

## **On-Line Course Evaluation**

The Faculty Council performed a limited literature review to determine the experience of universities implementing an online course evaluation system. The following provides a summary of this review.

### **Paper-Based Evaluations**

A national study conducted in the Fall of 2002 found that 90% of the nation's "most wired" colleges still used a paper-based process<sup>1</sup>. Paper-based student evaluations have several advantages:

- Results exist in a permanent, reproducible form
- Is administered in class to a captive group of students with potential for capturing a broad cross-section of students
- Has the potential for a higher response rate than an on-line evaluation system

Paper-based student evaluations, however, have several disadvantages<sup>2</sup>:

- Results are delivered weeks after the term has ended
- Summaries are often ambiguous and fail to provide action-oriented solutions
- Students know that their comments will not be read for weeks (if at all)
- Evaluations are the basis for highly stressful decisions rather than a tool for improving teaching and learning
- Paper surveys are regularly delivered to the wrong place or are not delivered at all.
- Delivered sheets arrive in an unscannable form (In the most recent administration all courses in one program arrived in unscannable form because of damaged sheets.)

### **On-line Student Evaluations**

Since the national survey was performed, several Universities have implemented on-line course evaluations. On-line student evaluations can provide a solution to some of the problems associated with paper-based student evaluations. Some of the benefits include<sup>3</sup>:

- Immediate availability of data for analysis and reporting
- More extensive qualitative responses from students to the open-ended questions
- Enforce uniformity for the evaluation of all courses while providing faculty with the flexibility to add items specific to their courses to address ABET accreditation requirements.
- Students have the opportunity to complete course evaluations on their own time
- Surveys cannot be misplaced
- There is no paper to damage

Implementing an online evaluation process has its challenges. Some of these challenges include<sup>3</sup>:

- Achieving adequate response rates and identifying strategies to improve these rates
- The need for faculty buy-in
- Responding to student concerns for privacy and anonymity
- The need to change the culture to support online student evaluation processes.

## Response Rates

Hmieleski<sup>4</sup> in his survey of the top 200 most wired colleges found that return rates of 30% to 40% was the most pervasive problem among those colleges who had converted to web-based surveys. The response rates for web-based surveys, however, must be evaluated based on the type and quality of survey instrument used prior to the web-based survey.

Drexel University converted from a traditional paper and pencil approach to an online course evaluation process in 1998/1999. The purpose for the transition was the need to meet new accreditation standards which required assessment of 11 student learning outcomes. Prior to the web-based survey, course evaluations were conducted on a voluntary basis, with no formal process for dissemination of results, nor any feedback loop for continuous improvement of the curriculum. When the web-based process began, Drexel University achieved response rates, as low as 10% in one academic term. Table 1 shows the response rates for a three-year period with the highest response rate shown to be in Fall 2001 when a lottery prize incentive was used.

**Table 1. Course Evaluation Response Rates for Drexel and Columbia Universities<sup>3</sup>**

| Term      | Response (%) |          |
|-----------|--------------|----------|
|           | Drexel       | Columbia |
| Fall 1999 | 21           | X        |
| Fall 2000 | 31           | 70       |
| Fall 2001 | 50           | 85       |

Columbia University had a regular, ongoing course evaluation process for several years. The survey and its use had the full approval of the engineering and applied science faculty. The purpose for transitioning to an online evaluation process was to improve the assessment, feedback, and actions taken to advance the quality of academic programs offered. Columbia's web-based survey results are uploaded to a website for student review. The website allows students to review evaluation data by course or professor to guide them in course selection.

Columbia has experienced response rates of 85% or more in their web-based course evaluations. The success is due to a combination of technology-mediated communications, incentive packages, and internal marketing strategies. The Columbia system allows them to monitor response rates during the survey administration period and target emails to both faculty and students where incremental urging is required. Columbia also provides incentives: palm pilot give-aways, pizza parties associated with completing surveys in a designated computer lab.

## Increasing Response Rates

Low response rates raise the concern of non-response bias. To investigate strategies to improve the response rates to its online evaluation process, Drexel University performed an investigation and determined that gender, class standing, and cumulative GPA were predictors of student completion of the course evaluation process. Women were more likely than men to complete the course evaluation process. Juniors and seniors were more likely to complete course evaluations

than lower classmen. Students with higher GPAs were more likely to complete the online course evaluations than those students with lower cumulative GPAs.

