Chapter IX

Testing the Validity of Post and Vote Web-Based Peer Assessment

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Abstract

Two tests of validity were conducted with undergraduate education students on a method of online peer assessment called post and vote. Validity was determined by calculating a Pearson product-moment correlation and corresponding coefficient of determination that compared the average grade assigned by the pre-service teachers with the grade assigned independently by the course instructor. Results of both studies showed that post and vote Web-based peer assessment was valid with these groups, and generalizable to undergraduate classes engaged in similar tasks.

Introduction

Post and vote is a method of collecting and analyzing peer assessment data using off-the-shelf Web tools. This approach emerged in the late 1990s, at a time when colleges, universities, and training organizations had already adopted a Web-based training platform and were becoming acquainted with the features provided in the Web tools. The Web tools included: a bulletin board for posting and replying to discussions, a student
viewing area, a questionnaire tool, a message compiler, online chat, student progress tracking, group project organization, student self-evaluation, grade maintenance and distribution, access control, navigation tools, auto-marked quizzes, electronic mail, automatic index generation, course calendar, student homepages, and course content searches.

Today colleges, universities, and training organizations around the world are using Web-based training platforms to offer students an online education. Since these tools are customarily grouped together under a course name and protected by a password, they can be treated as elements of a “system,” a “Web course management system” (WCMS) (Mann, 1999a, 1999b, 2000a), consistent with systems theory, and the post and vote model is a subsystem, or more accurately a modeling subsystem of the WCMS. More discussion follows about post and vote as a system.

**Trial-and-Error Learning and Bulletin Board Data**

Throughout the late 1990s and 2000, publicity and sales promotions in print and on the Web claimed that their Web tools required minimal technical skill, and said they preferred to let educators apply their own methods of course design to their Web courses (Mann, 1998a, 1998b, 1998c). Consequently: (1) the bulletin board tool was overused, with high volumes of student data being saved in the discussion board for reading and grading; and (2) a trial-and-error method of learning Web tools became the de facto method of preparing instructional materials for student learning on the Web, a method which was later re-defined as “an instructor’s gradual phasing-in to Web course management behavior” (Mann, 2000a, p. 23).

**Instructional Design Inertia**

Around the same time that most of us were sifting through hundreds of student discussions and learning Web-tools by trial and error, familiar models and theories of instructional design were slowly being abandoned by practitioners, and when they were used, were regularly misapplied (Gros, Elen, Kerres, van Merrienboer, & Spector, 1997). According to some experts, instructional design models and theories had become static (Boshier et al., 1997), inert (Yang, Moore & Burton, 1995), unusable (Wild & Quinn, 1998), and simply not workable (Winn, 1997) for prescribing interactive learning.

In sum, this was a busy time for instructors, a lack of enthusiasm for applying familiar models and theories of instructional design to Web-based learning, little real Web tool assistance to count on, and hundreds of board postings to read and analyze.

**Phase Theory and Post and Vote**

It was under these conditions that two frameworks were introduced to help to better explain the situation. First, “phase theory” was published, a descriptive framework for
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