Mohd Ayub A. F. et al. (Eds.) (2011). Workshop Proceedings of the 19th International Conference on Computers in Education. ChiangMai, Thailand: Asia-Pacific Society for Computers in Education.

The Influences of Online Virtual situated environment to Chinese learning community

Joni Tzuchen Tang [a], Yu-Ju Lan*[b], Yao-Ting Sung[c], Kuo-En Chang[d], Hsien-Sheng Hsiao[e], & Tzu-Chien Liu[f]

[a]*National Taipei University of Education, Taiwan.*

[bcde]*National Taiwan Normal University, Taiwan.*

[f]*National Central University, Taiwan.*

*yujulan@gmail.com

Abstract: This research used online virtual environment to create and develop a Chinese learning community. The research wanted to know if the community can help the Chinese learners enhance their oral Chinese communication skills, and if community can influence members' behaviors of their Chinese speaking and teaching. The research used action research to find out that virtual environment can provide a community, and this community can enhance learners' Chinese competence, and future Chinese teachers' instruction and leading skills.

Keywords: Community, Chinese communication skills, virtual environment

Introduction

Graddol [3] has forecasted in the years of 2050 Chinese is still remaining as the world's largest language. Many Chinese learners, outside of Chinese speaking countries, have trouble to obtain learning resources[11], and many language theory believe that learning language should includes, open, epistemic, and scaffolding features[4] [10]. In this case, we have to ask ourselves: How can we embed the language theory belief into the Chinese learning?

According to the demand of Chinese learning market, many online and virtual learning environments have developed. These environments not only can make up the problems of Chinese learners obtaining learning resources outside of Chinese speaking countries, but also learners can adjust their learning progress independently. These environments open an open, epistemic and scaffolding learning space.

This research believe that online and virtual learning environment can provide the needs for Chinese learning market, and the research also study the theory of language acquisition. Many scholars believe that language acquisition is the innate process[1] [4]. If we can input appropriate language in situation, students' language acquisition can be happened[4]. The research believes that language acquisition can be nature and innate, learning can occur in a situational context.

Therefore, the research follow situated learning theory and try to provide an open, epistemic and scaffolding learning community on virtual environment. The purpose of this study showed as followed:

1. The research wanted to see if the community can help the Chinese learners enhance their oral Chinese communication skills.
2. The research wanted to see the community members' behaviors changing of Chinese speaking and teaching.

1. Literature Review

1.1 Language Acquisition

Different theory showed different ideas of language acquisition. The table 1 showed different beliefs in language acquisition.

Table 1 Different belief on Language acquisition

Theory	Belief on language acquisition
Behaviorism	Language can be acquired by stimuli, reinforcement, and operation[7].
Cognitivism	Language acquisition goes through the meaningful inquisition process. Learners would revise their intrinsic language until their oral presentation can fit the external environment [6].
Humanism	Language acquisition is entirely innate. Language learning is the potential of human development; it is a spontaneous progress [1].
Social constructionism	Society itself would provide the language experience; the society can scaffold learners' language and thought [10].

According the statement above, many scholars believe that language acquisition is the innate and social process[1] [10]. Language acquisition is like the concept of i+1. If we can input appropriate language in situation, students' language acquisition can be happened[4]. The research believes language acquisition can be nature and innate, learning can occur in a situational context.

1.2 Situated Learning Theory

According to the belief of language acquisition, the research followed situated learning theory and tried to provide an open, epistemic and scaffolding learning community on virtual environment. Situated learning theory believes that knowledge comes from situation and interaction[5] [8] [9]. The following table showed each scholar's perspective of situated learning.

Table 2 perspectives of situated learning

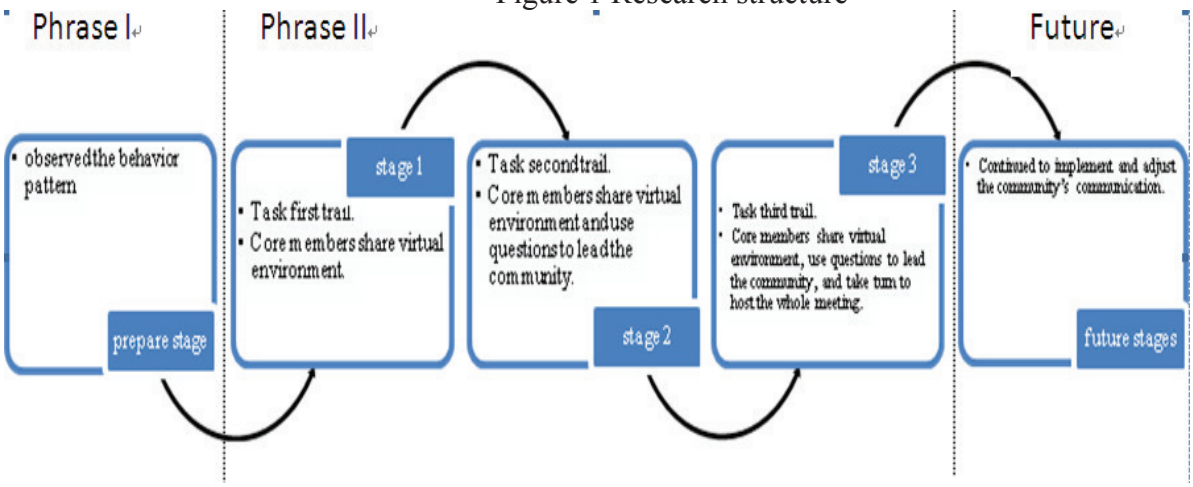
Perspectives	Related terms
Specialized situations have distinctive quality and the instability; therefore, the instructors or educational workers need to make decision in the practical situation [8].	Knowing in action, reflection in action, reflection on action, and reflective practicum [8].
Knowledge cannot occur alone without any situation. If the knowledge is not related to the	Situated action [9]

