

DOCTORAL THESIS

A study of social annotation tool in facilitating collaborative inquiry learning

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Abstract

In twenty-first (21st) century tertiary education, undergraduate study is intended to not only to teach the subject knowledge through direct instruction or lecturing, but also to cultivate and foster students' skills and literacies to suit societal needs. For this reason, it is increasingly important to introduce new teaching and learning (T&L) strategies and web applications (apps) into students' undergraduate study. The introduction of collaborative inquiry learning (CIL) is intended to enhance students' communication and collaboration skills throughout their learning. In addition, by introducing social annotation (SoAn) tools, students are able to bookmark, highlight, annotate, share, discuss, and collaborate on information sources collected by students for their collaborative inquiry learning assignments (CILA).

In this study, a self-developed SoAn tool known as the Web Annotation and Sharing Platform (WASP) was introduced to investigate how the SoAn tool can facilitate students' CIL. The study included 377 students (freshmen or sophomores) from three different courses at a Hong Kong University, Hong Kong Christian University. A mixed-method research approach was employed using four data collection methods. Quantitative data were collected from all participating students through a questionnaire survey, WASP log file (students' actions on WASP), and CILA marks. Furthermore, qualitative data were gathered from selected students in individual face-to-face interviews. The study aimed to ascertain how students integrate and use the SoAn tool in their CIL. This study also investigated whether students think a SoAn tool is useful and effective for their CIL. Moreover, this study examined the correlations between students' perceptions of CIL and WASP, usage of WASP, and their CILA mark. Finally,

this study examined the challenges students encountered when they integrate and use WASP in their CIL.

The results reveal that the integration and usage of a SoAn tool were concentrated in the early stages of students' CIL. Furthermore, the results illustrated how the 'able other (s)' arise in the CIL group to provide information sources that initiate the discussion and collaboration among group members. Based upon the student perceptions collected in this study, the results suggested that students agreed that the WASP functions were useful and effective for CIL in courses that teach elementary Information and Communications Technology knowledge content (ICT-related courses). Moreover, student perceptions on the WASP functions highly correlated with their perceptions of CL before this study and any respective group process experiences. The results also indicated that students' perceptions, SoAn tool usage and learning outcomes (CILA mark) are not correlated, there is a higher chance of reaching correlation between the perceived usefulness of the WASP functions and their CILA mark in ICT-related courses. Lastly, the results suggested that low motivation for learning and using a SoAn tool, the functionality and recognition of a SoAn tool, and methods of processing, discussing, and collaborating on collected information sources were the challenges encountered when students integrate and use a SoAn tool in their CIL.

The implications and limitations of this study are discussed in Chapter 8. Directions for future research and suggestions are provided, which includes introducing SoAn tools in ICT-related courses and enhancing the functions of SoAn tools both for better user experiences and research purposes.

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