at three. The I show up at three. When I show up at three, people won't get there until 3: 45. And it was hard for me to plan my day and I like planning simply so.

P7: Umm.

Ed: It's tough. It's tough.

P7: OK. CJ. CJ?

CJ: Yeah.

P7: Tell me about the most challenging thing you faced.

CJ: The most challenging I faced like here or do you ask me about my travel challenge?

P7: When you traveled.

CJ: OK. Specifically when I traveled. OK. Uh::…I say Canada, I guess some people um…speak French more and some people like speak English more. And you know that they:…most people are bilingual: over there, but some people feel very strongly about speaking one language over the other. And so sometimes I couldn't figure out like:…you know someone I say French=

 P7: Yeah::: [yeah

CJ: =[they say English and I say English they respond in French. And I thought that confusing.

P7: Uh OK. Got you. Uh::, Kevin. What's the most challenging thing you have faced?

Kevin: Uh Like I haven't gone I haven't left out of United States. Uh:: I guess the most challenging thing um uh in United States was…when I…went- to…I went to somewhere like Louisiana↑…

P7: Yeah?

Kevin: Because I…my family you know African America, and like there's people they won't treat you as well 'cause [like…different skin…

P7:   [Yeah…So- sor- sorry for that.

Kevin: Some racism, you know.

P7: Yeah, I got you. OK. Well, thank thank you for your time, thanks a lot for your time. Wish you all the best. Study hard and get high grades. See yea!

Participant Eight

Time: Mar. 27, 2017. 5:46 p.m.

Location: UCF Teaching Academy, TeachLivE Lab.

P8: Hi.

(0.2)

Kevin: Oh hey.

P8: Hi Kevin.

Kevin: Hey so.

P8: Kevin, how was they learn English?

Kevin: Oh how was my English? My English is pretty good↑. How is your English, like. You

know, in case you know sometimes you don't notice you know.

P8: And UCF, do you like UCF?

Kevin: Oh I don't go I don't go UCF, yeah. I am in high school. But uh:, I like I've got some

friends to go there and they like UCF though.

P8: You are in high school?

Kevin: Yeah I am in high school.

P8: Aha, and:… the what- do you visit another country?

Kevin: Oh I haven't but Ed has. Ed do you want to talk about it?

Ed: I went to I went South America a few months ago. I enjoyed it. But it was different you know.

P8: Do you find another language? Second language?

Ed: Oh I am sorry I cannot hear you. I think it's because your hand is covering your mouth.

P8: I say do you have: uh another language?

Ed: Oh do I speak another language?

P8: yes.

Ed: Uh I recently learned a little bit Spanish. But, just just a little bit, to help you get around…Columbia. Very very basic words like Ola, Como estas, you know uh. But I don't. I don't speak Spanish though.

P8: OK. [Can you…

Ed: [I was actually…sorry? Yeah go ahead.

P8: OK. Can you describe the culture American culture?

Ed: What would you like to know about American culture?

P8: {Anythink}.

Ed: Do you like me to say anything about American culture?

P8: Aha.

Ed: Um, well it's a lot different as it was in South America. Um I think South American was a lot more colorful↑ and interesting. Everything is bright and everybody seems to be very happy, having a good time:. While in United States it's very: work focused here. I am a little more structured. It's a lot more relaxed in Columbia. So it was very different. So different.↓

Sean: Oh yeah I'll say it's a lot more. We are in a culture that works a lot more over here. Ah: that's- hat's seems more of our focus.

P8: OK. How about your opinion and different between American and Saudi Arabia?.

Sean: Uh I have never been to Saudi Arabia. I don't know a bit about Saudi Arabia. I like uh::…do what do you notice was different, uh what do you think it was different or the same?

P8: Nothing is different. Al- same.

Sean: There is nothing different, all the same?

P8: Yeah. Everything same.

Sean: I am confused.

P8: (hh) No, really↑. Everything is same, similar.

Sean: Oh man so everything is same in Saudi Arabia as it is here?

P8: Yeah.

Sean: Oh man like your friend who is here before. She said they were a lot different.

P8: Who is it, the girl or the man? My sister? Maybe it's different a little something. I don't listen to my fellow sometimes or.

Sean: Oh man like…

P8: [You are not all]

CJ: [I think I mean]…[sorry what?

P8:   [OK. Not all thing is different.

CJ: Oh yeah I knew your friend: was saying it's different because- like boys and girls they cannot really talk. Like men and women cannot talk really. Over there they don't hangout but here they do:. And she said like a big difference. So, that's a big thing.

P8: Yeah sometime sometime. But they can talk again no problem. Doctor, nurse, teacher no problem.

