The integration of Second Life into CFL teaching and learning

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Abstract: In the past a few years, technology has made it feasible to use virtual worlds to enhance second or foreign language learning. The objective of this paper is twofold: first, to explain how the teaching of Chinese as a Foreign language was implemented in such a virtual environment in relation to teaching approaches in a second/foreign language, such as the task-based approach, and the language activities, tools, and resources in Second Life; and second, to illustrate the effects of such virtual pedagogy on English speakers as novice learners of Chinese at a tertiary level in Australia. The preliminary results derived from the pre- and post-test and online survey questionnaires show that virtual worlds like Second Life have a great potential not only to improve the knowledge of Chinese but also to increase learners' levels of interest in learning the language. All in all, this small-scale study proved that it is possible to implement in a virtual classroom the strategies used in L2/FL teaching in conventional face-to-face settings.

Keywords: Second Life, Chinese as a Foreign Language (CFL), virtual worlds, Second/Foreign language (L2/FL)

1. Introduction

The integration of computer-mediated communication into language education has drawn considerable attention from L2 or FL researchers and educators in various language contexts, such as in an English language setting [3] and the learning of Chinese [2]. Amongst numerous virtual worlds, Second Life (SL), a three-dimensional multi-user virtual environment (3D MUVE), has been widely adopted in inter-disciplines [1], e.g., architecture, design, and medical practices. In L2/FL, SL plays an important role in providing a real-life like environment that allows L2/FL learners to engage in meaningful interaction or communication with their interlocutors [8]. To investigate how SL can be considered as an interactive resource to foster learners' capabilities in the target language, some empirical studies have qualitatively and quantitatively assessed the effects of SL on the attainment of L2/FL learners, e.g., [6], [2], [8], [9] and [4]. In an interactional study within a qualitative paradigm, the results of Peterson [6] indicate that the use of Second Life is likely to increase learners' motivation and interest and to give a positive perception of learning English as a foreign language in the virtual world.

Use of the social virtual resources and tools applied in L2/FL language learning contexts underlies the feasibility of examining the social-psychological dimensions of individuals; Wehner, Gump and Downey [8] claim that Second Life can be a valuable resource to foster learners' motivation and to reduce their anxiety in learning an L2. In an

overview of the aforementioned studies, we hope to provide a more thorough view of how the CFL lessons were implemented and how the participating students learnt from the designed lessons in Second Life. Following this, the paper will be divided into two main parts. We will first introduce the implementation of the lessons in Second Life and then discuss the results of the piloting experiment.

2. Methodology

2.1 Research Design

The design of the CFL learning programme on SL consisted of 8 tutor lessons which took place between April and May, 2012, each lasting 90 minutes, that is, 720 minutes in total. Four lessons were taught using the task-based approach (TBA), whereas the other four were taught using strategy-based instruction (SBI). In terms of the chosen learner-centred teaching approaches, we designed language activities based on the principles of the TBA and SBI: the former focuses on language use in a variety of situations where learners perform tasks and interact with their counterparts in order to complete the tasks [5]. The latter helps to promote and transfer strategy use according to various contexts by drawing students' attention to their thoughts in relation to the strategic processes [7].

In the initial stage, a workshop was held online prior to the commencement of the CFL lessons, and the participating students were instructed to familiarise themselves with the virtual platform by creating an account, choosing an animated character and practising using the synchronous communication tools (e.g., voice and text chat). During the workshop, the subjects were assessed according to their abilities in Chinese. In the following 4 weeks, a 90-minute lesson of TBA and another of SBI, took place with two groups simultaneously each week. Two CFL teachers taught in an alternate manner, which means that each teacher had two lessons of TBA and SBI during this experiment. In the last week, all the participating students were asked to undertake a post-project test and complete an online survey.

Table 1 – CFL lessons in Second Life

Weeks	Groups & Teaching approaches	Data & Activities
Week 1	Groups A & B	Administration of pre-test
Weeks 2 - 5	Group A	Two sessions of TBA teaching in Second Life
	Group B	Two sessions of SBI teaching in Second Life
Week 6	Groups A & B	Administration of post-test & online survey

2.2 Participants

This project involved two female teachers of CFL who spoke Chinese as their mother tongue, an undergraduate student (aged 22) and a graduate (aged 24) at the Department of Applied Chinese Languages and Literature at National Taiwan Normal University in Taiwan. Both CFL teachers had done some CFL or CSL teaching online. In addition, four distance learning students (3 men, 1 woman) were recruited from Griffith University in Australia; they spoke English as their first language and were novice learners of Chinese. The four students were split randomly but evenly into two small groups of TBA and SBI.

