A Study on Simultaneous Language Acquisition by Employing Dual-lingual Communication and Strict Turn-taking

Bui Ba Hoang Anh, Kazushi Nishimoto
School of Knowledge Science, JAIST

Abstract: In this paper, we propose a video chat system named BiTak which employs strict turn-taking dual-lingual communication using recording function. BiTak aims to motivate the dual-lingual conversation between Japanese and International students as well as to identify the mutual benefits through this kind of conversation for the need of improving simultaneous bilingual acquisition.

Keywords: Dual-lingual Communication, Strict Turn-taking, Recording Function, Simultaneous Language Acquisition

1. Introduction
Among the global community in which English is increasingly considered the predominant international language, Japan presents a particularly compelling case of learning English. On the other hand, more and more foreigners study Japanese for their profession, language choice or living in Japan. Kimber, L. (2014) recommends providing more opportunities for interactions between Japanese and internationals [1].

Our study suggests building an online environment for both Japanese and internationals to talk freely using both English and Japanese. We propose a video chat system named BiTak that employs strict turn-taking dual-lingual communication using Recording function.

Dual-lingual Communication
Two languages are spoken in the conversation and understood by respective participating parties.

Strict turn-taking
Strictly applies the turn-taking approach by using Recording function.

2. System Overview
Strict turn-taking function
• Click on the Recording button to talk.
• Speaker’s voice will be automatically recorded.
• Others’ microphone will be off; they can do nothing but listen to the speaker.

Text chat function related to each recorded utterance
• A text chat function to each recording link (not to all recording links) to achieve deeper understanding.
• Download all the videos for further reference.

3. User study
We conducted a series of 4 experiments in a group of four subjects including a Mexican student and a Vietnamese student who both speak English as a second language and two Japanese students. The experiment is carried out by two stages: Stage 1 using BiTak without turning on Recording function which also means strict turn-taking is not employed either and Stage 2 using BiTak with employing Recording function and strict turn-taking approach. In each stage, the two Japanese used English while the foreigners practiced Japanese concurrently. We performed the experiment to achieve these following aims: 1) to investigate whether strict turn-taking can be applied to effectively facilitate Dual-lingual Conversation for practicing speaking skill and 2) to evaluate the usefulness of the newly added Recording function for language learning.

4. Discussion
Dual-lingual communication is novel and useful in second language learning, inspiring the sense of studying second language, not just using language to communicate.

Strict turn-taking successfully facilitates the dual-lingual communication. While using BiTak, users can also flexibly change into normal conversation mode whenever they want to quickly exchange ideas.

The importance of recognizing and correcting mistakes by watching videos again was gradually stabilized throughout the series of experiments.

5. Conclusion
In this paper, we proposed a video chat system named “BiTak” to facilitate strict turn-taking dual-lingual communication for language speaking practice. From analyzed results, it is suggested to incorporate all the three features to achieve best outcomes when practicing second language using BiTak: Dual-lingual conversation with strict turn-taking for presentation; Recording link for realizing mistakes; Normal conversation for collecting mistakes and discussion.

Reference