

A Virtual Chinese Language Class in Second Life: Lessons Learnt from a Two-Month Pilot Study

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Abstract: Authentic context and active social interaction are two critical factors in the success of foreign language learning. Second life (SL) has been viewed as an attractive platform with potential for foreign language learning because of its virtual authentic real context. However, simply moving students to SL guarantee neither students' active involvement and rich interpersonal interaction nor effective learning outcome. In a two-month pilot study of Chinese learning and teaching in SL, analytical results indicate that there is still more needed to do in SL to help create a more active Chinese language learning environment for Chinese learning and teaching for global learners. While this pilot study focuses on teaching and learning Chinese as a foreign language, the findings and suggestions are also relevant to understanding the related issues of other language.

Keywords: Chinese as a foreign language, second life, social interaction, virtual authentic context

Introduction

Second Life (SL), an online 3-D multiuser virtual environment (3-D MUVE), has been drawing special attention from many researchers and educators since its development in 2003 because of its capability to motivate learners to engage in series of purposeful educational investigation without losing interest and passion [1, 2]. There are over 67,000 regular users spread across 1.5 billion m2 of virtual space by the end of 2009. For foreign language learning, the virtual social community built in SL is especially considered an authentic real environment to help foreign language (L2) learners actively use the target language. As Krashen [3] argued, interpersonal meaningful communication in a natural condition can benefit L2 learners' acquisition of the target language. Van Lier [4] and Long [5] also indicated that learners construct the new language through socially mediated interaction. Long further pointed out that the various modified interaction that native speakers and other interlocutors create are able to render comprehensible input to language learners and consequently enhance learners' acquiring the target language. Consequently, the investigation on usage of SL in L2 learning and teaching has dramatically increased [e.g., 6, 7].

Although many of the researchers studied how L2 learners behave and communicate with other avatars in SL, most of the study used the students they already knew and attended in a regular foreign language class, like English as a foreign language such as [8, 9]. Furthermore, the subjects of the related studies had almost learnt the target language for a period of time. Few studies focused on investigating how unfamiliar students who are total beginners of a foreign language learn the target language in SL. Additionally, many

research seemed to let L2 learners freely explore in SL or talk with other avatars of native speakers. The knowledge about how L2 learners learn in a structured inter-avatar, context-avatar interactive scenario is still superficial and worthy of more researchers' attention and effort.

1. Research Questions and Methodology

The purpose of this study is to investigate how learners acquire Chinese as a foreign language (CFL) in a structured learning scenario in SL. This paper reports the results of a two-month experiment to explore the related issues of learning and teaching CFL in SL, such as avatars' engagement in CFL class in SL, inter-avatar interaction, context-avatar interaction, teachers' perception, structured teaching instruments development, and learning outcomes.

1.1 Research Questions

The research questions are as follows:

- What will a Chinese beginner learn Chinese in SL?
- Is SL the right platform on which structured Chinese class can be developed for Chinese beginners around the world?
- What are the Chinese teachers' view about SL used for Chinese learning and teaching?

1.2 Methodology

The study applied a qualitative approach to explore the related issues of integrating SL in CFL class for Chinese beginners. Both teaching journal and video data were collected and analyzed: a journal of teaching activities, CFL learners' behaviors and participation, and inter-avatar interaction; and the learning process was recorded to help understand what components are essential to CFL beginning class in SL.

1.3 Participants

Eight volunteers with beginning Chinese language ability from seven countries participated in the Chinese class. Two Chinese teachers cooperatively taught in this pilot study: while one taught the class, the other helped record the learning process. Table 1 is the information about the class and the participants. From Table 1, we can see that the participants were from Asia, Europe, and South America, and they spoke six different native languages. Most of them had no experience with Chinese except for one who had two months of learning before. Furthermore, the Chinese teachers did not know those students until they joined the class.

1.4 Virtual Context and Instruments

The scenarios of SL used in this study were conducted by Institute for Information Industry, which include a restaurant, an airport, and a hotel as shown in Figure 1. In these scenarios, five teaching units were developed and each was taught for a two-hour period. The second column of Table 1 showed the teaching focus of each unit. Figure 2 is some examples of the two teaching units, Transportation and Food, respectively.

