Pilot Study for Assessing the Viability of Using Online Course Evaluations at California State University Sacramento

A Proposal from the Electronic Course Evaluation Task Force: Interim Report

October 8, 2009

Introduction

Sacramento State conducts a majority of their student teaching evaluations using paper and pencil. The practice of collecting teaching evaluations using paper and pencil has come under question. In particular, it is argued that collecting teaching evaluations in this manner is costly (Miller, 1987), demands large amounts of staff time to collect and process the forms (Kronholm, Wisher, Curnow, & Poker, 1999), delays feedback to the faculty (Layne, DeCristoforo, & McGinty, 1999), consumes large quantities of storage space (Donmeyer, Baum, Hanna, & Chapman, 2004), and is environmentally unfriendly (Anderson, McCain, & Bird, 2005).

In fall 2008, the Directors for the Center for Teaching and Learning (Kimo Ah Yun) and Academic Technology and Creative Services (JP Bayard) submitted an interest query to the Provost (Joseph Sheley), Associate Vice President of Academic Affairs (Mike Lee), and Faculty Senate Chair (Bruce Bikle) on the creation of a Course Evaluation Task Force to design and conduct a pilot study to assess the viability of providing faculty the ability to collect their teaching evaluations in an online format at Sacramento State University. In this query, it was made clear that the proposed Task Force would focus on the medium used to collect teaching evaluation data and not the items that departments use for their instructor teaching evaluations

On invitation from the Faculty Senate Chair, during the spring 2009 semester, Dr. Ah Yun and Dr. Bayard attended several Faculty Senate Executive Committee meetings to discuss their query. Initial meetings revealed that the Executive Committee had some recommendations in the formation of a task force and subsequent development of a pilot study, these recommendations included:

1. The need to include Task Force members that represented the Faculty Senate, Faculty in general, Department Chairs, and Students.
2. The need to ensure that appropriate communication on any proposed pilot study would occur with appropriate representatives from Human Resources (HR) and the California Faculty Association (CFA).

3. Faculty participation in the pilot study should be voluntary.

4. Department RTP documents would need to be consulted to ensure that only eligible (per item 3) faculty members would be selected to participate in the pilot study.

5. Securing the collected data would be imperative.

Given the above considerations, the Executive Committee supported the formation of a formal Task Force to be named the Electronic Course Evaluation Task Force (ECETF). The Faculty Executive Committee further recommended that the Task Force be minimally composed of individuals who at the time represented the Curriculum Policies Committee, Faculty Policies Committee, along with faculty, student, and a department chair representative, and that an interim report on the proposed pilot study be presented to Faculty Senate Executive Committee and the Faculty Senate in fall 2009 prior to commencement of data collection.

At the behest of the Faculty Senate, A nine-person Task Force (which was increased to 11 by the task force to include a second student representatives and an AITC technical support member) was created and subsequently received approval. The ECETF was formed with the following Task Force members that represented the most relevant university groups related to the collection of teaching evaluations, including:

Electronic Course Evaluation Task Force Members

Kimo Ah Yun	Director, Center for Teaching and Learning, Co-Chair ECETF
Jean-Pierre Bayard	Director, Academic Technology and Creative Services, Co-Chair ECETF
Wendy Cunningham	Faculty Policies Committee
Doug Jackson	AVP for Information Resources and Technology
Kathryn Kay (replaced in Summer 09 by Jesse Cuevas)	ASI VP for Academic Affairs
David Lang	Curriculum Policies Committee
Raymond Pina	Manager, AIT, Academic Technology and Creative Services
Ann Stoltz	Chair, Nursing
Harry Theodorides	Faculty, Kinesiology and Health Science
Jennifer Underhill	Student, Department of Sociology
Jing Wang	Director, Office of Institutional Research

Upon receiving support from the Senate Executive Committee to pursue the designing of an electronic evaluation pilot study, the Co-Chairs of the Electronic Course Evaluation Task Force presented to the Faculty Senate in spring 2009 their proposed pilot study. Similar to the Executive Committee, some concerns of the proposed pilot study were voiced. These concerns mirrored those made by the Executive Committee and included concerns about the need to (1) receive feedback from HR and CFA on the proposed pilot study prior to data collection, (2) assess any potential RTP concerns with using electronic evaluations, and (3) guarantee that any data collected in the pilot study would not be used in faculty members RTP files.