Sean: Like it's no problem for you↑ or [like…because there are different people or what.

P8:   [No problem for the people, the people, there is no problem.

Sean: Oh there is no problem.

P8: Talk with her again. No problem. But you should have subject. You don't talk with the girl uh::… if you don't have any subject.

Sean: Oh man like so you- so you OK like talk to anybody about anything?

P8: Aha.

Sean: Yeah 'cause I I have some other girls too they said it's different. But you say it's not true, you say like:…that's interesting. They say like- where they are from they are not really-

socialize↑ with guys but that's not your experience. Like where you are from they talk to everybody in Saudi Arabia?

P8: No no, similar. But I have question uh share. What's your major?

Sean: Uh what's my major uh uh I I don't go to school yet. But um… I think I will major in music.

P8: Um:…(0.3) music?

Sean: Yeah.

(0.1)

P8: Nice.

(0.2)

CJ: Do you want to ask us like where we went [or anything?

P8:   [Yeah yeah, you you kind of…please.

CJ: Ah OK. (0.1) Please what?

P8: Ask ask. (hh)

CJ: I am sorry [you are not ah ah ah…

P8:   [Ah you ask me yeah ask me.

(0.2)

CJ: Excuse me, what?

(0.2)

Sean: I think it's time that you ask us?

P8: Uh you, he, <u>you</u> ask me. Uh, I am ask, sorry. Uh uh: (0.3) do you: anyone here is: studying in another country?

Sean: Uh Maria did a little bit.

Maria: Uh yes I went to Tokyo, Japan, [for a few months.

P8:   [Um how how was it? (0.2) Hello?

Maria: Hello?

P8: (hh) Yeah how was Korea?

Maria: Uh what about Korea?

P8: No, Tokyo Tokyo. Sorry Tokyo in Japan.

Maria: Oh OK OK. How was Tokyo?

P8: Yeah.

Maria: Um it was very pretty↑. It was very::-, there was a lot of technology↑, very advanced technology↑. Um it was very clean. I noticed nobody littered they um they had trash they take it with them because there was no trash tin oh- on streets. So…it's also different because if you are walking, if you walk down streets↑, people will be on their cellphones, or smoking, or eating. And over there if you are walking? You just walk. You know that was very different.

P8: Um. Do you like it?

Maria: Did I like it? I did. I really like it exactly. Everyone is more aware one another↑. So…everybody is getting along better because everyone is more polite.

P8: Uh OK. Uh last question↑. They…(0.6) You were high school is challenges? Here in America?

Sean: Uh high school challenges, high school in America. I I think- that uh: two things uh like we were talking about before how America is very work-focused↑. I don't think there are enough important place- uh: like culture or arts- or the arts as much as its support for that in schools like it should be: in America. Ah where in other countries, like in Australia. They treat being actor as a real job. And over here we are just very deadline focused without focusing on other things. I think that is a problem.

(0.2)

P8: Do you have any question or anything?

Sean: Ah what is your- what is- what are you- what are you- how long have you been in school?

P8: Here? Seven months.

Sean: Oh you have been here for seven months.

P8: Um.

Sean: Wow. So do you have any of your degrees yet? Or still working on it, or, or what?

P8: What's mean?

Sean: Like did you get a bachelor's degree or: uh uh associate's degree or anything like that?

P8: I don't know what's mean your question. Sorry.

Sean: Oh I was asking in college↑ you get associate's degree or bachelor's degree or a master's degree, it's what you study, after you complete your training, you get a degree. So do you have a degree?

P8: {Bakloyer}, what's a {bakloyer}.

Sean: Excuse me I did not understand.

P8: You know {baknowledge}, no master.

Sean: Oh you don't have a bachelor's↑ or master's, oh I see I see.

(time reminder)

P8: Um. OK guys nice to meet you.

Ed: Nice to meet you.

CJ: Thank you.

P8: Thank you.

APPENDIX D INTERVIEW DATA

Participant one

Interviewer: So you did a great job.

P1: Thank you very much.

Interviewer: Is this the first time you talk to a screen like that?

P1: Yes that's my first time to talk to a digital character like that.

Interviewer: So how do you feel about talking to those virtual characters?

P1: First it was a little bit weird because I'm- they like interact like real people. And but at the same time it's amazing. And I feel more comfortable talking with them than talking with their real people who's sitting in front of me. Like talking with the screen people in screen, It's more comfortable for me.

Interviewer: So that's interesting. Why is that?

P1: Because I don't I don't have to like I don't have to see like real people who might judge the way that I talk or the way that I speak or the way that I look. Digital characters is more comfortable for me.