Table 1. The information about the class and the participants

Date (Taiwan time)	Unit theme	Participants			
		Gender	Nationality	Native Language	Chinese Language Ability
11/17/2009 (12:30-14:30)	Check in a hotel	Male	Korea	Korean	Beginner (with two months of Chinese learning experience)
11/20/2009 (13:30-15:30)	Chinese Culture (famous landmarks in Taiwan and Chinese lucky symbols)	Female	The Philippines	English	Beginner
11/21/2009 (10:00-12:00)	Food (Night market)	Female	England	English	Beginner
11/21/2009 (13:30-15:30)	Location & Nationality	Male	Indonesia	Indonesian	Beginner
11/23/2009 (10:00-11:00)	Location & Nationality	Male	Vietnam	Vietnamese	Beginner
12/09/2009 (10:00-11:00)	Transportation	Male	Denmark	Danish	Beginner
12/17/2009 (18:00-20:00)	Location & Nationality	Female	England	English	Beginner
12/21/2009 (09:00-11:00)	Food (Night market)	Female	Brazil	Spanish	Beginner



Figure 1. (a) the restaurant



(b) the airport



(c) the lobby of the hotel



Figure 2. (a) an example of unit Transportation



(b) an example of unit Food

1.5 Procedures

The classes took place from November 17th to December 21st in 2009, with eight 2-hour periods in total conducted during this period as shown in Table 1. Because all the students were new to the teachers, the very first thing to be done in each class is to get to know every participant, such as his/her nationality, native language, and Chinese language ability. Setting up the computer equipment to be used by the participants was also an important thing to be confirmed first. Then the teacher asked some related questions to attract and motivate the participants. As soon as the participants became aware of the focus of the class, key sentences and vocabulary were introduced to help the participants express their idea or responses in Chinese. Given their lack of knowledge in the Chinese language, corresponding PowerPoint slides were used to show the main learning contents of each unit. Moreover, a Chinese input software developed by IQ Technology Company was used by the teachers to type Hanyu Pinyin of the Chinese words or sentences due to the participants' low

Chinese language level. After some text-based practice, the teacher then guided the participants to practice what they just learned via avatar-context interaction. Then, the participants and the teachers were situated in a specific scenario to proceed in a real context practice. Take the learning activities of unit Transportation as an example. After practicing activities about how to express in Chinese the means of transportation and destination, the scenes changes to a bus stop at the airport and the participant would take the bus to school (as shown in Figures 3 and 4). All the units delivered followed similar procedures described above.

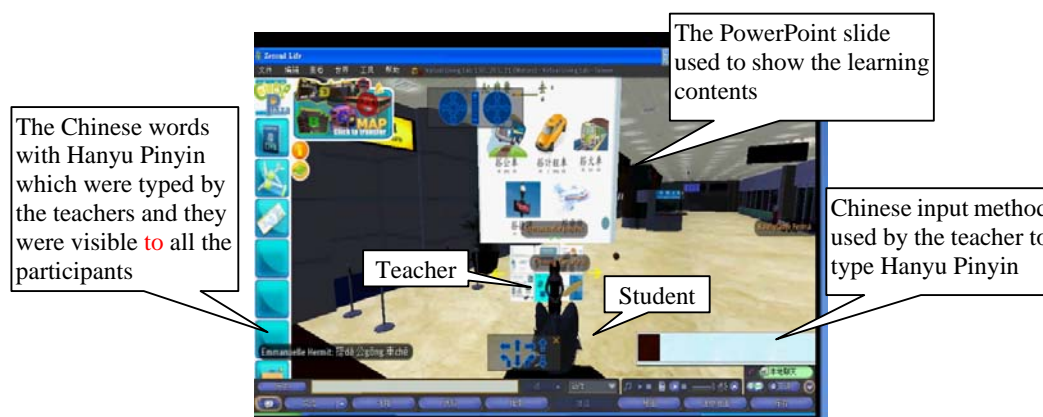


Figure 3. Learning how to say the transportation in Chinese.

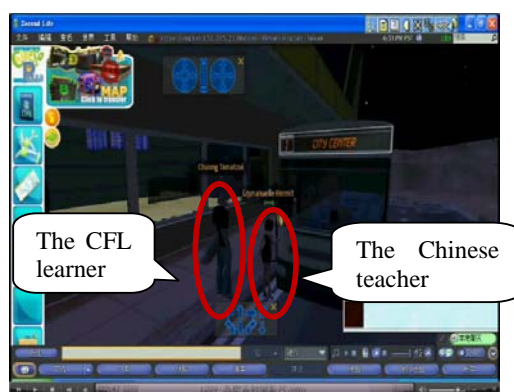


Figure 4. Taking a bus to school.

1.6 Data Collection and Analysis

Both teaching journal and video data were collected and analyzed. After each class, the two teachers kept a teaching journal to reflect on how the class was going, such as what was taught, how the teaching materials were delivered, how the inter-avatar interaction went, how the CFL learner learned Chinese, and how they felt about learning Chinese in SL. In addition to the teaching journal, each class was recorded by screen recording software, Camstudio, for further analyzing. The result of video data analysis could help the researchers have a clearer idea about the effect of different teaching approaches to help CFL beginners learn Chinese in SL.

