Chapter XXVII

Assessing Online Collaborative Learning: A Theory, Methodology, and Toolset

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Introduction

This chapter considers the unique opportunities for assessing online collaborative learning (OCL) in both formal (primary, secondary, and tertiary) and non-formal (workplace) education contexts. The chapter provides a theoretical framework, a methodology, and a set of tools for understanding and assessing online collaborative learning and conceptual change. Online collaborative learning (OCL), it is argued, provides hitherto unprecedented qualities for implementing, supporting, and assessing individual and group intellectual progress.

The chapter focuses especially on the unique opportunities whereby instructors, educators, researchers, and students can analyze and assess learning (conceptual change) in OCL environments and applications: that is, online discussion that progresses from divergent (brainstorming) to convergent (conclusive statements) in such educational activities as group seminars, discussions, debates, case analyses, and/or team projects. Examples of OCL applications, such as the design of online student-led seminars, and ways to assess student moderators and student discussants, are included.

Traditionally, assessment is performed once a learning activity is completed in order to determine how accurately the student has retained and can recall the specific knowledge or skill contained in that activity. Conventional classroom approaches emphasize such educational measures as testing of content knowledge through quizzes, exams, and/or essays. The recent focus on educational IT (information technology) has led to development of educational assessment technology that is nonetheless largely a reformulation of traditional approaches based on pencil and paper tests—that is, online quizzes and online tests. Recent IT efforts are primarily aimed at automating conventional testing approaches. The technologies are new only in the sense of assisting educators in preparing and scoring tests by providing such online features as:

- easy-to-build multiple choice quizzes and tests;
- stored questions (or a database of questions) that could be remixed for each new class semester (either by the instructor or machine generated);
- multiple choice quizzes/tests that can be machine graded; and
- links from the test results to a class gradebook.

The assessment of individualized learning activities such as essays is addressed by such new technologies as plagiarism checkers and use of latent semantic-type engines to grade written essays.

Overall, however, these assessment tools are based on a traditional didactic view of learning that emphasizes retention of information and the evaluation of how well a student can recall and represent this information. The focus thus emphasizes learning as a product, at the expense of viewing learning as a process. This means that retention of information (memorizing and reproducing the 'right' answer) is highlighted over knowledge as a process (problem solving or generating new knowledge and solutions).

This traditional didactic approach to assessment is widespread and deeply ingrained in the culture of the classroom and is an integral part of the current “formal” system of education, based on a view of learning as retention and recall of information.

New Educational Opportunities and Challenges

New educational pedagogies—particularly collaborative learning and constructivism—both challenge and enhance the didactic (retention) view of education and emphasize instead a process-oriented focus on collaborative learning and knowledge building.
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