

Student perspective on electronic evaluation of teaching

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Abstract

Research indicates that administering university student evaluation of teaching electronically rather than via paper-based surveys increases the quality and timeliness of the feedback thereby making a stronger contribution to teaching and learning enhancement. The documented drawback of electronic student evaluation is the response rate, which is significantly lower than paper-based surveys. This study documents a pilot project whereby electronic student evaluation of teaching was administered for one semester in units of study in three of four of the University's faculties. The outcomes confirmed similar studies' results. Whereas most studies are written from the academic and/or administrator point of view, the unique contribution of this study, co-authored by a graduate student, is that students were asked to evaluate the evaluation through an online forum, focus groups, and through the student association. The feedback conveyed a clear and consistent message that students prefer electronic student evaluation of teaching because of enhanced anonymity and convenience and less time pressure.

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Introduction

The primary means of university teaching and learning evaluation is the student survey (Norris & Conn, 2005; Richardson, 2005). Survey data can be applied to course improvement, curriculum review, and educator professional development needs. Numerous journal articles critique student evaluation of teaching (SET) and/or the process. Some of the prevalent critiques were that: survey data are an inaccurate record of student perception (Ballantyne, Borthwick, & Packer, 2000; Dommeyer, Baum, & Hanna, 2002; Ravelli, 2000; Robertson, 2004); the sample is biased to only those students in attendance on the day the survey is distributed, thus missing important informants, i.e., those students who were absent (Nulty, 2008), and; that the data arrive too late in the teaching/subject development cycle to be formative (Anderson, Cain, & Bird, 2005; Ravelli, 2000). As Nulty (2008) also indicated, surveying a sub-set of students, i.e., those students in attendance, may present a biased sample of perspectives, and thus, the missing respondents' evaluations of teaching are left to the educator to deduce or speculate. Additionally, if students have elected to stop attending classes, their survey responses may provide more constructive feedback for the educator's professional development,

thus improving the quality of teaching and learning (Frick, Chadha, Watson, & Zlatkovsa, 2009). For these reasons, it is important to evaluate students' perspectives to electronic evaluations so that universities may move toward a survey sample that is both more inclusive of all students' perspectives and more qualitative in constructive feedback. Lawrence (2005) identified student perspective as an integral element in supporting the "institution-student relationship" to engage students in university culture (p. 16). In other words, including students in the process provides qualitative insight of important stakeholders in subject evaluation.

This paper documents an Australian university's pilot migration from paper-based to electronic SETs. Similar studies relating to advantages and disadvantages, response rates, as well as the quality of responses received when SETs are administered electronically, will be reviewed. A brief overview of the process of the pilot migration will be presented, along with a summary of the results. The emphasis throughout the pilot was on student participation and perspective in SET development, promotion, and evaluation. Student feedback was obtained through different avenues, including email, focus groups, and the university's student association. The paper presents students' evaluations of the migration process, the electronic delivery of SETs, and their concerns regarding anonymity and confidentiality. Lastly, discussion and recommendations are presented for future action.

Literature review

As more universities transition to Web-based systems, thus enabling electronic survey systems, ongoing research continues to observe the effects of the shift to online student evaluation of teaching from the traditional paper-and-pencil method (see Bennett & Sid Nair, 2010; Felce, 2007; Hoffman, 2003; Sid Nair, Adams, & Mertova, 2008; Vennette, Sellnow, & McIntyre, 2010). Numerous journal articles address this migration, reviewing the advantages and disadvantages of Web-based evaluations (e.g., Anderson et al., 2005; Tucker, Jones & Straker, 2008; Watt, Simpson, McKillop, & Nunn, 2002). Anderson et al. (2005) and Coile (2006) noted such advantages as: convenience, rapid feedback, the requirement of less class time, less vulnerability to any educator influence, cost-effectiveness, and the general ease of data collection and analysis. Studies also revealed that students were more likely to provide additional comments about the subject and/or educator on the electronic form, thereby enabling more effective, qualitative and constructive feedback than its paper-based counterpart (e.g., Anderson et al., 2005; Donovan, Mader, & Shinsky, 2006; Layne, DeCristoforo, & McGinty, 1999; Watt, Simpson, McKillop, & Nunn, 2002). Furthermore, Oliver and Sautter (2005) and Avery, Bryant, Mathios, Kang, and Bell (2006) identified security and confidentiality in SETs as major issues of concern for students that may adversely affect student participation in evaluations if students are not assured of their anonymity. An online forum assures student anonymity by eliminating the chances of handwriting recognition (Dommeyer, Baum, Hanna, & Chapman, 2004). For these reasons, the literature indicates that a majority of faculty prefer online subject evaluations (Dommeyer et al., 2004; Norris & Conn, 2005; Ravelli, 2000).

