Language Learning in a Virtual Classroom: Synchronous Methods, Cultural Exchanges

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Abstract. Exploring language development through using synchronous (real-time) voice and chat technology will be the focus of this paper. Researchers interviewed students, teaching assistants, and teachers of an online English as Second Language program based in Taiwan, using grounded theory to begin generating a theory of language learning using this new technology. Students of all ages reported preferring the online environment because they were less fearful of speaking online due to the anonymity afforded by the technology. Engaging article content motivated learners to interact with teachers and, as they became comfortable to interact collaboratively with each other. The opportunity to speak English with native speakers enabled students to obtain the necessary fluency for business, school and travel.

Keywords. Synchronous communication, voice over Internet protocol (VoIP) technology, computer supported collaborative learning (CSCL), English as a Second Language (ESL)

INTRODUCTION

Lee[*], a 24-year-old native of Taiwan who speaks Taiwanese, Mandarin and English, began studying English in elementary school and continued through university. Initially, Lee was not interested in learning English as the lessons were uninteresting and there was no one with whom to speak English. However, she wanted to please her parents by studying English. Years later Lee made plans to travel to the United States, and she sought an online course to prepare her to communicate with the Americans she would encounter. She joined a course offered through the Internet using synchronous (real time) voice and text chat, taught by native English speakers located in the United States. Teaching assistants located in Taiwan, who were bilingual in Mandarin and English, co-taught the course, called "Speak2Me LiveUSA," offered by Ladder Publishing, Ltd. Students from Mainland China and Taiwan logged into the course to discuss articles primarily about American culture. Through this interaction, Lee improved upon her English, learned to use American idioms, and became familiar with English as a tool to understand American thought. A year later, Lee visited the United States, taking a job at a large amusement park so that she could travel and experience a culture outside her own.

Stories similar to Lee's will become more prevalent during the next ten years as access to online learning expands and opportunities for cross-cultural exchanges are made possible through synchronous technologies. Through online learning, access to learning other languages will become more convenient and flexible. But more importantly for second language learners, the technology of online learning offers the possibility to interact with members of the target culture, thereby contextualizing language learning. Wong Fillmore's (1991) model of language learning in social context recognizes the importance of interaction with target language speakers for the development of a second language. When language is contextualized, speech is used productively, shared background knowledge is utilized, and the target language's thought pattern is acquired. Given the opportunities presented for contextualization and learning with someone from the target language, language development in a synchronous online environment with voice over Internet protocol (VoIP) technology can be just as effective as face-to-face language learning in a brick and mortar classroom. Indeed, with rigorous course design, synchronous online language courses may enhance and even surpass face-to-face courses, as it well must given increasing global ties among nations.

Language learning through the Internet will increase with mounting pressure to learn other languages as we enter a new expansive area. Every expansive area in the history of humankind has coincided with the operation of factors which have tended to eliminate distance between peoples previously hemmed off from one another (Anderson, 2003). Language development meshes with the Computer Supported Collaborative Learning

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[*] All names are pseudonyms and identifying information has been changed.

(CSCL) ten-year agenda as it focuses on the intersection of technology with the socio-cultural aspect of learning another language through collaborative methods that bring together very different cultures around topics of common interest. As CSCL's aim is to explore how technology can be used to facilitate collaboration, we foresee language development using synchronous technology as a part of the new innovations in education arising out of the increasing availability of high-speed Internet access and use of VoIP.

PURPOSE

The purpose of this exploratory study is to discover the interactions necessary for individual language development in an online, synchronous, voice-enabled environment, using a sociocultural approach resulting in a preliminary grounded theory. At this stage of the research, interactions will be defined generally as communication that takes place in English among the learners, teaching assistants, and teachers.