Interviewer: So you're more relaxed.

P1: More relaxed. Yes.

Interviewer: But I noticed the way you talk. When you talk to them you are still very polite, very sweet, give response like good job, encourage them like you did to the real people. You don't like Hey I don't care. They're not in real life so I just say OK whatever I want to say.

P1: Because I guess we're talking about serious issues about cultures and just like serious topics and all of them like they're nice. So I guess I have to be nice to them as well if they are rude. Then I'm not going to talk to them but they're nice. So that's why I'm talking nice to them.

Interviewer: That's a very comfortable environment to speak English.

P1: Yes right.

Interviewer: So what impressed you most your during the conversation.

P1: Well what impress me the most when they reply immediately like they're are sitting in front of me and it's like very very real to me. And they listen well and they reply immediately after I ask them a question or after I give them feedback. And the way that they interact with each others too to like when Like for example when someone gives an opinion of the student sitting next to them will say I agree or disagree or have another. So it's like a real conversation. So this is what impressed me the most.

Interviewer: Cool thank you for answer and can't tell us like which of the characters you like to interact the most. If you have a preference.

P1: OK as a character but not the opinions they set as a character I like. I like Kevin. He has nice shoes. It appears from Gucci or something I don't know. And Maria. Her personality is interesting because she looks shy, dressed in a black something like this.

Interviewer: She is.

P1: And those two that I like the most. Kevin and Mary.

Interviewer: You like Maria because she's shy?

P1: Because her personality is interesting because I'm the opposite of this. I'm outgoing and I'm very like. So I want to know more. Like CJ for me, it's like OK she's very it seems…

Interviewer: Norah Like?

P1: No it's not I don't like her but she's. How can I say that. She's not shy. So. So this is not interesting for me because I'm not shy as well but

Interviewer: she is more like rebellious teenager.

P1: Yes. But for Maria because it's different from my personality I see her interesting. I like Kevin because he gives like different opinions from what I thought, from what I expect from them.

Interviewer: Very nice very nice. Would you like to participate more activities like interacting with simulations like this in the future?

P1: You mean with digital characters or anything?

Interviewer: Yeah. Anything just the simulations like not real people but in a virtual environment, discuss and talk.

P1: Yeah I like this kind of things discussion and conversation and give opinions and listen to other people as well. You might learn something from them and you might teach them something new. So. I think exchanging ideas and thoughts is a good thing for me so I like to do it more in the future.

Participant Two

Interviewer: So. Great job. How do you feel about talking to a digital character? It's kind of something.

P2: It's weird.

Interviewer: It's weird OK.

P2: It's weird but. It's actually I talk to them. I feel normal because they are like real people. So I think I'm talking to people. So it's not weird anymore.

Interviewer: So just talking to people.

P2: Yes like talking to people they're responding faster also. They answered the question correctly like they're listening to me.

Interviewer: Of course. You have their full attention. Yeah. And. So. Are you nervous or relaxed during the conversation.

P2: I was nervous in the beginning. After that I was totally relaxed. Yeah I feel comfortable because there are not real people.

Interviewer: You are comfortable. so comparing to your experience speaking to the native speakers, you know they are the digital characters also the native speakers. What differences do you feel?

P2: I don't feel they're looking at me. When I'm talking, I don't feel their eyes on me or I should, I contract with every one of them. They are just one screen in the…they are digital. I feel stronger than…

Interviewer: Feel stronger? Can you give a little bit details about stronger?

P2: I don't know how to explain that.

Interviewer: Like you are more powerful than them or…

P2: Yeah. Not powerful You know stronger, it means. I'm strong. Like. I can compare myself to. Them.

Interviewer: So you can connect to them.

P2: Not connect. No I can't compare myself to them.

Interviewer: Compare which part?

P2: I mean like we are at the same level. How can I explain that.

Interviewer: That's good. Same level like OK it's not like when you talk to native speakers you feel a little bit awkward because…

P2: Yeah because I shy yes or no I'm afraid to make mistake. No I'm like I feel like I am at their level. Even I am making mistake but still I can communicate with them well and I can express my opinion.

Interviewer: That's a really interesting point. I like that. And so can you tell us which character you may like to interact most if you have a preference.

P2: Kevin and Ed.

Interviewer: Kevin and Ed. OK. Why is that?

P2: Kevin. Because he don't care about anything.

Interviewer: His care-free attitude.

P2: He doesn't judge anything. I feel like he's OK with everything.

Interviewer: And others judge more?

P2: Maybe. C.J. I think. And I didn't lie to Maria.