Near the end of the spring 2009 semester, the Faculty Policies Committee (FPC) discussed concerns related to conducting a pilot study on online teaching evaluations. FPC communicated that their concerns included: (1) The need for the ECETF to elicit direct feedback from UARTP, CFA, and HR regarding concerns or issues they might envision with the pilot study and moving toward using online

evaluations and (2) the need to design the pilot study so that the online course evaluation results would only be used for data purposes and not to evaluate faculty.

Taking into consideration feedback from the Faculty Senate Executive Committee, Faculty Senate, and the Faculty Policies Committee, the ECETF began meeting in the spring 2009 semester and continued to meet throughout the summer. While meeting in the summer, the ECETF was contacted in June 2009 by Faculty Senate Chair, Anthony Sheppard via a memorandum. In this memorandum, he noted that "a collective bargaining agreement was reached between the CSU and the CFA that addresses the implementation of online evaluations." Pursuant to this agreement he noted that, "The CFA will be invited to meet and confer with the ECETF, with the invitation to be coordinated by the Office of Human Resources."

The remainder of this document is devoted to describing the use of online teaching evaluations, identifying good practices for conducting evaluations, and a presentation of the proposed pilot study that is scheduled to be executed at the end of the fall 2009 term. To date, this document has been reviewed by the Faculty Senate's Executive Committee and the UARTP Committee of the faculty senate and the co-chairs has met with each of these groups to answer questions from these groups. Both the Senate Executive and the UARTP Committee unanimously voted to support the proposed pilot study as presented in this document.

Benefits, Drawbacks, and Questions of Electronic Teacher Evaluations

Literature on shifting teaching evaluations online identifies the potential benefits and drawbacks. Benefits include: timely student feedback to instructors, reduced use of class time devoted to conducting evaluations, increased time for students to complete evaluations, greater number of written comments from students, lower costs associated with the process and increased opportunities for students to complete evaluations since windows of completion can be created that allows students

up to two weeks to complete the. In contrast, some disadvantages include lowered student response rates, need for computer access to complete the evaluations, and the risk that electronic evaluations will be less secure than paper evaluation forms (Anderson, McCain, & Bird, 2005).

Given that student response rates tend to decrease when teaching evaluations are shifted from a face-to-face format to an electronic one, implementation research has focused on indentifying which strategies maximize student response. Of course, the employed strategies range from being rather draconian to being substantially more relaxed. For example, universities that value full student participation have gone so far as to require students to complete their teacher evaluations in order to enjoy continued access to their Learning Management System (LMS). The strategy to block LMS access is extremely successful at obtaining student compliance, but some of the collected data has been called into question as some students may simply "click buttons" to access the LMS without paying attention to what they are doing. Another example of a draconian approach is to prevent course registration for the subsequent semester unless students have submitted their course evaluations. At the other end of the LMS blocking spectrum is a more passive approach. In instances in which the implementation strategy is to simply make students aware that the teaching evaluations are online and students are required to log into a central site to complete their evaluations, research reveals that response rates in the twenty percent range can be expected.

Most college and university implementation strategies fall between the most and least strict models as described above. It has been found that when students receive e-mail messages to a link to conduct their teaching evaluations, are reminded on several occasions by their teachers to complete the teaching evaluation, are informed by the faculty member that their teaching evaluation feedback is valuable to the teaching process, and are reminded by e-mail to complete the teaching evaluation if they fail to do so at the mid-point of the data collection period, that the response rate nears those of

paper and pencil rates. Further, when incentives, such as slight increases in their grade, or opportunities to win prizes in a raffle for their completion of teaching evaluations, are made available, the response rate tends to be slightly higher than rates of current paper and pencil formats.

In light of the current fiscal crisis Sacramento State faces, if online teaching evaluations are more cost effective while providing equally good or better data from the student, then such a move should receive careful consideration. With respect to costs for paper and pencil evaluations at Sacramento State, the current process requires the printing of thousands of pages of evaluation forms, purchasing of scantron forms and pencils, human hours to collect and send the data to IRT, and IRT resources to process, calculate, and mail teaching evaluation reports to each faculty member and department.