2.3 Instruments

The research had two main instruments: 1) the pre- and post-tests had word recognition

and gap fills based on the participants' textbook. For instance, in the word recognition, after the vocabulary 'fùjìn'('附近' 'nearby') was heard, students needed to recognise and choose its *pinyin* in a written form from a list of options; and 2) a questionnaire survey was composed with three main components, namely, using SL tools, and evaluating CFL learning and teaching in SL. There were 10 questions in total, including 1 open and 9 structured questions. The structured type was using a 5-point rating scale, from 1 to 5, from 'never applicable' to 'most applicable' for questions such as, 'I found Second Life useful for improving my Chinese learning'. The other type asked respondents for any comments and suggestions about this CFL programme.

2.4 Lesson Design

Together with the guidelines and principles of TBA and SBI for CFL, lessons were set up and implemented in the virtual classroom, a free and open source where students and the teacher were represented by the characters or avatars using synchronous communication in SL (see Figures 1 and 2 - the land called Chilbo Education Village Sandbox was provided by Chilbo Community, Figure 3 – Monash Chinese Island). Avatars can talk via voice or text chat, and walk, fly and teleport from one location to another. This research consisted of 8 CFL lessons conducted in Second Life, with TBA and SBI being used in four each with two groups of students. Every lesson had one topic and all of the lessons were conducted in the virtual world. Whereas CFL students accessed SL from anywhere in Australia, CFL teachers delivered the virtual tutorial lessons in Taiwan.

Fig 1: A pre-task activity   Fig 2 – A language task   Fig 3 – At a restaurant

Only a TBA grammar teaching lesson will be demonstrated in this paper due to the constraint of the space here; the topic was '我來介紹一下.' ('Make an introduction'), which required students to use the target language as they needed to work collaboratively to complete language tasks in a meaningful context. An overall objective of this task was that students practised listening skills and word order (e.g., declarative and interrogative sentences) in Chinese. Initially, the teacher used a whiteboard to give an example and instructions for the pre-task activity, making sentences and opening the boxes (see Figure 1) that allowed students to interact with the objects. They formed sentences according to the Chinese words, e.g., '工作' (job) and '父母' (parent), given in the notecards embedded in the boxes. The teacher first conducted controlled practice by modelling sentences or asking questions and elicited answers from students. In the second stage, students recognised wrong and right sentences by playing a game. When students had decided which sentences were correct or incorrect, they pressed a buzzer to give their answers. In the last stage, students were 'teleported' to a restaurant. The teacher first introduced herself and initiated a conversation with a student by asking questions like '你是那一國人？'(Where are you from?). Finally, the teacher corrected students' utterances and provided feedback on their output.

3. Results and Discussion

As the implementation of CFL teaching in SL in the preceding section shows, this pilot study further investigated the effect of CFL learning in SL by examining the subjects' performance in Chinese and attitudes towards learning in the virtual environment. First, the four participating students were pre- and post-tested on some language abilities in Chinese. The scores of the post-test showed an 18% increase on those in the pre-test and this indicated that the SL tutorial teaching had benefited the growth of the novice learners' knowledge in Chinese. Secondly, the responses of the CFL learners derived from the questionnaire survey will be presented in the following matrix table. There were 10 questions in total. Apart from one open question, which will be discussed later, 9 structured were subdivided into three components in relation to CFL learning and teaching in SL and the use of SL tools.