Interviewer: Why?

P2: Because she's black, so black, darkness.

Interviewer: Like a gloomy character?

P2: She is so isolated. I hate to be that kind of people.

Interviewer: Just like an outsider?

P2: Yeah. And even she doesn't want to change. She like herself. Alone.

Interviewer: Wow. OK. And you get that from that conversation?

P2: Yeah.

Interviewer: Cool. OK. And so if you have a chance would you like to participate in the activity like a similar simulations.

P2: Yeah it's fun it will improve my English. So.

Interviewer: Why do you think it helps you to improve your English?

P2: Because I am going to talk to a native speaker. And I don't have this opportunity in real life. Because you know, ELI building. It's multi-nationality. So they're not native speaker. I can't meet a lot of the speakers and make friends with them easily.

Interviewer: OK. But you have teachers. And here there are a lot of American students also

P2: But not in my building so how can I meet them in the street and say hey can you talk to me and be my friend. You can't do that. Because I'm not living with the same person or see a lot more.

Participant three

Interviewer: OK so that's it. How do you feel about it?

P3: Awesome.

Interviewer: Awesome. You like talking to them?

P3: Yeah.

Interviewer: Are you nervous? Or quite relaxed?

P3: Not really. It's all relax. Very comfortable.

Interviewer: Quite comfortable?

P3: Yeah.

Interviewer: OK. And so have you ever seen anything similar like this before?

P3: No it's my first time. It was kind of weird, but I like it.

Interviewer: Do you remember your former experience talking to native speaking people?

P3: This is true until now it's like not so easy. It's hard. But with these guys. This. It's more comfortable.

Interviewer: OK. So you see when you're talking to native people. You think it's easy or is it hard?

P3: No it's hard. It's not easy.

Interviewer: It's not easy. Which part? Can you give me like an example?

P3: I feel like I cannot understand them very well you know they talk fast. And I can try to ask them could you repeat please. You know like I have to catch them. And. I feel nervous because my English is not good. Not really good. So I feel like shy too to ask them or talk with them. So.

Interviewer: OK. Cool. So here with the avatars and now you ask them to repeat.

P3: Yeah yeah it's like my friends you know.

Interviewer: Yeah. No. No pressure.

P3: No pressure.

Interviewer: Nice. Can you tell us when you're talking to the characters maybe which one do you like best to talk with?

P3: I love them all. You know they all like with their characters like special characters but Maria I think she is so quiet.

Interviewer: Yes she is.

P3: You know some of them was like so active, like to ask, to talk. You know also there is a shy person. I can remember his name.

Interviewer: Ed?

P3: Not Ed.

Interviewer: Kevin? So it's a girl or boy?

P3: No it's a boy, so shy. You know. Sean.

Interviewer: Sean? Sean is so shy? Sean is the talkative one actually. Maybe you're too pretty for him to talk. OK. Nice. What impress you most when talking to these avatars?

P3 The good way or?

Interviewer: Just every aspect, which impress you most, like wow they can do this they can do that. What's not in your expectation.

P3: I got surprising because they were like so real. Like I'm talking with the real person. So this is. Kind of weird. But I like it.

Interviewer: Nice. So if you have a chance to participate such activity again do you like to do that?

P3: Yeah yeah yeah. I would like to also like if there is any program to buy it or to use it in my home I talk with them I will love to, to improve my English in a comfortable way.

Interviewer: Yes yes. Like me sometimes I as an English learner I like to try to talk to Siri and see how she can understand here but still Siri can do very limited thing. It's not like this program.

P3: Yes. And she cannot understand very well.

Interviewer: OK. Thank you so much.

Participant four

Interviewer: So again so what about your general impression about the session? How

do you feel like talking to these avatars?

P4: I didn't think that I was comfortable. I thought it was like very odd things like you know

talking to something. You know not facing you. But I actually have like an easier experience

talking to this as opposed to talking to real people. Because I do have a hard time talking to

people and it was easier initiating contact with them.

Interviewer: So you say it's kind of odd?

P4: At the beginning but what I thought I perceived that to me I thought was very odd. You

know I didn't think it would be as realistic as it was.

Interviewer: So then it feels like…

P4: Very realistic yeah. So you can just have any sort of conversation with.

Interviewer: Exactly. I noticed that you get into a very deep discussion talking about women's

rights, and even the government functions. That's so hard. Actually it's a surprise to me too

because usually they don't get that deep. But you did a good job bringing them in to a new level.

P4: Yeah I don't think of that too.

Interviewer: So. what would you feel? Do you feel nervous or more relaxed?