situation, the knowledge itself would become obscure and lacking details or specifics [9].	
Learning can go through situation to be practical and reflective, but it is more important to have the community in the situation [5].	Community of practice, legitimate peripheral participation, and apprenticeship [5].

2. Research Methodology

This research used action research methodology. The process of action research needs to contain four steps: plans, action, observation, and reflection [2]. According to that, the researcher had developed the structure as followed:

Figure 1 Research structure



The research provided a Chinese learning community, all the conversation is using Chinese to communicate. The community included two groups of people. One group was called core members group. The other group was called peripheral members group. The core members were future Chinese teachers in Taiwan and their background were the universities students who study Chinese language education. The peripheral members were Chinese learners. These learners came from different places, such as Japan, America, and Canada. There were total of five core members and four peripheral members (The researcher is considered the core member and community leader). Before all the peripheral members joined the community, we had tested their Chinese level, most of their Chinese level were considered as Basic to Intermediate level (Test materials followed TOP: http://www.sc-top.org.tw/).

In order to have great communication channel, the community used two technical tools. One is Facebook, the other is Second Life. The Facebook is for asynchronous communication, and Second Life is for synchronous and situational based communication. Each week, the community would have a meeting on Second Life, and the community would have a topic for all of members to interact and communicate.

3. Research results

This research video recorded all the conversation in the Second Life. Each week, the researcher would revise and calculate the frequency of behavior patterns. The behaviors patterns were showed as table 3 and 4.

Table 3 Behaviors patterns for core members

Core members	
Category	Behavior
C1: Explanation	B1: Core members can consider other member's level to explain a topic.
	B2: Core members can listen to others' question and make appropriate explanation.
	B3: Core members can understand members' experience to make a related interaction.
	B4: Core members can adjust other's Chinese grammar mistake.
C2: Assistance	B5: Core members can assist other members to use technology.
	B6: Core members can assist other members who have trouble to finish the whole sentences.
	B7: Core members can assist other members to define the new vocabulary.
C3: Leadership	B8: Core members can prepare a topic to share with others member.
	B9: Core members can care about others.
	B10: Core members can jump in the conversation to open a new related topic.
	B11: Core members can use others' experiences to ask questions

Table 4 Behaviors patterns for Peripheral members

Peripheral members	
Category	Behavior
C4: Expression	B12: Peripheral members can use telegram sentence to talk (only use key words).
	B13: Peripheral members can type Chinese characters.
	B14: Peripheral members can use complex sentences to talk (they combined two or more sentences together).
	B15: Peripheral members can use simple sentence to talk (the sentence has subject, verb, and object).
	B16: Peripheral members can use an adjective.
	B17: Peripheral members can use Chinese to explain the vocabulary.
C5:Listening and Answering	B18: Peripheral members can answer alternative questions.
	B19: Peripheral members can answer the question which only has one correct answer.
	B20: Peripheral members can answer the question to describe experience.
	B21: Peripheral members can answer the question to describe phenomenon.
	B22: Peripheral members can answer the question which needs them to describe thought.
	B23: If peripheral members don't understand the question, they will show they don't understand
	B24: If peripheral members don't understand the question, they will find the problem and ask again.
	B25: If peripheral members don't understand the question, they

Peripheral members	
Category	Behavior
	won't tell until core members found out.
C6: Initiative participation	B26: Peripheral members will ask question initiatively.
	B27: Peripheral members will share information initiatively.
	B28: Peripheral members will share their thoughts initiatively.
	B29: Peripheral members will share their experiences initiatively.

These behavior patterns were observed and calculated the frequency each meeting. According to the behavior patterns' frequency result and the resaercher's observation, the research have found that different phrases and stages have different behaviors and reactions. The table 5 had shown the different phrases and stages' reactions.