Despite these advantages, studies have reported low response rates from students when given the option to complete the evaluations online (Avery et al., 2006; Dommeyer, Baum, & Hanna, 2002; Layne et al., 1999; Nulty, 2008). Whereas critics of paper-based SET argue that limiting feedback to physically present students creates bias, the above cited critiques of online SET argue that low

response rates in electronic submission also create response bias. Further, the student population is biased to those who are willing to participate in digital forms of communication. Studies have also addressed computer and Web access as potential disadvantages to the online form (Ravelli, 2000; Venette et al., 2010); however, studies reported that low response rates to online evaluations do not appear to affect mean evaluation scores (see Avery et al., 2006; Dommeyer et al., 2004; Layne, et al. 1999; Leung & Kember, 2005). Additionally, Venette et al. (2010) showed that there were less omitted questions on the online forms, and that online forms received more evaluative information than paper-based forms.

Research has also indicated that the mode of administering subject evaluations may affect the accuracy of the responses, namely, that the format of paper-based evaluations may inhibit a student from giving varied answers (Gamliel & Davidovitz, 2005). Specifically, the visual presentation of a paper-based evaluation, in which the questions' horizontal scales are listed down the page, may inhibit varied answers to different questions where respondents are inclined to answer 'down the line' (Gamliel & Davidovitz, 2005). Such data would not be an accurate reflection of students' evaluations; therefore, there is evidence that transitioning from paper-based evaluations to online SETs can help improve the effectiveness and quality of teaching evaluations.

Notwithstanding the growing body of research aimed at the effects of the global transition across universities to Web-based systems, there are remaining considerations and perceptions that require further investigation. For example, while numerous studies identified the potential benefits and advantages of an online delivery system of SETs (Bennett & Sid Nair, 2010; Donovan et al., 2006, 2007; Venette et al., 2010), researchers have also investigated methods to increase student response rates (see Bennett & Sid Nair, 2010; Dommeyer et al., 2004; Norris & Conn, 2005; Nulty, 2008; Sid Nair et al., 2008). Although there exists some research in relation to the student perception and motivation in completing SETs (e.g., Chen & Hoshower, 1998; Felce, 2007; Ravelli, 2000; Robertson, 2004), SET data are traditionally used by faculty and administrators to determine faculty performance for tenure and promotion decisions (Dommeyer, Baum, Chapman & Hanna, 2002; Giles, 2009; Shao, Anderson, & Newsome, 2007). As a result, Eldström's (2008) study indicated that evaluations themselves are educator- and teaching-focused, and neglect the purpose of evaluations, i.e., student learning development. The traditional focus of much evaluation is directed at the performance of the educator and not at student learning and course development (Centra, 1994; Kemp & Kumar, 1990; Lin, McKeachie & Tucker, 1984; Shao et al., 2007; Watt, Simpson, McKillop, & Nunn, 2002). Consequently, the student perspective of evaluation is often perceived as a separate issue from the purpose of evaluation. Where the student perspective has been addressed, previous studies present students as survey respondents, rather than survey developers, promoters, and participants (Donovan et al., 2007; Felce, 2007; Venette et al., 2010).

The gap in the literature, addressed by this study, is how students perceive the move to electronic SETs, and significantly, how do university students evaluate the evaluation? This paper documents a pilot migration from paper-based to electronic SETs, analysing the project on a number of domains, and emphasising the student experience. Through the involvement of elected student representatives and student focus groups, we sought student perspectives and feedback throughout the process, from the beginning stages of developing survey questions, to evaluating the electronic delivery system. Tucker, Jones, and Straker (2008) implemented a similar strategy by including student representatives in the development and

promotion of SET to undergraduate physiotherapy students. This perspective provides qualitative data that contributes to the development and delivery of the evaluations instead of the traditional role of the student as survey respondent (Norris & Conn, 2005). In addition to documenting student evaluation of the pilot, the paper also describes action initiatives beyond the pilot determined on the basis of enhancing the student experience of teaching and learning.