P4: Actually it was very easy to talk to them. It was like an actual class. I pretty much like have a

hard time starting or you know keeping the conversation going on. But it's very easy.

Interviewer: Easy. So hard with a real class?

P4: Yeah right. You like what happened to you. I have a hard time keeping the conversation going. But it was very easy like doing so with them.

Interviewer: That's my great to know. And so. Can you tell us which of the characters impressed you most? You like to talk?

P4: I like Maria.

Interviewer: You like Maria? The girl dressing in dark and very quiet?

P4: Even though she is introvert she has a lot to say.

Interviewer: Yeah she's introvert but you know she also mentioned she'd like a classic literature; she likes reading; she thinks a lot but she just doesn't speak a lot.

P4: That's why I like, when we start talking I got to you know more what she thought.

Interviewer: Yeah. Is that because she's more like you to think more and talk less?

P4: No, because she is kind of my kind of demeanor the way she sat, I'm like that I have a lot to say. Yeah, that's why I like it.

Interviewer: You're a deep thinker. I enjoy talking to you very much. Can you give us more example? Because I notice when you talk to the amateurs. It's a little different when we talk before…

P4: talked in the interview?

Interviewer: Yeah. It's like, sometimes your sentences are shorter…do you feel it's a…

P4: Like the demeanor I talked to you? Because that's something different. Something like I don't know how to respond sometimes. When I don't know how to respond but I don't have an accurate answer. I kind of pause. It takes me some time to think.

Interviewer: But I don't they ask difficult questions.

P4: It's not difficult. It's just like I am not much certain about the answer.

Interviewer: So you are not certain. So can you remember any example?

P4: I don't remember. At the end, when I took quite some time to actually answer?

Interviewer: OK. Good. Thank you.

Participant five

Interviewer: Hey Maria. First do you have questions about the task?

P5: No no.

Interviewer: No?

P5: I like it. Uh I feel comfortable. Maybe a little nervous when I cannot find appropriate words to express my opinion. But I think it's good. It's really nice. Some time I was wondering how the people these are real people. This is so difficult for me to understand. Now I'm wondering how the real people see me or see me in other place? This made me a little nervous.

Interviewer: OK that it's OK just to relax because it's kind of between reality and total virtue. So you understand the task is asking you to be a group leader. So ask your group member to share your experience. Ask your group members share their experience.

P5: Ah yes yes I didn't understand this.

Interviewer: Yes. Yeah that's the part. That's kind of missing in the middle. But generally speaking so, have you seen such a thing before? No?

P5: No.

Interviewer: No. No not at all. Do you remember your former experience talking to native speaking people?

P5: No.

Interviewer: You never talk to English speaking people? English speakers?

P5: Yes yes.

Interviewer: Yes. So. What do you think is the difference?

P5: I understand Better. People from the country in English, not to people in English. I usually understand better, Arabic people or whatever, than native people. I don't know why.

Interviewer: Oh. That's funny. Because for me I'm an English learner, my native tongue is not English but I understand native speaker better than non-native speakers.

P5: I think it's because they speak faster than non-native American speaker.

Interviewer: OK. So those avatars, the digital characters they are native speakers.

P5: Yes yes.

Interviewer: So comparing to your previous experience speaking to native speakers, real people what are the differences?

P5: It's the same. I didn't see any differences. It's more or less the same, of different personalities. It's close to the reality speaking with other people. I don't see any difference. Like they are in the image screen and no face to face, a little a little slow the answer a little slower than face to face.

Interviewer: So you feel the same to you. You don't feel more numbers or more relaxed?

P5: I feel more relaxed because with real people you need to think you made an impression…

Interviewer: Your first impression to the others.

P5: Other people other cultures….But that is the reason I was thinking. People is hiding that's not real.

Interviewer: Did you notice that sometimes they will repeat what you said, during the conversation? Like when you say all this to kloobs and they say oh clubs?

P5: Ah yes yes I remember one time…

Interviewer: And when you say pooblic transportation, they say like more public transportation?

P5: Yes yes.

Interviewer: Did you catch that.

P5: Yes. But not that really. I remember now because you are remember me but in the conversation it seems natural.

Interviewer: Did you notice why did they repeat that?

P5: Maybe for better conversation or better understanding?

Interviewer: Yeah sometimes, clarifying things. Good good. What impressed you most during the conversation?

P5: First of all. How do they do that…

Interviewer: That's keeping distracting you right?

P5: It's a screen…

Interviewer: And which character do you like to talk to most? If you remember.

P5: Maria and me are same like…

Interviewer: Maria?

P5: Yes.

Interviewer: Maria is so popular. Why is that?

