DOCTORAL THESIS

Enhancing Self-regulated Learning through Prompts and Modeling: An Action Research with Virtual Flipped Classroom

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ABSTRACT

The overarching aim of this study is to enhance self-regulated learning of upper primary students through prompts and modeling in an extra-curricular program using the virtual flipped classroom mode. Specifically, it studies the effectiveness of prompts and modeling in enhancing students' self-regulation as well as learning outcome and the process of regulating cognition, behavior, context and motivation. Additionally, it explores the perception of students, parents and the teacher on learning self-regulation via prompts and modeling in the virtual flipped classroom.

A quasi-experimental design with mixed methods was adopted to conduct this action research in a local primary school. Questionnaires, students' notes, interviews, log data and lesson observation data were collected to provide a holistic understanding of the outcome and process of self-regulation. Speaking tests were administered to compare the effects of prompts and modelling in enhancing students' abilities of giving a Chinese speech. Interviews and questionnaires were used to explore perceptions of learning self-regulation.

Data analysis includes statistical analysis using Wilcoxon signed rank test, Quade's test and Mann-Whitney U test using SPSS (Version 26), content analysis manually with assistance of Microsoft Excel, thematic analysis with constant

comparison and computing percentage of students rewinding and the average number of occurrence of lesson observation items using Microsoft Excel.

The findings indicate that both prompts and modeling effectively enhanced students' regulation of cognition, context, behaviour and motivation, and modeling was more effective than prompts. Prominent differences were observed between the two groups in the enhancement of regulation of cognition, context, behaviour and motivation in terms of self-efficacy. Process data showed that local primary students successfully regulated the four aspects of self-regulation in the virtual flipped classroom. This study also provided triangulated data showing the transfer of self-regulatory strategies from the pre-class stage to the in-class stage within the virtual flipped classroom. In addition, it shows that students continued to use these regulative strategies in the regular online classes upon completing the course, which implied the transfer of strategies for self-regulation from the virtual flipped classroom to regular online classes. Additionally, the results showed that the learning outcomes of presenting Chinese speech differed between the groups – students learning self-regulation via modeling outperformed those learning self-regulation via prompts. The students, parents and teacher expressed positive views towards learning self-regulation in the virtual flipped classroom as well as learning self-regulation via prompts and modeling.

This study has theoretical and practical significance. Theoretically, it is a pioneering study on enhancing self-regulation in the virtual flipped classroom, comparing prompts and modeling and exploring regulation of cognition, context, behavior and motivation to provide a comprehensive understanding of self-regulation in the virtual flipped classroom. Practically, the study provides implications for learning self-regulation progressively as well as guidelines for effective use of prompts and modeling for learning self-regulation.