This preliminary study endeavors to begin the development of a theory about learning another language in a synchronous virtual environment using VoIP. This paper seeks to make its contribution to the inductive process of language development theory building by adding phenomena discovered when researching an English as a Second Language program offered by Ladder Digital Education Corp., and enabled through the synchronous (real time) technology of VoIP, in contrast to evaluating the use of the program's features. The synchronous technology of voice over IP enables communication, educational avenues, and community building across cultures, previously considered difficult due to the constraints of the text-based, asynchronous (not occurring at the same time) nature of online learning.

McIsaac and Gunawardena (1996) affirm that the concept of interaction is fundamental to the success of learning. Language use, the way we use or do not use words (e.g., silence) expresses a way of thinking and interacting (Ochs, 1986). Given this orientation, individuals who have a strong desire to be accepted as members of a new linguistic community must interact with that community.

The research questions this study seeks to answer include: How does an online, synchronous, voice-enabled environment facilitate language learning? How should each class be designed to encourage collaborative learning? What kinds of interactions occur?

METHODOLOGY

To explore how interaction enabled through online, voice-enabled synchronous communication facilitates language learning, the grounded theory approach developed by Glaser and Strauss (1967) was used in this study to generate a theory from data collected because, as yet, no theory exists for language development in a synchronous, voice-enabled online environment. This is a preliminary study based on initial findings of a theoretical sample of 18 informants ranging in age from 20 to 35. Data collected were coded using AtlasTi,, and constant comparison was used to examine the data and place it into categories according to their relationships with each other to allow themes to emerge. As participant observers, we took care to view the data with respect for the Chinese culture and the beliefs of Confucianism that underlie education in China and Taiwan.

Data Collection

The primary data for this study includes data collected between October 2003 and November 2004 through interviews of six Speak2Me (S2M) Live USA students, ten teaching assistants, and two S2M staff members. Interviews were conducted in order to capture the data through the words and voices of the participants. Interviews were semi-structured and conducted face-to-face in Taiwan, through Yahoo Instant Messenger Voice Chat, and through e-mail. The data collected was triangulated using teacher field notes, teaching assistant notes, Speak2Me administrative policies related to teaching and providing learner support, and information related to standardized tests that certify English proficiency.

Analysis and Results

The data collected was analyzed using grounded theory, which uses a constant comparative method of data analysis. During the process of open coding the data, we found that through synchronous technology, the role of the English language learner changes from isolation to connectedness, from unaware to informed, from passive to active. The impact of the connected, informed, and active learner is manifest in many ways. Our informants reported having access to an unprecedented number of ways to learn English—after-school cram school, EnglishTown on the Web, private tutors, English foreign language magazines sold on newsstands, CDs, and television and radio programs. While many opportunities to read and write English exist, there are fewer opportunities to hear English spoken by Americans or other English-speaking people. Informants commented that often nonnative English speakers teach English classes and they mispronounce words.

Several informants stated that often the content of the English lessons is boring. Frequently content is another repetition of lessons previously studied throughout grade school, middle school, and high school. Jason remarked that content on Chinese dynasties is covered in their history classes and repeated in their English classes. Using English to study Chinese dynasties in a Chinese classroom provides an opportunity to use English vocabulary. Yet such a study is outside the context of a conversation with English speakers. Jason relayed that with S2M Live USA, learners enjoy articles about current topics such as sports, new technology, celebrities, movies, health fads, and other topics relevant to American culture. When the articles stimulate learners, discussions ensue around topics to which the students feel connected.

Informants said they enjoy learning about the ordinary events of life as shared in the virtual classroom. Even though learners can read about these life events, they enjoy talking about them with Americans. Through the discussion of the articles, teachers and learners exchange stories of enjoying similar things in life—celebrating holidays, weddings and births, their favorite coffees and teas, and favorite local specialties. For example, in a lesson that discussed American baby showers, students shared Chinese and Taiwanese traditions. Interacting synchronously gives learners access to a culture's stored knowledge.

