## Foreign Language Acquisition in a Multi-User Virtual Environment

Puji Rahayu, Universitas Islam Indonesia, Indonesia

The Asian Conference on Technology in the Classroom 2015 Official Conference Proceedings

#### **Abstract**

Learning a language is best achieved when learners can practice the target language in a natural context, or immersed in the target language culture. This will help their L3 acquisition process. Yet, when living in the target country is not possible, a virtual environment depicting target language culture needs to be developed. This paper is to present foreign language acquisition process in Second Life, one of multi-user virtual environment. It is a case study involving four L3 learners enrolled in a virtual class in Second Life called Language Lab, where they can join a formal course. Learners, represented with their avatars, participated in formal classes, virtual practice, and free activity in Second Life. The learners' activities were videotaped to observe their online participation in those activities. The video was then transcribed, coded, and analyzed. Result shows that living in Second Life help them acquire foreign language while communicating with others in a series of engaging activities. This acquisition happens due to the affordances of Second Life which can provide experience naturally communication, improve motivation, provide input and output opportunities, and lower communication anxiety. The research also shows that learning foreign language in Second Life is more effective, though needs more time. Despite the success, further research needs to be done about the exact time and appropriate setting for the target language transfer in the real life and research with larger participants to triangulate the result.

Keywords: L3 Acquisition, Second Life



#### Introduction

Second/foreign language acquisition is a process of learning second/foreign language undergone by a person (Gass & Selinker, 2008). Unlike first language acquisition during childhood, second or foreign language acquisition most likely happens when the learners are already adult. Many people, however, believe that acquisition is more successful when dealing with communication skills since it can leave the new acquired skill or knowledge last longer in the brain than that of learning. Yet, can acquisition happen more often when learners do not live in the target language countries?

The existence of context in the target language is a vital role to language acquisition. People who are exposed to target language will eventually master the language, though not in perfect grammar. Context will help learners experience natural authentic communication. It is natural authentic communication which will help language acquisition, not direct instruction (Krashen, 1981). In vocabulary learning, the L2 learner, unlike the child acquiring its L1, cannot significantly expand his or her vocabulary solely through exposure to the language input. The exposure to L2 input is often limited to the classroom context. The input may be increased by reading (cf. Ellis, 1997) or listening (Rivers, 1981) in the target language. But these activities, although undoubtedly useful, do not guarantee the development of rich vocabulary. Similarly, formal teaching of vocabulary has its limitations, for, as Rivers (1981: 463) claims, 'vocabulary cannot be taught'.

# **Multi-user Virtual Environment (MUVE)**

There are some different definitions of MUVE depending on from which perspective the person defines. Wikipedia defines MUVE as "Multi-user virtual environment, or usually called virtual world, is a computer-based simulated environment intended for its users to inhabit and interact via avatars. These avatars are usually depicted as textual, two-dimensional, or three-dimensional graphical representations.... The computer accesses a computer-simulated world and presents perceptual stimuli to the user, who in turn can manipulate elements of the modeled world and thus experiences telepresence to a certain degree. Such modeled worlds may appear similar to the real world or instead depict fantasy worlds. The model world may simulate rules based on the real world or some hybrid fantasy world. .... Communication between users has ranged from text, graphical icons, visual gesture, sound, and rarely, forms using touch and balance senses. Massively multiplayer online games commonly depict a world very similar to the real world, with real world rules and real-time actions, and communication."

Second life is one of multi-user virtual environments created by Linden Lab, based in the United States of Ameria. Second life is a graphically rich, persistent online immersive 3D environment which users enter via an avatar, while sharing a technological heritage with massive multiplayer online games, SL differs from them in that it has no set goals, little pre-determined content and no predetermined roles. The majority of the content in SL (buildings, landscapes, etc.) is user created and users can chose any role they wish. It is these two characteristics that also provide educators with the ability to create environments and scenarios highly tailored to their

specific pedagogical needs (Grant, 2008). This research was taken place in Language Lab, a virtual place in Second Life.

In Second Life people can interact with other avatars with different modes ranging from text chat to voiced calls, which can be done privately or in group. When they what to communicate with many people in a certain region, they can just type on the chat or speak by holding the speaker icon while speaking. All people in the region will know the chat. Yet, when they want their conversation become private, they can chat with the intended people.