Research has shown that online student evaluations can work, however they must be implemented differently than paper-based evaluations<sup>1</sup>. The University of California looked at the experience of its campuses where online student evaluations were implemented. Throughout the UC system, professional schools, such as medical and dental programs, have been more likely to use online evaluations than undergraduate programs. The only UC campus to implement an online evaluation process for use by the entire campus is Irvine. Participation rates compared to paper-based evaluations, however, are relatively low. For the 2004 spring quarter, only 16% of courses that used online end-of-term evaluations had a response rate of 50% or more, compared with an average response rate of 60-75% participation for paper evaluations.

As online evaluations are not done in the classroom where there is a captive student audience, an incentive must be offered to ensure high participation rates. Some incentives used include:

- Providing extra credit
- Entering students in raffles for prizes
- Communicating with students early and often about the evaluation process and how the data will be used
- Withholding grades until students submit their online evaluations

A Professor at UC Irvine reported that the first time evaluations were administered online with no incentives provided the response rate was poor with only a few students responding. After offer extra points as an incentive there was very good compliance. At UCLA medical school response rates are 100% compared to 50-60% response rate with paper evaluations. That is because online evaluations are mandatory; students are given an incomplete grade if evaluations are not submitted. UCSF encourages participation by educating students about the evaluation process and how the data will be used.

### **NJIT's Experience**

NJIT has uses online student evaluation in its distance learning courses since Fall 2004. Table 2 compares the response rates for distance learning courses, where online student evaluations are used, compared to the response rates for face-to-face courses.

**Table 2. Course Evaluation Response Rates at NJIT**

| Term        | Response (%) |                   |
|-------------|--------------|-------------------|
|             | Face-to-Face | Distance Learning |
| Fall 2004   | 60%          | 47%               |
| Spring 2005 | 60%          | 51%               |
| Fall 2005   | 62%          | 46%               |
| Spring 2006 | 62%          | 48%               |
| Fall 2006   | 63%          | 46%               |
| Spring 2007 | 58%          | 53%               |
| Fall 2007   | 60%          | 61%               |

The anticipated cost savings in using online student evaluations is \$7500, for printing and software support with time savings of a month and half of scheduling.

For NJIT, the advantage of paper surveys is that either classes have no respondents or a very high response rate. This further reduces response bias for available data. With online surveys all courses will have some responses but it is unlikely that any will approach 100% coverage. The corollary is, however, problematic. Many courses have no responses at all because sheets are systematically damaged or entire packets are misplaced or never returned. (In the past administration, one entire course packet was rescued from a recycling bin where it had been accidentally placed by the student representative.)

Finally, there have been grievances raised concerning security and confidentiality of evaluation forms. A paper-based survey returned by students cannot be made secure. Between the time they are collected and the time they are submitted by the student they are not subject to any university control.

## Conclusions

The Faculty Council recognizes that implementing a successful online evaluation system requires faculty to agree with this approach and therefore believes that a faculty vote is warranted to provide guidance to the administration as they proceed.

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<sup>1</sup> Murphy, Paul (2004), Incentives The Key Ingredient for Successful Web-based Course Evaluations, *TLC Teaching Learning & Technology Center*, University of California, April, 2004.

<sup>2</sup> Hmieleski, Keith and Matthew Champagne (2000), Plugging in to Course Evaluation, *The Technology Source*, September/October 2000

<sup>3</sup> McGourty, Jack, Kevin Scholes and Stephen Thorpe (2002), Web-Based Course Evaluation: Comparing the Experiences at Two Universities, *32<sup>nd</sup> ASEE/IEEE Frontiers in Education Conference*, November 6-9, 2002, Boston, MA.

<sup>4</sup> Hmieleski K. (2000). *Barriers to Online Evaluation: Surveying the Nation's Top 200 Most Wired Colleges*. Report prepared by the Interactive and Distance Education Assessment Laboratory at Rensselaer Polytechnic Institute, Troy, NY.

Additional resources on web-based course evaluations can be found at:  
<http://www.collegeevaluations.com/CEInfo/resources.cfm>