P5: Maybe because she told me about the culture experience.

Interviewer: But everyone talked about experience.

P5: She talked a little more than others.

Interviewer: So provided the future chance…

P5: For example, CJ when she talks I don't understand.

Interviewer: Because she speak too fast?

P5: Yes.

Interviewer: OK. Got that. And how about a Kevin and Ed?

P5: No. Good.

Interviewer: Good? OK. So if you have a chance to participate into this similar program. Will you be interested in that?

P5: Yes maybe.

Interviewer: Maybe. OK. Thank you.

Participant six

Interviewer: How do you feel about talking to the amateurs? Have you ever seen similar things before?

P6: No. It's cool.

Interviewer: That's good. So how do you feel? Do you feel nervous?

P6: Not because of them I feel nervous it's because I don't have good English so…

Interviewer: You're doing well. Your English is good.

P6: Very comfortable.

Interviewer: Very comfortable? OK. So. Have you talked to the native speakers here before?

P6: Yes at hospital or supermarket.

Interviewer: So what are you seeing that's different from talking to the avatars and to the other the real life native speakers?

P6: They are not like people in ELI, who speak very simple English so we can understand.

Interviewer: So you're saying native speaker will say simple English to you?

P6: But what do you mean?

Interviewer: Well you just mentioned.

P6: Simple as ELI. The teacher's speaking a simple way.

Interviewer: What do you think is different from talking to them and talking to the people outside the ELI? The native speakers.

P6: No difference.

Interviewer: No difference? OK. And what impressed you most during the conversation with the avatars?

P6: They response to me when I am talking; they look at me, like they are real people.

Interviewer: As I said they can see you. So can you tell us which character you would like to talk most? Like do you have a preference? Which character do you like best?

P6: C J. and the boy with orange hair.

Interviewer: Sean? Yes. Why?

P6: Also the girl with black hair.

Interviewer: Maria.

P6: Maria.

Interviewer: Why they are your favorite?

P6: They keep asking me question I answered. We chat.

Interviewer: OK. So you like others ask questions and you feel comfortable answering them?

P6: Yes.

Interviewer: Will you like to participate activities like this in the future if given chance?

P6: Yeah I will be.

Interviewer: Nice. Nice. So generally speaking do you enjoy that session?

P6: Yes.

Interviewer: Good to know. Thank you very much.

Participant Seven

Interviewer: So how do you feel about talking to the digital characters?

P7: It feels comfortable to talk to people in English. I am here to practice my English. Sometimes I am talking to other native English speakers, I feel nervous because sometimes you can understand sometimes you cannot. You cannot explain things like this. It's hard to describe. You have nothing to lose at all. We all make mistakes. Because if you make mistake in front of native speakers, you are nervous. Then you everything is wrong. But here. When you made a mistake, it's OK.

Interviewer: It's ok that. Yeah exactly. So during the conversation do remember sometimes the characters may repeat what you said?

P7: They repeated what I said? Yes but I don't know many of them but I think one of them repeat. I am not sure.

Interviewer: So you don't remember which part is that.

P7: No.

Interviewer: OK. Good. You mentioned that you feel more confident talking to them. Do you feel it's more nervous or more relax?

P7: No. It's like you are talking to Siri.

Interviewer: OK. Yeah. Yeah.

P7: Similar.

Yeah you and Siri. Yeah. No no sweat. OK. So can you tell us if there's one character that you like most?

P7: Maybe CJ and Kevin

Interviewer: CJ and Kevin, why?

P7: I think they're active

Interviewer: They are active? You like talk to active people?

P7: Yes.

Interviewer: So yeah actually they have different personalities and Maria I think is a little bit shy.

P7: Yes I don't like her personality. She is very shy. She is too closed

Interviewer: So good. Will you like to participate activities like this if you have a chance in the future?

P7: Sure sure.

Interviewer: Thank you. Thank you.

Participant eight

Interviewer: So you're finished. OK. Do you think it's difficult for you, the task?

P8: Maybe I have.

Interviewer: How do you feel about talking?

P8: Enjoy.

Interviewer: Enjoy talking to them?

P8: A little funny.

Interviewer: A little funny. Why? Which part is funny?

P8: It's crazy.

Interviewer: Can you tell us why you think it's crazy? Which part do you think it's crazy?

P8: talking to them.

Interviewer: But we have Siri, and Google Majel it's not that crazy.

P8: I don't know.

Interviewer: So are you nervous during the conversation or are you quite relaxed?

P8: No relaxed.

Interviewer: Relaxed? Good. Good to know. And do you remember your former experience

talking to native speakers?