Besides such communication above, people can also play music, video, and even share presentations with third party-software. As a teacher, we can also share hand out via "note" just like sending emails to the students. Students can take the note by right clicking and saving the note from the teacher. In the development of Second Life, there are many more options that we can do in Second Life.



Figure 1. Places in Second Life

### Method

The data was taken from that of the previous research on Speaking Self-efficacy and English as a Foreign Language: Learning Processes in a Multi-user Virtual Environment (Rahayu, 2012). Four UII students taking English classes at Second Life attended formal classes at Language Lab with teachers from different countries. Students also joined some practice classes where a tutor guided students in virtual places to do some life transactions. They bought clothes to wear on their avatars; they chose from the display, bargained, and paid with linden dollar, the currency in Second Life.

Their conversations were recorded with Snagit, transcribed manually, and coded based on the acquisition issues. Learners were interviewed based on the acquisition signal from the transcript. The interview was carried out both offline and online via Second life, Facebook, and Yahoo messenger.

### **Natural Authentic Communication**

Learners attending classes in Second Life experienced authentic communication throughout the course. They communicate in English since they need to convey some messages in their conversation so that they are successful in meeting their purpose. Learners feel that they are given ample time to use the language in the real communication, where in the classroom context they do not have the same opportunities in natural context.

Natural authentic communication supports foreign language acquisition in that learners acquire the language unconsciously. They gain new vocabulary and skills while having meaning negotiated in their communication. The example below shows one participant acquiring new vocabulary while communicating in the target language.

- P3 : Sorry Jaz, may I ask something? what about understand to .... to other personal position. I think It's some kind like er....show our understanding about... yeah, what? erm .... show that we understand about that position
- J : I disagree with you there...You've to be very careful if you said er... I'm not sure about that.

You could er... it depends how we say it; what intonation you use in your voice. So, it would probably it taken more as a bargaining than it could be understanding

"I am not sure about that" (in intonation 1) then that would perhaps understanding if I used that intonation in my voice.

But if I said "I am not sure about that" (in intonation 2) that wouldn't be showing any understanding. That would be certainly about bargaining position

So, I think you should be careful about that you have to sound very understanding

P3 : Ok Jazz, thank you

J:OK

# **Motivation and Foreign Language Acquisition**

The affective hypothesis states that motivation influences foreign language acquisition. Students with high motivation will do better in foreign language acquisition (Krashen S. D., 2009). Learning a foreign language in Second Life increases motivation as one of the participant's mother points out:

"He was very busy lately... He slept very late at night and when I checked he was attending an online class. ...I was surprised one morning when he was already awake and in front of the computer. I could rarely watch my favourite sinetron lately because he was very often in front of the TV watching English programs. Although it disturbed a bit, I was OK because it was always very difficult to ask him to learn English."

The motivation increase derives from the success of the communication they conveyed when interacting with foreign people via their avatars. Participants claim that they are happy knowing that their English is understood by foreign people. This success is called *enactive mastery experience* (Bandura, 1977), which will improve their self-efficacy. Self-efficacy is believed to have the correlation with motivation. One participant states his experience in the quote below. "... I have learned English for so many years but it was the first time I spoke to people from different countries. Wow! I could speak English, I said in my heart. It made me more confident to talk again in English and I become surer that I could speak English. That was the first time I loved speaking in English. You know, I always hide my head so that the English teacher did not call me to talk in the class."

### **Anxiety and Foreign Language Acquisition**

Second life is the most advanced virtual world in terms of graphic quality and immersive capability (Warburton, 2009), where users will be able to experience immersive culture when playing in Second Life. Anonymity is another characteristic of Second Life in that users will meet other users in their avatars so that no one will know their real identity. Research has shown that anonymity will lead to lack of identifiability and weak social feedback, which, in turn, can lead to uninhibited behavior (Kiesler, 1985). This will give them freer computer mediated communication. One participant claims that he becomes more confident when communicating with others despite his physical condition.

Computer-mediated communication allows users express their "true mind, authentic self, unfettered by concerns of self-presentation" (Spears & Lea, 1994). This also happens when participants attended online classes in Second Life. They were not afraid of making mistakes and having conversation in English with foreigners. This helps them acquire new expressions in the target language unconsciously. This characteristic of Second Life helps participants decrease self-awareness, which will reduce one's introspections and concern about how others will react. Two participants give comment on this.