While the unique differences in Chinese and American traditions, food, celebrations, rituals, and other topics discussed provided interesting topics to discuss, the discussions took place within a context that both American instructors and Chinese learners and teaching assistants could identify with and relate to—the classroom. The classroom setting, even though virtual, provided a representation for how to participate and exchange information in a familiar setting. Jason expressed the need for having an image or representation of the topic of a lesson. Jason mentioned that when neither he nor his relatives had experience with the topic of a lesson, he could not find the words to participate in the discussion. Initially, both American instructors and Chinese learners were uncomfortable in the classroom as the American instructors expected the Chinese learners to speak at will as students do in American brick and mortar classrooms. Moreover, American teachers were initially uncomfortable with the long, reflective pauses in the synchronous voice communication. However, as time has passed, instructors and students have become more comfortable interacting spontaneously and collaboratively, at times with the students greeting each other at the start of the class and prompting one another when they have difficulties.

Despite prevalent access to technology and a desire to improve one's self, many individuals have a basic fear of speaking English with native speakers. Jason observed, "We Taiwanese—if we can't speak English very nice, very fluent—we want to learn English and speak, but we are afraid. We are afraid to talk with foreigners because we are afraid if I can't speak the proper words or listen to it." Results suggest that communicating using a synchronous Internet connection lessens some of that fear. Because students, teachers, and teaching assistants do not see each other face to face in the virtual classroom, novice speakers said they felt more comfortable speaking. Lee mentioned feeling "nervous to join the class," yet participated in a number of lessons. Lee said that the ability to use the chat box instead of being forced to speak aloud was a helpful feature in lessening her anxiety.

Conversely, some students will use the technology as a reason for not speaking or participating beyond typing comments into a textbox. Teaching assistants and students interviewed spoke of some students typing in the textbox that they "do not have a microphone that works", when in fact they were not experiencing such problem.

Informants stated that Chinese and Taiwanese children begin studying English in elementary school. Many reported attending cram schools after school, often until university. Moreover, they said that they were never really interested in learning English until they reached university level and began planning for a career. Proficiency in English is seen as a means to good jobs, opportunity, and access to information on the Internet. They want to be understood, use slang and idioms correctly, and speak English, not *Chinglish*. Some informants planned to attend school in the United States; others looked forward to travel in the United States, and still others planned to work in a country where the dominant language is English. During the summer of 2004, Richard took a job as a camp counselor in a northern state in the United States. He was hired for the position in part because of his English language fluency. Upon his return to Taiwan, he was in the Speak2Me LiveUSA classroom the very next day, reporting on his adventures, not the least of which included calling his mother the day after arrival and asking her to send his warm jacket. "I'm from the tropics, and this was like winter even though it was summer!" he exclaimed. Two observations can be drawn from this story. One, that Richard felt enough of a kinship to his teacher, teaching assistant and fellow students to join a class immediately upon returning home, and two, that his English had improved.

The Taiwanese teaching assistants also responded in the interviews that they wished to remain proficient in English. They had traveled to the United States, Australia, Canada and England, and obtained jobs based on their ability to speak English well. When they returned home they found that they, too, had limited opportunities to speak English with native speakers, and feared losing their ability to speak fluently. John said that becoming a teaching assistant for Speak2Me was not only a good opportunity as it allowed him to "keep

using English at a more meaningful level, rather than just say 'Can I have a chicken sandwich?' Without the opportunity to speak English online, John said he would "not use it, period."

DEVELOPING A GENERAL THEORY ABOUT LANGUAGE DEVELOPMENT AND SYNCHRONOUS TECHNOLOGIES

Developing a general theory about language development through the synchronous communication of VoIP through the Internet requires joining the fields of ethnography, CSCL, computer-assisted language learning, distance education, and language development. Each of these fields offers its respective theories pertaining to the interaction of teachers and students through the Internet while learning English. In its Joint Policy Statement, CALICO declared in 1999 that "the field of CALL is inherently multidisciplinary" (CALICO, EUROCALL, & IALLT, 1999).