P8: Different. They cannot understand me.

Interviewer: OK so when you talk to the native speakers you understand them but they cannot understand you?

P8: Uhm.

Interviewer: But how about talking to the avatars? The digital characters.

P8: No problem.

Interviewer: So it's the same like you talk to the other native speakers? Or there are differences here?

P8: different.

Interviewer: How different?

P8: It's like crazy.

Interviewer: But crazy is too general.

P8: Something amazing? Surprise? Like surprise?

Interviewer: But you mentioned it's different talking to real life people and the avatars. What are the differences?

P8: They? Not difference. They are not real people.

Interviewer: And so how that make the difference? What's the different the feeling do you have?

P8: I don't know.

Interviewer: You don't know? It doesn't feel anything different?

P8: No. But I laugh when I talking.

Interviewer: OK. Do you laugh as much when you're talking to the other native speakers?

P8: With avatars.

Interviewer: There are five characters there. Which character is your favorite?

P8: Well all.

Interviewer: All of them? Oh you don't have a preference?

P8: No because I am not remember their name. JC, CJ and Kevin just the two I remember the name.

Interviewer: But which one is your favorite. Which one do you like most?

P8: This favorite. Best.

Interviewer: Great. Thank you very much.

Interactor

Interviewer: So first. Can you tell me a little bit about yourself and your experience working with TeachLivE?

Interactor: About my experience working with TeachLivE and everything like that?

Interviewer: Yes yes.

Interactor: OK. So I think have worked with TeachLivE for four years, maybe a little more. I took a break for about a year in 2015 and came back last year um last summer. It's a unique experience. I really love working with TeachLivE. I love the academic research and I love the helping students really practicing their skills for teaching. And so it's always been a very positive experience. I am especially grateful for that I have the opportunity to work with particular projects that are challenging for me, which I really enjoy. I also find that are very important and close to my heart because of each of their target. And some of the projects we work with Dr. Nutta and EL classroom, which I think is super interesting and I did something that I am really proud of to help them out. And I also worked on another project with juniors doing the thesis from the foreign countries. And that is also very special, very important for me, a lot of fun too. And because we have first of all connection with um working with immigrants reminds me of myself. And this project can be really special and really fun for me. And of course every time I work with a special issue, I always find they are all very rewarding. So it's been a lot of fun and I really appreciate the work that we do at TeachLivE. Everyday I become more convince that you know actors have to know very specific fields but also specific personality traits, understanding

almost you know the world, very specific to be able to really convey the things that needs to convey in our mission, but also to be able to really help, to do our job the best way possible.

Interviewer: Sure. Thank you. Thank you very much. And so I know this project so interacting with English learners as quite a brand new experience right? is this something you haven't done before.

Interactor: The project that you did?

Interviewer: Yes.

Interactor: Yeah I think so. I mean I had full background knowledge but I think the difficulties that your project has set up is the first time being that way I think.

Interviewer: Yeah. So how would you describe your experience with this project that interacting with the ELs?

Interactor: Right. It was a lot of fun. I travel a lot and I also enjoy other cultures a lot. And I think personally I was able to connect to the project deeply to involve in something that I really like. It was very fun to be able to you know talk to people from other places when they saw what they had and what they wanted to know. It's always nice to see the students, the Arabic students, because obviously they all have very different perspectives of the world. And in the particular case each one of them or all three of them have travelled and have their own experiences about being abroad.

Interviewer: Yeah. Cool. Thank you. What do you think about our participants' language proficiency? Are there any difficulties while communicating with them? can you understand them clearly?

Interactor: Yeah I think I could. I think I could understand them clearly. But things are not always the same according to the point of view, depending on where they are from, but yeah, in general I could understand them pretty clearly. But again, remember that I haven't been here for a while so

So I don't know if they share the same judge with me.

Interviewer: So do you feel you may need to slow down or modify your language while talking to them, for example, make things simpler for them to understand?

Interactor: I am thinking individually I have. I may have that in thinking but because they have specific characters we are using, which I feel I may not be able to follow that thoroughly so we have to follow up our characters. Maybe if they don't understand something I will try to explain it, say it a little be slower as the character can. Well I did it in a way which the character would do. Does that make sense? It wasn't really Nadia speaking in the way but rather Kevin or Maria or CJ would have done it.

Interviewer: Yeah. Actually Maria speaks a lot slower than Sean or Kevin.

Interactor: Right. Yeah exactly.

Interviewer: OK. So during this project, the study, which part do you think is the most challenging or the most difficult to you?

Interactor: As an interactor?

Interviewer: Yeah.