Speaking via Second Life is easier because they do not know me. When I make mistakes, they do not laugh and I can still continue speaking. (P2) People say that my face is funny when talking in English. They often smiles and it makes me laugh a lot when speaking in English. They do not laugh when I make mistakes. I like it. (P5)

Weak social feedback, uninhibited behavior, and decreased self-awareness are extremely relevant -and beneficial- for language learning. Some of the most important barriers stopping students from using the foreign language are related to their inhibitions and their fear of negative criticism.

## **Input Hypothesis**

The input hypothesis states that someone acquires a new skill when he understands inputs which are a little beyond his current skill. In his book Principles and Practice in Second Language Acquisition Krashen (2009) claims that "we acquire only when we understand language that contains structure that is a little beyond where we are now". How is this possible? People understand structure that they do not know yet when they use more than their linguistic competence. They can involve context, knowledge of the world, and extra-linguistic information to help understand language directed at them. Second Life provides a lot of foreign language context from the users that will be very beneficial for the foreign language acquisition process. The inputs might be much higher than their current competence. Yet, they can eventually understand the input while they are communicating with more people (avatars) in Second Life. Thus, Second Life not only gives inputs but also context for the learners to learns new things during their acquisition process.

"Puji, if you could work with Hino while Itha is not here."

<sup>&</sup>quot;Hinomoto, If you can just say Hello to Puji"

The excerpt above is one example of input that a participant got from one user of Second Life. One participant learnt that he can use the word "if" as the replacement of "could you.." Thus, he can use both expressions interchangeably.

In an interview sessions with one of the participants, it is revealed that they do not feel worried when they don't understand some expressions because they can rely on their interactions with other avatars. "Saya sih nggak kawatir Mis. Kalau saya nggak tau apa yang mereka katakan, saya nyante aja. Asalkan saya paham secara keseluruhannya. Tapi kadang tiba-tiba saya dapat jawaban dari apa yang saya tidak ketahuai pada saat saya ngobrol dengan orang lain."

# **Output Hypothesis**

Unlike when communicating in real life, participants can express their feelings more freely in Second Life since they can "hide" their anxiety behind their avatars. This is in line with the characteristic of anonymity of Second Life. One participant even speaks much more in Second Life, which is very rare in the real life. The excerpt below is the example of how enjoying one participant communicates in Second Life.

- P5 : can you hear me? Nah! OK you see on the right bottom of the screen. (could you see in the right bottom of your screen. there should be an inventory button. click on it)
- A : what is the name
- P5 : Yes, look on 'clothing' (V)
- P5 : clothing, you must to expand that folder
- A : i did
- P5 : Yes, you you must go you must <u>expand</u>. try, <u>are you on it? nice!</u>
- A : be concentrated!
- P5: Sorry. OK you just. The picture is like an icon in the name of the outfit. Yes! you have wear your pants and try your clothes! there should be chotles. You must be take off your clothes.
- A : what about my shirt. all of them see me?
- P5 : i will write it down for you
- P5 : yes2. hehe.. ya.. ya look on your inventory! In the clothing folder there should be er.. ya your cloth is there I think. Hehe.. you cannot naked here. hehe..
- A : how can i wear my shirt
- P5 : are you on the inventory window? have click that inventory button?
- A : i did that
- P5 : okay then. Nice! could you see the clothing folder? have <u>expand</u> that folder?
- A : yeah
- A : okav
- P5 : have you expand that folder? Yeah!
- P5 : Hi Rookie, help me! He is confused how to wear wear his clothes. But he can wear wear
- A : okay
- P5 : okay then. <u>There should be</u> some cloth there, shirt or undershirt, i dont know, can u see it? under only? Nah. Okay, right click on that
- A : and socks

P5 : <u>nice!</u> Right. try to wear the undershirt; at least you are not naked :p.

right click on the undershirt, and choose wear

A : okay P5 ::)

A : I did that with trouser and socks

P5 : okay.

P5: if you cant find any clothes in your clothing folder, try to find in the other folder, expand and find! or you can find in the library folder

A : but i do not see shirt. Okay I will try. thank you Hino.

This participant can produce this much in Second Life which he cannot do in his real life. In this excerpt, he admitted that some expressions and vocabularies are his "new" inventory that he learnt only after "living" in Second Life. He admitted that he acquired some expressions while attending classes and having interaction with other people via their avatars.

