

A peer review system to enhance critiquing ability of students in systems analysis courses

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Abstract:

Systems analysis is a core course of information systems curriculum. Teaching and learning systems analysis is a challenging task particularly to undergraduate students in large classes. In this course, students learn modeling skills to represent requirements of information systems using a set of interrelated artifacts or models comprising textual descriptions and diagrams. Critiquing ability is an important course intended learning outcome (CILO) which prepares the students in developing quality artifacts.

This project aims to develop a web-based system for supporting teaching and learning activities targeted to enhance the critiquing ability of students of systems analysis courses and evaluate its effectiveness. The system will provide facilities for attaching annotations at any place in the artifact. In the first stage, the system will support practicing of critiquing skills through a set of pre-developed artifacts. An experimental evaluation at this stage will be performed. The second stage will expand the system to support peer reviewing of artifacts developed by other students. This extension will include facilities for instructors to provide feedback to students. A detailed evaluation of the system, using a specially designed rubric to assess critiquing ability, in a large undergraduate class setting will be performed.

This project extensively employs the results from the research conducted by the PI. Although the proposed system is planned for a systems analysis course, it will be designed with sufficient flexibility to support other courses requiring critiquing ability as one of the learning outcomes. This aspect of system design will contribute towards institutionalization of the developed system.