One field in which researchers have been describing, speculating, accumulating facts, and creating guiding theories for more than 40 years is language development (Bohannon and Bonvillian, 2001). Ochs (1986) suggested that the development of language is modeled by communication with others as sociocultural information is generally encoded in the organization of conversational discourse. Language learners acquire sociocultural information as well as situationally appropriate ways of turntaking, speaker selection, interruptions, and conversational sequencing, along with grammar, vocabulary and pronunciation. Vygotsky (1986) wrote that language is a tool to develop thinking. Studying lists of vocabulary is not language learning in and of itself. Language provides the entrance to a culture as it informs the learner how thought is structured in that culture.

Computer Assisted Language Learning (CALL) Facilitated by Synchronous (Chat/VoIP) Technologies

To facilitate learning when learners, teaching assistants, and teachers are separated geographically, communication among the participation is mediated by technology. For over 20 years, computer-assisted language teaching has been used to teach foreign languages, with the past decade in language learning theory seeing a shift from highly guided to a learner-centered, constructivist learning environment (Ruschoff, 2002). The new technologies,such as those afforded by synchronous VoIP, offer great potential for innovation in CALL. Indeed, selected communicative behaviors can reduce perceived distance between people. Through asking questions, addressing each other by name, initiating discussion, and sharing personal examples, a sense of psychological closeness (Woods & Baker, 2004) is perceived. Gunawardena and Zittle (1997) describe humanizing communications between individuals in computer-mediated environments as a predictor of overall learner satisfaction.

Development of a Virtual Community

Supporting one another in a non-judgmental way leads to community, sharing, trust building, and a sense of belonging that enables individual learners to be risk takers. Wenger (1998) wrote

> "[t]he concept of practice connotes doing, but not just doing in and of itself. It is doing in a historical and social context that gives structure and meaning to what we do. In this sense, practice is always social practice. It includes the language…[and] the implicit relations… (p. 47)"

When children begin learning a second language with friends, they are usually at a beginning level (e.g., "throw me the ball"). Yet adult language learners usually do not get the chance to interact at this level. Instead, adults are often in situations where greater language fluency is demanded of them, such as explaining where they need to go, or talking with teachers about their children. In the online synchronous classroom, adults and children are able to interact in a safe environment, with no pressure to speak. Gray & Tatar (2003) examined Tapped In to understand how symbolic systems mediate interpersonal interactions and refer to shared cultural models. In their case study they found that their participant's use of chat allowed interpersonal interactions inside group boundaries. Likewise, students, teaching assistants and teachers in LiveUSA routinely use the text box to exchange greetings, clarify vocabulary, and otherwise communicate informally. This informal text-based communication is enhanced by the use of VoIP, which provides the opportunity to listen and respond verbally to others, adding nuance and depth to meaning making and relationship building.

Limitations

Limitations of this study must be identified. As participant observers who have participated as online instructors since Spring 2003, we acknowledge our prior, tacit knowledge and its impact on our theory development.

Other limitations are the self-selection process that most certainly occurred as the result of the synchronous nature of this language learning program. Individuals who are not technologically savvy and/or lack the time to learn new technologies may have found working in the online LiveUSA environment too difficult to master. Therefore, our sample is limited to those who possessed the requisite computer skills, access to high speed broadband connections, and patience necessary to tackle new technology.

Future

As the virtual community has formed, roles have changed. The pattern of interaction is becoming group based, and the question is "What is the right combination of task, people, and technology?"

CONCLUSION

Our initial results suggest that synchronous VoIP technology facilitates language learning across cultures through stimulating virtual classroom interaction through the use of engaging content and collaborative teaching methods. Online language learning offers many benefits—contextualized interaction with the target culture in a safe learning environment. The ability to use synchronous (real-time) voice and chat technology engages learners in the language development process, regardless of ability or level of anxiety. Students are able to learn idiomatic American English in a location of their choosing, making learning English as well as maintaining fluency accessible for many learners who otherwise could not attend classes.

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