Interactor: I think I remember thinking that that was challenging for me to try…you have asked to kind of correct their language…

Interviewer: to recast, yes.

Interactor: That was very hard because they quite didn't fit with it. Sometimes the conversation was very fluent. And they were communicating their thoughts with me so it's hard to correct their language to me.

Interviewer: Yeah yeah.

Interactor: Yeah I think it's the most difficult part. I have that in my head and I try to do that without interrupting the fluency but then it just became rather difficult so I didn't get that part.

Interviewer: Is it hard to keep the conversation flow in this project?

Interactor: Like I said, not necessarily but it has to be done through the vision of each personality here. Each character has its different knowledge.

Interviewer: Can you give us some example? As it is different with each character?

Interactor: Um sure. So I think CJ she likes understand…because of her personality she understands things in a more superficial manner. She may repeat something but not really many thoughts into it. She says it and she will forget about it. That's her personality. She speaks as like everyone here speaks English. That's not problem because of her personality. While maybe somebody like Maria, she noticed someone has difficulties, she probably was able to adjust her speech a little more, more conscious to that.

Interviewer: That's very nice I think yeah. When I asked the students who was their favorite Avatar Most of them like Maria very much, like her personality, the way she speaks, like very slow. And her appearance as a deep thinker.

Interactor: Yeah and she is. At least I did it this way I don't how Kimberly did it. I am not sure. But Maria because she's a deep thinker, and she is somebody who formed a worldview, well around and spiritual type personality. She is also very interested about people. She genuinely wants to hear from you and she genuinely wants to know what to communicate.

Interviewer: And do you feel it's difficult to keep the conversation within the task topics like so I know when we talk sometimes we go too far off topic. And for the avatars you need to remember and bring them back. Do you think such occasions that happened a lot during the conversation and you found it's difficult to get everything back on the track?

Interactor: Well as an interactor I have five different characters So if CJ goes off the topic or Sean goes off the topic other three characters can come back and stay at the topic. So I don't think it's necessary hard. You know, just something else we need to think about. And make it happen naturally too. Like some character will push things in a particular way, right?

Interviewer: Right. Cool. So as far as you can recall, how you may evaluate the performance of our participants?

Interactor: Oh the students. I thought they all did very well. Their English right? Their English proficiency. I think they all did it very well. They not only communicated efficiently but they also express their experience in correct words and said things very clearly. Overall I think they did a good job.

Interviewer: The last part. What do you think is the most rewarding part to you in this project? Or maybe a take-way, the beneficial part for the whole TeachLivE program?

Interactor: I think I appreciate about that um I cannot speak for other interactors but in my personality when people can speak to the others, they will understand that they are not alone. So I appreciate that our students can talk to the characters or other students who also have gone through the experience of going to a foreign country, and kind of going through the same problems. While talking though the same experiences I think it's valuable it will help people, you know, it's hard to be in another country and try to live somewhere else. And I think hearing experience from other people, you can communicate and you can understand, and identify with…it's a very powerful thing. So that's always rewarding to me. And personally I am always interested in hearing others… I'm kind of like Maria, I love cultures. I love other languages. When I hear what people are saying where they're coming from different places and there was a lot of fun for me to hear what their experiences were. It's also very interesting 'cause I like… some of them said something about United States that I thought were rather different from what I expected then. But it's interesting that they talked about that.

Interviewer: Like what?

Interactor: I remember one of them. I don't remember whom but we were talking about tolerance. And the student was very excited that United States being a very tolerant country for other believes and other religions. And I found it very interesting because while United States is also a place obviously a mix of different cultures and religions, lifestyles but it's also a country that is actually not very tolerant. I mean you can see that very clearly right now with the political climates with the actions of individuals and politicians. And we can see the comments that

278

people make. It's just I was very surprised for that. So I thought it was actually very cool that they thought it in that way. You know, make us wonder what kind of life they have, what kind of privileges they have.

Interviewer: Cool. Yeah. And the for the TeachLivE project do you think this kind of task or communication in some degree may help like the conversation skills for the English learners?

Interactor: I am sorry what kind of conversation?

Interviewer: Such practice, a short interaction and time talking about different topics that relate to their life or any academic subjects…activities like this. Do you think it will help the English learners in some way? In what aspects?

Interactor: I think so. Like I said it will help people who have been struggling in language or like that in kind of opening conversation that may not be ready for talking to the real people. What I think would be with the avatars that people are willing to engage sometimes in the conversation they would not engage in real-life. So I think how many opportunities we really open to that and how many opportunities they can identify with the experience of the avatars can be very valuable.

Interviewer: OK. Thank you. Thank you very much for the time.

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