

## Discovering Cognitive Patterns of Online Discussions on Facebook and Messenger

I-Chun Julie Chen

With the increased choice of tools for cross-cultural communication, little is known regarding students' online discussion process, particularly their cognitive patterns in asynchronous and synchronous contexts. Therefore, the current study aimed to explore the effects of integrating literature circles, specifically students' cognitive patterns and perceptions via Facebook Group and Facebook Messenger. Participating English-as-a-foreign-language (EFL) students were trained in literature circle roles to enhance their reading skills for online communication. Topics for online communication were initially extended from in-class discussions to topics of individual interest. Qualitative and quantitative data were gathered and analyzed, including FB postings, student projects, reflections, interviews, and researcher's field observations. A Practical Inquiry Model was used as the primary coding scheme to examine cognitive patterns across two modes of communication. Findings indicated that more off-topic discussion behaviors, followed by exploration, were observed on Messenger than on Facebook Group. More behavior sequences were also found on Messenger. Overall, participating students considered instructional scaffolding, increased cultural knowledge, language awareness, multi-modal communication strategies, and border crossing as strengths for the online communication experience. However, lack of timely response, scheduling conflict, and project-related difficulties were mentioned as weaknesses and challenges.

Keywords: lag sequential analysis, online discussion, cognitive patterns

I-Chun Julie Chen, Associate Professor, Department of English Language and Literature, Chinese Culture University

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Corresponding Author: I-Chun Julie Chen, email: [juliechen@ulive.pccu.edu.tw](mailto:juliechen@ulive.pccu.edu.tw)