To date, one study attempted to estimate cost savings of shifting from paper and pencil to online evaluations (Kronholm, Wisher, Curnow, and Poker, 1999). In this study, it was estimated that paper evaluations were approximately 30 times more costly than online evaluations. Given the obvious cost saving of moving from paper and pencil to online teaching evaluations, Sacramento State could save significant dollars.

Based on a careful reading of the literature, taking into account information received from the Senate Executive Committee, Faculty Senate, and discussions within the ECEFT, the following list of pros, cons, and issues that were deemed particularly relevant at Sacramento State was composed (see Table 1).

Table 1. The Pros and cons of online course evaluations in comparison to the traditional face-to-face course evaluations

Pros	*Cons*	*Issues/Questions*
• **Security of the submissions with students being authenticated in the campus' LMS (SacCT)** • **Security of the data given that departments get a copy of the electronic data, with the original submission remaining on the server** • **Complete anonymity - No possibility of instructors recognizing students' handwriting** • **Access to the evaluation data very quickly, as soon as course grades are submitted, and in time to impact next semester's course design** • **Cost reduction for departments and the University in the administration and processing of the evaluations** • **Save on storage space – No need to store evaluations** • **GREEN – Saves paper** • **Flexibility – allows for students to complete the evaluation at their leisure. Even if they miss class they can participate.**	• Lower return rate. • Students could complete the evaluations together, which may impact how they answer. • System technical reliability.	• Getting students to submit their evaluations (return rate) outside class time • How will students be blocked once they have completed the survey? • How will the data be secured? • How will the data be analyzed, and who will analyze the data? • 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 • Verifications of submissions? • Having all students potentially submit an evaluation, including those who have not been attending class. • Faculty choosing when to administer the survey. • Do we need a back-up option in case the online system fails? • What is the time frame for completing the evaluation? Should the University have a

single time frame, or should it vary by course?

- If the process will rely on the email list to be set up by IRT, how accurate and up to date will the list be?

This list was used to guide the design of the proposed study in order to minimize any potential problems. It also ensures that the test of an online teaching evaluation system at Sacramento State is undertaken in the most rigorous fashion, and that the highest quality of data is used to assist in future decisions on the use of online teaching evaluations.

Using Online Teaching Evaluations

The use of online teaching evaluations is spreading in colleges and universities throughout the country. Cited as being at the forefront of collecting teaching evaluations, Drexel University shifted from paper and pencil to online course evaluations in the 1998-1999 academic year. Initial research on the impact of such a move revealed that the response rate decreased. Follow-up research suggests that colleges and universities need not sacrifice dramatic decreases in their response rates. For example, Columbia University in their initial test of implementing online teaching evaluations achieved response rates of 85%, which match most current universities paper and pencil response rates.

Although the Drexel and Columbia University data provides a starting point to consider the impact of shifting teaching evaluations to an online format, their data does not provide sufficient comparison groups between face to face and online teaching evaluations. Two studies helped to illuminate the expected effect on completion rates of traditional versus online evaluations. In a study conducted on 2,453 students at Georgia State University in which students were randomly assigned to either a traditional paper or pencil versus online evaluation condition, it was revealed that the response

rates for in-class participants (60.6%) were higher than those in the online format (47.8%). However, most important, the average ratings for faculty members did not differ across the selected mediums (Layne, DeCristiforo, & McGinty, 1999). This study also revealed an unanticipated effect. Their data revealed that the students in the online evaluation condition provided a substantially greater number of comments about their educational experience than those in the paper and pencil condition.

Another typical study on the impact of shifting from a paper and pencil to an electronic format was conducted at California State University, Northridge. In this study, 16 faculty members were assigned to have one of his/her sections evaluated in-class and the other evaluated online (N = 696). In the online evaluation condition, faculty members were also assigned to one of four treatment conditions, which included: (1) A very modest grade incentive (one-quarter of a percent), (2) demonstration by teacher of how to complete the online evaluation, (3) ability to receive early final grade feedback from the instructor, and (4) no information or incentive. Results revealed that the grade condition (87%) had the highest response rate, followed by demonstration (53%), feedback (51%), and the no information or incentive condition (28%). Overall, the results indicate a response rate difference from the paper and pencil format (75%). However, consistent with most research comparing teacher ratings between those conducted using paper and pencil versus and online format found *no differences in teacher rating score*s amongst any of the online treatments groups compared to the paper and pencil control group.