Table 5 research results

Phrases	Stages	Members' reactions	Behaviors patterns
I. Pilot study	Prepare	1. Some members got frustrated to the technical problems. *(I am very angry at my computer now!!).* *(I think I will try again next time).* *(I have no idea how to use Second Life).* 2. Peripheral members used Chinese to introduce themselves *(My name is XXX, I learn Chinese for 2 years, I am a OOO's student, it is very nice to see you all).* 3. Core members did not show much sentences when introducing themselves to the community. *(My name is OOO).* *(I am XXX).*	1. Core members showed high frequencies on B5 (around 16-17 times each meeting), however, other behaviors turn out very low (around 0-2 times). 2. Peripheral members showed some frequencies on B12, 13,15, 27 (around 5-6 times each item).
II. Real Experiment	Stage 1	1. Core members shared the virtual setting on related topic, and they used lecture to interact in the community. 2. Peripheral members did not have much chance to interact in the community. *(Core members: The story of Chinese New year is related to…).* *(Core members: It is a building from Greece culture, it has….).* 3. Peripheral members used private message to tell the community leader their	1. Core members showed high frequency on B8 (above 30 times each meeting), but other behaviors turn out zero. 2. Peripheral members showed a little frequency on B18 (around 1-2 times). Most of these behaviors are yes/no answer.

	difficulty to communicate in the community *(I think it is too hard….).* 4. The community leader decided to have a community meeting and discussed the way of interaction. *(In the meeting, leader asked "Do you think it is interested in this community's interaction?" one of core members answered: "No." The leader reflected "Why do you think it is not interested?" core member: "Because the topic is not related to our life, and also we talk too much")* . 5. After the meeting, the community all agreed to use life-related questions to interact.	
Stage 2	1. Core members started to use questions to lead the community's conversation. *(What is your favorite music? Why?)* *(Do you think there is different than the rock music you just listen? What is the difference?)* *(Do you Second Life avatar dress just like you usually dress?)* 2. Peripheral members began to share a lot of experiences and information to our community. *(I don't like to listen techno music, because my ex girl friend love to listen it).* *(My dad is a great guitar player, I am just ok. Do you all want to listen my guitar music?) And he started to get a guitar to play a song for the community.* 3. The community leader and core members discussed and agreed that core members can start to lead and host the meeting, and community leader will become one of the regular core members.	1. Core members began to show frequencies on B1-B4 (around 8-9 times each items) , some frequencies on B6, 7, 11 (around 5 times each meeting) and B9 (one time in one meeting). 2. Peripheral members stared to have a lot of behaviors on B12, 14, 15, 16, 20, 21, 22(around 4-7 times each meeting), B23, 25 shows their needs (around 2-3 times) and shows some initiative participation, such as B27-29 (around 2-3 times).
Stage 3	1. Core members took turn to host and lead the community by themselves.	1. Most core members' behaviors'

		(Welcome to our community, today we are going to talk about lecture time, what did you do for your lecture time?) 2. Peripheral members still keep the same reaction behaviors from stage2. *(I like to play tennis with my classmates, and we usually play at night).*	frequencies still remained the same from stage 2, but B1-4's frequencies grow (around 15-16 times per items per meeting). 2. Peripheral members' behaviors frequencies still remain the same from stage 2.
Future	Future	The meeting will keep continued, and the behavior patterns and their behaviors' frequency will keep calculated in the future.	

Figure 2 Implemented condition for real experiment stage 2

Figure 3 Implemented condition for real experiment stage 3

4. Conclusion

Learning a second language require many aspects, the researchers believe that virtual environment can help Chinese learners and future Chinese instructors to create a community for practice speaking and teaching, therefore, all of the community members are growing and developing. The main purpose of community practice is when all the community members can grow and develop in the same time, and this is the main reason for this research.

Acknowledgments

This research was supported by grants from the National Science Council, Republic of China, under contracts no. NSC 100-2511-S-003-018-, NSC 97-2511-S-003-051-MY3, and NSC 98-2420-H-003-003-2E3.

References

[1] Chomsky (1993). *Language and Thought*. Wakefield, RI: Moyer Ball.
[2] Corey, S. M. (1953). *Action Research to improve school practices.* New York: Teachers College Press.
[3] Graddol, D. (2004). The future of language. Science, 303, 1329–1331.
[4] Krashen, S.D. (1985), *The Input Hypothesis: Issues and Implications*, New York: Longman.
[5] Lave, J. & Wenger, E. (1991). *Situated learning legitimate peripheral participation*. NY: Cambridge University Press.
[6] Piaget, J. (1926). The language and thought of the child. Routledge & Kegan Paul: London.
[7] Skinner, B. F. (1945). The operational analysis of psychological terms. *Psychological Review*. 52, 270-277, 290-294.
[8] Schön D (1987) *Educating the Reflective Practitioner*. Jossey-Bass: San Francisco.
[9] Suchmon. (1987). Plans and Situated Actions. *In The Problem of Human-Machine Communication*. New York: Cambridge University Press,
[10] Vygotsky L. (1978). *Mind in society : The development of higher psychological processes*. Cambridge, MA : Harvard UP.
[11] Xin (2001). *The Chinese language reading strategy and research*. Taipei, National Taiwan Normal University.