Table 3 – Mean scores of the questionnaire survey

Items	Mean scores
A. Learning Chinese in SL	
I found Second Life useful for improving my Chinese learning.	3.3
In Second Life, I don't feel afraid to make mistakes when speaking Chinese.	2.6
I think that learning in Second Life is interesting because it is like a real-life environment.	3.3
Mean score	**3.1**
B. Using SL tools	
Using tools in Second Life is easy for me during the Chinese lesson.	2.3
I am confident in using the tools in Second Life when performing the language tasks.	2.0
I enjoy using SL tools as it is so fun to use a notecard to read, to fly in the air and etc.	1.9
Mean score	**2.1**
C. Assessing CFL teaching in SL	
Chinese lessons in Second Life are interesting.	3.8
Overall, the language tasks for Chinese lesson in Second Life are so interesting.	4.0
I find the activities of CFL lessons in SL useful because they would help me transfer the language skills or knowledge to real-world contexts.	3.6
Mean score	**3.8**

Table 2 indicates the highest mean score 3.8 loaded in C Assessing CFL teaching in SL, followed by the mean score 3.1 for A Learning Chinese in SL; however, the lowest score (2.1) appeared in B Using SL tools. With the numerical results shown above, the participating students gave positive feedback on the CFL teaching in SL as they found CFL lessons and language tasks interesting as well as useful in assisting them in transferring learnt skills from SL to the real-world. However, the participants responded negatively to how they used the tools in SL. This is to be expected, as solving technical difficulties or completing language tasks by using newly acquired skills had made them feel frustrated, and this can be seen from the comments given by the students in the next paragraph.

In addition to the results of numerical analysis presented above, there was an open question that asked the participants for their comments relating to the teaching and learning of the language in the virtual environment. A number of themes emerged from the data; for example, the subjects commented that learning in SL was enjoyable but challenging (see the statements below):

> *I enjoyed the tutorials in Second Life and enjoyed learning with the teachers... I found Second Life challenging (especially with my initial technical difficulties)...*
> *It was a great opportunity to use Chinese though, which I wouldn't ordinarily have had, and I appreciate the considerable work that must have gone in to set it all up and prepare each Second Life experience. I enjoyed the challenge of the interviews in Second Life as it really forced me to remember the lessons*

previously learned. I think that this type of tutorial would be of great benefit to a more advanced student than me as I felt often that I didn't have the vocabulary to keep up. Thank you all for you wonderful patience with us!! (by Student 1)
I think it would be very hard with a large class, especially teaching some people how to use SL, as some people would have technical difficulties…(by Student 2)

Conclusion

In this paper, we first discussed the feasibility of using SL in language education and stated our research interest and the research methodology. We also demonstrated the CFL tutorial lesson implemented in the virtual environment. Finally, based on the small size of the sample, the research results were discussed in relation to how students perceived CFL learning in the virtual world and the difficulties they encountered. To conclude, the scope of this study is confined to the small number of participants learning in the virtual world and the results of this study cannot be generalised.

Acknowledgment

References

[1] Gül, L. F., Gu, N., Williams, A. (2008). Virtual worlds as a constructivist learning platform: evaluations of 3D virtual worlds on design teaching and learning. *ITcon, 13*, 578-593.

[2] Henderson, M., Huang, H., Grant, S., & Henderson, L. (2012). The impact of Chinese language lessons in a virtual world on university students' self-efficacy beliefs. *Australasian Journal of Educational Technology*, *28*(Special issue, 3), 400-419.

[3] Jackson, D. O. (2011). Convergent and divergent computer-mediated communication tasks in an English for academic purposes course. *TESL-EJ*, *15*(3), 1-11.

[4] Jauregi, K., Canto, S., de Graaff, R., Koenraad, T., & Moonen, M. (2011). Verbal interaction in Second Life: towards a pedagogic framework for task design. *Computer Assisted Language Learning, 24*(1), 77-101.

[5] Nunan, D. (1995). *Designing tasks for the communicative classroom*. Cambridge, England: Cambridge University Press.

[6] Peterson, M. (2010). Learner participation patterns and strategy use in Second Life: an exploratory case study. *ReCALL*, *22*(3), 273-292.

[7] Rubin, J., Chamot, A. U., Harris, V., & Anderson, N. J. (2007). Intervening in the use of strategies. In A. D. Cohen, & E. Macaro (Eds), *Language learner strategies: 30 years of research and practice* (pp. 141-160). Oxford, England: Oxford University Press.

[8] Wehner, A. K., Gump, A. W., & Downey, S. (2011). The effects of Second Life on the motivation of undergraduate students learning a foreign language. *Computer Assisted Language Learning*, *24*(3), 277-289.

[9] Yang, Y. F. (2011). Engaging students in an online situated language learning environment. *Computer Assisted Language Learning, 24*(2), 181-198.