2. Results

The analysis focused on the following aspects: the effective and ineffective approaches to teaching Chinese in SL, the ready state of SL for CFL teaching and learning based on the

Chinese teachers' point of view, and the learning behaviors of the participants. The results are briefly described in the following.

2.1 The Approaches to CFL Teaching

Three different approaches were used to deliver the learning materials in each unit in this pilot study: functional-notional approach, the audiolingual method, and total physical response. Functional-notional approach focuses on breaking down the global concept of language into units of analysis in terms of communicative situations in which they are used. Interpersonal relationship development is an important issue of approaches. Based on habit formation theory, the audiolingual method fosters dependence on mimicry memorization of set phrases and over-learning. In addition, structural patterns are sequenced and taught one at a time using repetitive drills to help learners master the skills. Regarding total physical response, the method is one that combines information and skills through the use of the kinesthetic sensory system. The learners used their body to act out the words or phrases or sentences that the teachers said.

All the learning materials used in this study were function-oriented for daily lives. Teachers first used pictures shown on the slide and functional sentences to guide the CFL learner into the learning context. Then the learner practiced the structural patterns via different learning activities, such as mimicry, substitution, total physical response, and role play. Specific scenarios are provided for the teachers and the CFL learner to do more function-oriented activities.

Based on results of both video data and teaching journal, we found that all the three approaches were effective to CFL beginners' learning Chinese, especially when the virtual scene in SL well matched the learning contents. An approach is "effective" when the teaching flow goes smoothly and the CFL learners were able to catch teacher's meaning well and consequently were able to respond to the teacher's questions to continue the inter-avatar conversation. The bus-taking activity in the Transportation unit (as shown in Figure 4) took place after the instruction of direction and transportation in the airport. Table 2 shows a discourse fragment between the teacher and the CFL learner from Demark. We found that the CFL learner actively involved in Chinese learning and showed enthusiasm when following the teacher to the bus stop to take the bus to school.

Table 2. The discourse fragment from unit Transport

[00:00:00.00]	Teacher: 你要去哪裡? You can add a country name after it.
[00:00:10.58]	Student: 我要去Denmark。
[00:00:15.60]	Teacher: 你要去Denmark嗎?
[00:00:21.68]	(Student typing: Denmark)
[00:00:24.18]	Teacher: Denmark in Chinese we say 丹麥。
[00:00:29.63]	Student: 我要去丹麥。
[00:00:33.69]	Teacher: 很好, 你要怎麼去?
[00:00:38.77]	Student: 我要搭...去。
[00:00:44.74]	Teacher: If you are going to take plane, 搭飛機
[00:00:49.22]	Student: 我要搭飛機去
[00:01:02.97]	Teacher: 很好, and it's your turn to ask me 你要去哪裡and 怎麼去
[00:01:20.07]	Student: 你要去哪裡?
[00:01:25.64]	Teacher: 我要去學校。
[00:01:28.91]	Student: 你要怎麼去?
[00:01:34.87]	Teacher: 我要搭公車去。 Do you know that there is a bus 公車 next to the airport?我們

	去搭公車。
[00:02:11.30]	Teacher: 那是公車。我們一起搭公車去學校。
[00:02:36.91]	Teacher: 我們要怎麼去學校？
[00:02:41.53]	Student: 搭公車。
[00:02:44.81]	Teacher: ok, then we can get on the bus.
[00:02:57.22]	Teacher: 公車會到學校和醫院。你要去醫院，你要怎麼去？
[00:03:25.37]	Student: 我要搭公車去。

The learning activities in the unit Location & Nationality is another effective example. All the CFL learners followed teachers' instruction very well when they were asked to figure out where something was in the hotel lobby. They could even move directly to the correct point, such as the sofa, the fountain, and the counter. On the other hand, in the lobby of the hotel, it was difficult for all the CFL learners to respond to the question "where are you" asked by the teacher based on pictures of different national flags shown on the slide (as shown in Figure 5). This should be regarded as the result of the learners' lack of background knowledge (about national flags), which is not to be confused with the mismatch between the learning content and the background context. Table 3 is a discourse fragment showing an example of the student's difficulty in expressing in Chinese their knowledge of nationality and location in the UK.



