

Implementing an Online Academic Evaluation System

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INTRODUCTION

The explosive growth of networks and the World Wide Web over the past decade has led to increased adoption of new applications by educational institutions. Critical uses of software including courseware such as Blackboard, WebCT, and others have led to an increase in computer literacy amongst faculty and staff. Consistent with this increased literacy, newer applications including the use of the web for tests, surveys, and student evaluation has been increasing. There are many benefits of using web-based surveying and online evaluation techniques (see Table 1). As Mehta and Sivadas (1995) have noted, response times can be reduced from days and weeks to minutes and hours. It is common practice in many universities to have students provide feedback about courses in the form of a questionnaire, at the end of each course. As Felton, Stinson, and Mitchell (2003, p. 2) note, "these surveys are assumed to measure a professor's performance and successfulness in his or her various classes." McGourty, Scoles, and Thorpe (2002, p. 5) cited one of the key benefits as the "immediate availability of data for analysis and reporting and more extensive qualitative responses from students to the open-ended questions." Other studies (see Handwerk, Carson, & Blackwell, 2000; Hmieleski & Champagne, 2000) had similar conclusions. And although not all e-mail users check their e-mail everyday (Kent & Lee, 1999), past research found that e-mail responses generally occurred within the first three days (Comley, 1997; Mehta & Sivadas, 1995).

Strauss (1996) cited an additional benefit to web-based surveying in that the researcher can create surveys

Table 1. Benefits of online educational evaluation systems

•	Speed
•	Time
•	Accuracy
•	Adaptability
•	Anonymity
•	Data Collection
•	Data Evaluation
•	Reach
•	Ability to personalize

that are adaptive – meaning the software can present different questions, as well as audio, video, and pictures based on the users' responses and reactions to questions.

Other benefits include the ability for real time interactions with geographically diverse consumer or respondent groups as well as information servers (Kannan, Chang & Whinston, 2000). Results can be tabulated immediately, and interventions can take place to modify questionnaires, add new links, stop the project altogether. Hmieleski and Champagne (2000) suggested that online evaluation systems would enable faculty to adjust courses more frequently, leading to a better overall educational experience for students. Kannan et al. (2000) noted the value of increased bandwidth and the ability to transmit video and audio enables real-time feedback from respondents that can help research firms produce customized services more rapidly and at much lower cost than traditional research projects. Handwerk, Carson, and Blackwell, (2000) cited the advantage that students could complete the evaluation on their own time, which the authors found led to more comprehensive, qualitative comments by the students.

The process for implementing an online evaluation system has characteristics that are similar to paper-based evaluation systems. Numerous authors have noted that many of the same factors may help increase response rate including advance notification, and personalization of correspondence (Dillman, 2000; Mehta & Sivadas, 1995; Witt & Poytner, 1997). Other variables, including credentials, the e-mail message, subject line, and saliency may also affect response rate. All of these need to be considered when developing an online evaluation system. Additional factors, including the time allocated for completion of the evaluation may also be important. McGorty et al. (2000) noted that at Drexel University, students were given three weeks to complete the evaluation, and that they are sent reminders via email from the system administrator, then the department head, and finally the undergraduate associate dean until they have completed the evaluation. In the same article, the authors noted that Columbia University used a similar approach, over a two-week response window. Online evaluation systems also have a number of potential problems, including "student

concerns for privacy and anonymity, the culture to support online student evaluation processes, and insuring that students are aware of the evaluation process.” (McGorty et al., 2000, p. 7). McGorty et al. added that initial response rates at Drexel were “dismal” (p. 8) and that after the use of “a combination of technology-mediated communications, incentive packages, and internal marketing strategies,” they were still only able to increase the response rate to 50%. They also found that women, and students in their final years were more likely to complete the web-based evaluation than men, or students in their first couple of years of school. Hmieleski and Champagne (2000) added another dimension in noting that faculty buy-in for any evaluation system is critical to student response rate.

This paper examines the implementation of an online evaluation system at a small college in North Carolina. The online surveys used were adapted from paper-based instruments. Therefore the focus of this paper is on the implementation of the system from a technical and organizational perspective. And while the initial impetus was to convert paper-based student evaluations over to an online evaluation system, as the process of implementation moved forward, other applications were identified that were also suitable for an online educational evaluation system.

BACKGROUND ON THE PROJECT

With the rapid evolution of software, many options exist which allow a wide range of users to develop surveys, tests, and evaluation tools without any programming knowledge. Solutions range from open source software available on the web, to web site design tools like Macromedia Dreamweaver and Microsoft FrontPage, to embedded collaborative and communication systems in Microsoft’s .net operating system (Sharepoint) and courseware applications (see Blackboard, and WebCT), and finally, to hosted solutions which allow users to create a wide range of tailor made instruments, or to choose a pre-made template designed for specific solutions. (see *Empliant.com* or *Zoomerang.com*)

ACADEMIC USES OF ONLINE EVALUATION TECHNIQUES

In academia, there are many needs for internal and external assessment of the overall state of the institution and its programs (Table 2). Career services is interested in gathering data on the success of their graduates, as well as

Table 2. Academic uses of online survey instruments

information from employers about their needs from the institution; alumni affairs is interested in maintaining a current database of information about alumni; curriculum review committees seek input from alumni, employers, and students alike to help refresh and renew courses, and curricula; the enrollment management and admissions team may use surveys to gather data from prospective students, and their parents; individual departments within the college may also use the tools for specific, departmental assessment and data gathering purposes. Online, blended, and traditional classes may also use surveys for student evaluations of faculty, faculty evaluation of students (i.e. quizzes, tests, and exams), or for other purposes including market research.

Many colleges struggle to implement any new information system. Finally, government education departments, accrediting bodies, and other stakeholders involved in the institution may require frequent feedback on the overall success of the institution. The biggest challenge lies in the implementation of a system that is easy to use, reliable, and produces the desired results.

The use of computers in research and assessment is well established. The use of online survey and evaluation systems, while frequently used, is still evolving consistent with the rapid changes in technology (Dillman, 2000). Regardless of the method used, there are some common steps that are critical to the proper implementation of any evaluation system:

1. The establishment of goals for the system. This helps insure that the results from the instruments are relevant and useful.
2. Determine the target population(s) and sample size(s) needed for useful results. To ensure external validity, the sample must be representative of the population from which it is drawn.
3. Choose the appropriate methodology to gather the data.

Failure to follow these steps may result in error or provide misleading and useless information.

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