While the potential change from a paper and pencil format to an online one at Sacramento State deserves careful consideration, general data trends suggest that a shift would be unlikely to yield detrimental effects on faculty members or the university. Within the CSU system, there are a great number of instances in which individual faculty members and departments have already shifted to online evaluations without major difficulty. In fact, San Diego State has already shifted all of their

teaching evaluations to an online format and discussions, with individuals associated with tracking these data reporting that the transition was smooth and the data is usable.

On the Sacramento State campus, online evaluations are currently used. For example, the department of Nursing shifted exclusively to the use of online teacher evaluations several years ago. Findings from this department reveal a drop in response rates, but no differences with respect to individual teacher evaluation ratings.

While Nursing is the only Sacramento State department to fully make use of online evaluations, there are numerous faculty members from other university units, such as the College of Education, College of Arts and Sciences, and The College of Business, who currently use some form of online evaluations. In these other units, the process appears to work and no major issues have been noted.Although comparison data is not readily available for these units in their use of electronic evaluations, anecdotal data suggest that such a system is viable for use at Sacramento State.

A proposed Pilot Study

The ECETF proposed pilot study was designed using feedback from Human Resources, Faculty Senate Executive Committee, Faculty Senate, and ECETF discussions. In particular, the proposed design was created to include important elements, such as:

1. No evaluations used in this pilot study will be part of any faculty member's file
2. Maximization of representation of faculty from as many colleges as possible
3. Faculty participation is exclusively voluntary
4. No faculty participants are allowed if their RTP document precludes the use of non-paper and pencil evaluations, or mandates the inclusion of all course evaluations in their RTP file,
5. Include representation of small, large, seminar, and activity classes

6. Select a sufficiently large enough sample to address issues of generalizability.

Study Protocol. The design of the study is such that selected faculty participants will self identify classes to be evaluated for the fall 2009 semester in an electronic format. These evaluations will serve as the estimate for values in the experimental condition. For comparison purposes, faculty teaching evaluation scores in the experimental condition will be compared to evaluation scores by the same faculty member teaching the same class in semesters that shall not exceed four semesters prior to semester in which they are participating in the pilot study. In the event that a faculty has taught the same class multiple times in the last four semesters, the most recent teaching of the class will serve as the control comparison.

Methodology. A stratified sample of faculty will be used. The courses will be selected based on the type of course (lecture, seminar/discussion, activity and lab), the size of class (25 or less and over 25 students) across six colleges. Because the College of Engineering requires all of their classes for all faculty to be evaluated, no College of Engineering Faculty are used in the proposed pilot study (see Table 2 for a display of the distribution of courses offered in fall 2008 by type, size and college).

Table 2. Distribution of courses offered by types across colleges in Fall 2008

Class Size	Course type	College						
		ALS	BUS	ED	HHS	NSM	SCI	Total
<= 25	1 lecture	410	15	98	72	110	78	783
	2 seminar	24	3	2	14	7	7	57
	3 activity	256	0	0	116	11	5	388
	4 lab	273	13	188	174	184	113	945
	Total	963	31	288	376	312	203	2173
	%	*44.3%*	*1.4%*	*13.3%*	*17.3%*	*14.4%*	*9.3%*	*100.0%*
over 25	1 lecture	503	184	123	244	197	351	1602
	2 seminar	10	34	3	3	1	4	55
	3 activity	76	0	0	64	9	5	154
	4 lab	11	0	31	5	44	10	101
	Total	600	218	157	316	251	370	1912
	%	*31.4%*	*11.4%*	*8.2%*	*16.5%*	*13.1%*	*19.4%*	*100.0%*

All	***Grand Total***	***1563***	***249***	***445***	***692***	***563***	***573***	***4085***
	%	***38.3%***	***6.1%***	***10.9%***	***16.9%***	***13.8%***	***14.0%***	***100.0%***

This design will require the use of 40 classes for the experimental condition so the sample size will be about 1% of all classes. The selected classes are intended to match the distribution of all classes of each college by size and type in fall 2008 in order to better represent the population. In particular, the proposed classes for Arts and Letters (n = 16), Business (n = 3), Education (n = 4), Health and Human Services (n = 7), Natural Sciences and Mathematics (n = 5), and Social Sciences and Interdisciplinary Studies (n = 5) is proposed for inclusion in this study (see Table 3).