The word "expand" was acquired when he was having conversation with his friend during his experiment of using Second Life. At that time, he wanted to change his outfit and he went to a virtual cloth store in Second Life. His virtual friend, the owner of the cloth store, gave him a free cloth to save in his inventory. When he wanted to wear the cloth, he did not know where to find it. He asked his friend who then asked him to expand his inventory folder. At first, he did not know the meaning of expand but when he finally found the cloth he figured out that the meaning of "expand" is like when he click folder to find what are in the folder.

Another example is when he used "there should be" at the first time. Being interviewed where he learnt this expression, he answered that he just knew it while attending some sessions in Second Life. When he tried to use it, the interlocutor knew the meaning. He said, I was successful in using the expression. "Saya pakai there should be ya hanya kira2 aja Mis. Beberapa kali dengar orang pakai kata itu pada konteks tertentu dan konteks itu kok sama. Yaudah saya piker, kenapa ga coba pakai aja ekspresi itu. Dan, pas kupake mereka paham yang kumaksudkan. Kesimpulan saya berarti saya benar dong pakai kata itu."

### **Conclusion**

The difficulties of finding people to practice with naturally in EFL learning classroom in Indonesia provide opportunities to create or merely use the synthetic environment in a MUVE, which represented real world environment with avatar-based people from all over the world interacting in one screen despite their different physical locations (Rahayu, 2012). This natural communication makes acquisition of foreign language possible due to the affordance of Second Life which can increase motivation, lower anxiety, and provides input opportunity for producing output.

Natural authentic communication is believed to be one main factor in acquiring a new language and Second Life provides this opportunity for people due to the only accepted language in the region is the target language. When they authentically communicate and achieve communication success, they will experience enactive mastery experience, which will increase self-efficacy (Bandura, 1977). Self-efficacy is one main resource of motivation. The higher the motivation to learn the target

language, the more acquisition will take place. Besides, the nature of communicating in MUVE which is through avatars will decrease anxiety since they will not take any account from the feedbacks of corrections given to the users. This will provide more opportunity for the user to produce the target language, which might become input for themselves or for other users.

Despite the high possibility of foreign language acquisition, the exact time and appropriate setting for transfer is still in question. One participant said

It is very difficult to find people to practice English especially with friends. English lecturers also often speak in Bahasa Indonesia not in English. In Second Life we can speak English all the time. So, I don't know if I can practice in real world

#### References

Bandura, A. (1977). *Self Efficacy: The Exercise of Control*. New York: W. H. Freeman and Company.

Ellis, N. (1997). Vocabulary acquisition: Word structure, collocation, word-class, and meaning. In N. Schmitt, & M. McCarthy, *Vocabulary: Description, Acquisition and Pedagogy* (pp. 122 - 139). Cambridge: Cambridge University Press.

Gass, S., & Selinker, L. (2008). *Second Language Acquisition: An Introductory Course*. New York: Routledge.

Grant, S. (2008). Immersive Multi-user Virtual Environments: A new Platform for Foreign Language Teaching and Learning. *the 17th Biennial Conference of the Asian Studies Association of Australia in Melbourne*, (pp. 1-15). Melbourne.

Kiesler, S. e. (1985). Affect in Computer-Meditated Communication: An Experiment in Synchronous Terminal-to-Terminal Discussion. *Human Computer Interaction*, 1(1).

Krashen, S. (1981). *Second Language Acquisition and Second Language Learning*. Oxford: Pergamon Institute of English.

Krashen, S. D. (2009). *Principles and Practice in Second Language Acquisition*. Pergamon Press Inc.

Rahayu, P. (2012). Speaking Self-efficacy and English as a Foreign Language: Learning Processes in a Multi-user Virtual Environment. In M. Piscioneri, T. Islam, J. Peterson, & O. Lee, *Effectively Implementing Information Communication Technology in Higher Education in the Asia-Pacific Region* (pp. 161 - 182). Nova Science Publishers.

Rivers, W. (1981). *Teaching Foreign Language Skills*. Chicago, London: The University of Chicago Press.

Spears, R., & Lea, M. (1994). Panacea or panopticon? The hidden power in computer-mediated communication . *Communication Research*, 21.

Warburton, S. (2009). Second Life in Higher Education: Assessing the Potential for and the Barriers to Deploying Virtual Worlds in Learning and Teaching. *British Journal of Educational Technology*, 40(3), 418.

Contact Email: rahayupuji333@gmail.com