Figure 5. Learning the nation's name and location in the lobby in a hotel

Table 3. The discourse fragment from the unit Location & Nationality

[00:00:00.00]	Teacher: 妳在哪裡？
[00:00:06.22]	Student: 你在哪...
[00:00:10.88]	Teacher: 裡。
[00:00:12.96]	Student: 裡。
[00:00:14.79]	Teacher: 很好， you cannot make the sound is too strong, ok?
[00:00:24.83]	Teacher: Ok, 很好， you made a good pronunciation of 你在哪裡 means "where are you." Ok, 你在哪裡？ I can type the Pinyin for you, 'cause there is no Pinyin on the PPT. 妳在哪裡. Ok, so one more try, 你在哪裡？
[00:00:49.16]	Student: 你在哪裡？
[00:00:55.32]	Teacher: 很好， 你在哪裡？ Ok, then, so where do you come from? Where are you now? I mean in real life, not in Second Life.
[00:01:18.53]	(Student typing: me? UK.)
[00:01:21.08]	Teacher: UK, 英國. Ok, so that you can say, "我在英國" is just like here, I can type for you.
[00:01:31.65]	Teacher: Ok, you can use... If someone asks you 你在哪裡, you can answer the real place you are in, the country, ok? So, see the flag of your country. You can say, "我在英國" means "I am in the UK." Can you repeat? 我在英國。

[00:01:58.39]	Student: 我在英國。
[00:02:04.99]	Teacher: uh, pretty good, 很好。So, it's 英國. The first word "英" is first tone. 我在英國，one more try!
[00:02:20.75]	Student: 我在英.....(Teacher：國)國
[00:02:33.20]	Teacher: It comes from the back of your throat and sounds like this "ㄍ", "g" sound, 國
[00:02:41.19]	Student: 國
[00:02:42.90]	Teacher: 很好，很好，good. So, ok, see the flag of China? In this sentence pattern, you can put a country's name after "在". It means I am somewhere. So, if I am in China, this is the flag of China right? China is called "中國".

Although the approaches used in this study were well-applied by the teacher in the virtual context to guide the CFL learners, there were still some problems. The learners' poor pronunciation was a major one. All the learners are Chinese beginners. They were unfamiliar with the tones and pronunciation of Chinese characters, words, and sentences. Watching the teacher's face and mouth movement is a usual method to help CFL learners learn Chinese pinyin system. But it is almost impossible in this teaching environment. Even when the teacher used the Chinese input software to type the pinyin symbols on the screen, it still was not an easy task to help the learners to pronounce correctly. In addition, the overly public virtual world was another problem. A case showed the difficulty in class control when a guy appeared in the system, and after talking to the learner, the stranger and the student left the system together. The class on December 9th 2009 only lasted about one hour, leaving the teacher not knowing what actually happened in the virtual class.

2.2 The Ready State of SL for CFL Teaching

Is SL ready for CFL teaching and learning? How about for the CFL beginners? The answer is "yes" and "no". For the answer "yes", the Chinese teachers thought that the virtual scenes in SL are able to provide a promising environment in which the teachers can easily lead the CFL learners to limitless learning. They can see objects that cannot be reached in real life, go to various places, meet Chinese native speakers, or experience unusual events, instantly and freely. Regarding the answer "no", as mentioned above, teachers' demonstrations of pronunciation with clear mouth motions are important for Chinese beginners to catch the features of Chinese pronunciation. Although the avatar in SL can do many different gestures, a clear mouth motion to demonstrate Chinese pronunciation is still unavailable. In addition, some common and easy gestures which are helpful to language learning are uneasy to do in SL, such as pointing to a person or an object, taking out an object and sharing with others, showing shopping goods with other avatars, and so forth. Consequently, a complete Chinese learning environment is currently impossible for beginning Chinese teaching. The problem could be identified in Table 3. We can find at the beginning of the class, the CFL learners had lots of problems in understanding the meaning of the key sentence patterns and vocabulary, and the teacher used lots of English to explain. Furthermore, cooperative structural discovery learning task is also difficult to implement in SL because of the difficulty of inter-avatar sharing and discussion when the team avatars are in different locations. Cross-culture issue is another problem to teachers and CFL learners in addition to the above obstacles. In the unit of Chinese culture held on November 20th in 2009, some Chinese lucky symbols, such as bats standing for good luck and deer signify prosperity, are difficult for the CFL beginners to understand. In conventional CFL classes, the teachers usually use videos to introduce culture related contents while it is not available in current SL technology.

In a word, SL itself is a potential technology for Chinese learning, but it can be very hard to find what we need. It is still a long way for us to go.

3. Conclusion

In this pilot study of beginning CFL in SL, it was found that the matching degree between the learning contents and virtual scenes in SL has big influence on CFL teaching and learning. In addition, one activity that integrates context with learning activities and has the CFL learners to use the target language in a language task is an effective approach to motivate CFL learners' motivation. In contrast with the promise that SL is an effective CFL learning environment, some limitations of current SL technology in CFL learning also identified the lack of technical support in resolving the lack of using body gestures and mouth motions to aid CFL beginners' pronunciation and comprehension. Cross culture is also a challenging issue for SL researchers. Furthermore, the effective approaches to implementing cooperative learning and structure discovery learning activities for CFL learning in SL are worthy of more attention.

In sum, there is, of course, a possibility and promising future for using SL in CFL teaching and learning. Yet, more efforts should be made to make SL a more suitable environment for this purpose.

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