Table 3. Class selection by College for proposed pilot study.

Pilot Model								
		ALS	BUS	ED	HHS	NSM	SCI	Total
<= 25	1 lecture	3	1	1	1	1	1	8
	2 seminar	2						2
	3 activity	3			1	1		5
	4 lab	3		2	2	1	1	9
	Total	11	1	3	4	3	2	24
	%	45.8%	4.2%	12.5%	16.7%	12.5%	8.3%	100.0%
Over 25	1 lecture	2	1	1	2	1	2	
	2 seminar	1	1					
	3 activity	1			1			
	4 lab	1				1	1	
	Total	5	2	1	3	2	3	16
	%	31.3%	12.5%	6.3%	18.8%	12.5%	18.8%	100.0%
Target	Grand Total	16	3	4	7	5	5	40
	%	*40.0%*	*7.5%*	*10.0%*	*17.5%*	*12.5%*	*12.5%*	*100.0%*
Sample Size	40 sections							0.98%
Check	Match Small Class	1.5%	2.7%	-0.8%	-0.6%	-1.9%	-1.0%	
	Match Large Class	-0.1%	1.1%	-2.0%	2.2%	-0.6%	-0.6%	
	Total Match	1.7%	1.4%	-0.9%	0.6%	-1.3%	-1.5%	

A comparison analysis will be conducted between the online and paper evaluations for the same faculty member. The outcomes are (1) student response rate and (2) the mean score of student rating for each faculty. The Chi-Square Test and T-Test will be used to determine whether there are differences between the paper and electronic evaluations. A conclusion could be reached that electronic evaluations are equally effective as paper evaluation if there are no significant difference between the two formats in terms of response rates and mean rating scores. All data will be analyzed by the Office of Institutional Research.

Recruitment of faculty was solicited through an e-mail in May 2009 to department chairs asking for faculty volunteer participants. This initial request yielded approximated 40 faculty volunteer

members. After applying the volunteer requirements some faculty volunteers were deemed ineligible. To complete the needed 40 faculty participants, volunteer participant recruitment was and continues to be undertaken by ECETF members.

Method of deployment. This pilot will build upon the experience and practice of delivering electronic course evaluations at Sac State using the software, Flashlight. Version 2 of Flashlight offers many security features that alleviate the concerns mentioned earlier. Flashlight uses SSL, which is the current commercial standard to protect data by encryption over the internet. Access to the survey databases is limited to authorized personal only by means of a username and password. The data center that physically contains the survey database is physically secured and data is backed up nightly should the need arise to restore information. Student anonymity is maintained as the system does not associate the student identifiers with the data results. The evaluation delivery process will be as follows:

1. A participant list will be provided by the Task Force to ATCS.
2. Existing course evaluations will be converted to an electronic format.
3. Respondent pools will be created for each survey, including student email addresses.
4. A template message (describing how the evaluation will be delivered) will provided to each faculty member that can be sent to each student or posted in SacCT.
5. Course evaluations will be sent by email message to each student and the message will include a unique url (each student receives a distinct url). The evaluation will be available for a 2 week period.
6. Midway through the evaluation period, an email reminder will be sent to each student who has not completed the evaluation.
7. The evaluation data will be sent to the authorized department contact. Evaluation data will also be provided to the OIR for the purposes of this report. No evaluation data will be provided prior to faculty submitting their final grades.

Data storage. The original data set will be held by Academic Technology & Creative Services (ATCS), and a digital copy will be provided to the Office of Institutional Research (OIR). All data will be reported in aggregate form. No connection between individual faculty members and any of the teacher

evaluation ratings will be reported. Further, only the Directors of OIR and ATCS will be privy to a complete data file that links faculty with their teaching evaluation ratings.