Student evaluation of teaching process overview

A Sub-committee of the Teaching and Learning Committee comprised of academics from all faculties and an elected undergraduate student representative drafted 24 new SET questions and a four-point Likert scale with an additional Don't Know/Not Applicable response option. The sub-committee adapted the questions recommended by Barnes, Engelland, Matherne, Martin, Orgeron, et al. (2008) and Marsh and Roche (1997). They ensured that the questions addressed the dimensions of "teaching readiness" and "teaching excellence" (Barnes et al. 2008, p. 199). Each question was comprised of a statement, an agreement scale, and a long answer response option for comments. This approach reflected Robertson's (2004) suggestion that asking students to provide explanations, thereby prompting more careful thought to the agreement scale, may result in increased accuracy on survey questions. Anonymity and confidentiality were ensured through the use of EvaluationKit, <http://www.evaluationkit.com/> a software system that allowed multiple routes of access to surveys. The surveys were open for student completion between late November and early December 2009.

Statistics

Three out of four faculties chose to participate in the pilot, which was run in the third and final semester of 2009. All fifty-seven units of study in Health Sciences and Medicine and all one hundred- seventy-eight units of study in Humanities and Social Sciences, as well as eleven units of study in Business, Technology and Sustainable Development were included. These units of study included five CORE units, which are required enrolments within all undergraduate degrees. A total of 2,487 students (over 50% of Bond University students) had access to the electronic SET pilot.

Marketing and communication strategy

The Office of Quality, Teaching, and Learning (O-QTL) partnered with the Bond University Student Association (BUSA) to communicate the change from paper-based to online student evaluation of teaching and market electronic SETs to students. BUSA designed posters and distributed them in multiple formats. The O-QTL designed email communications to administrators, educators, and students. Three reminders were sent (approximately weekly) to students who had not yet completed evaluations. An EvaluationKIT system allowed distribution to non-participating students without interfering with the integrity of anonymity of student responses. In addition, the O-QTL designed postcards and inserted them into the university mailboxes of all participating educators. The messages emphasised the importance of student feedback and the educators' commitment to implementing this feedback.

Response rates

In the Bond University SET pilot, student participation was not compulsory. Response rates were consistent with those reported in the literature. Oliver and Sautter (2005), for example, reported studies with electronic SET response rates of 32.8% and 47.8%. Calculating the Bond University pilot response rate by dividing the number of students who completed one or more SET surveys by the number of students enrolled in units of study included in the pilot, the response rate was 42%. Calculating the response rate by central tendencies of each unit of study, the overall mean was 28%, median 34% and mode 34%. Dropping the two outliers, the mean was 37%, median 35% and mode 34%. The mean, dropping the high and low outliers, was 36%. The faculty-specific means ranged from 25 to 44%. While response rates for the electronic SET pilot were significantly lower than that of paper-based surveys at Bond University (averaging 80%), O-QTL was satisfied with the response rate for two reasons. First, research indicates that response rates to electronic SETs increase incrementally over time and in subsequent semesters of electronic administration, as student completion becomes the norm (Avery et al., 2006). Second, Gamliel and Davidovitz's (2005) research indicated that the range and quality of response advantages of electronic SETs outweighs the response rate advantages of paper-based SETs.

Evaluating the evaluation

Preamble

This paper was co-authored by a graduate student to ensure student perspective and voice throughout the process. Students were invited to evaluate the evaluation through an online forum, focus groups, and through the student association. All stakeholders were invited to submit a feedback form from the Blackboard dashboard to a dedicated email inbox. Moore and Kuol (2005) suggested that analysing the faculty thoughts and reactions to the feedback is as important as analysing the feedback itself. In this study, this principle was applied to the student experience. Sixty valid feedback submissions were received. Invalid submissions included several blank submission forms with no comments entered, administrative responses from EvaluationKIT, out-of-office automatic responses, and a few comments on educators (replies were sent directing students to survey access). The submitted feedback indicates that the online SET pilot was positively received overall by those students who chose to express perceptions. Just under half of the submissions were of an evaluative nature, primarily entered by students who expressed their support of the move from paper-and-pencil to online SETs at Bond University.

Students – General positive feedback

Thirteen of the submissions were from students conveying non-specific positive perceptions and support of online SETs. Five students indicated that they believed online SETs allowed more “honest” and “greater” feedback. Specifically, one student offered, “I do like that you are now able to comment on each question – it allows me to give more thorough feedback. I like that.” Four students liked the capability of completing the evaluations at their own pace and in their own personal time. Four commented on the ease and convenience of the system, as well as the lack of pressure from having the educator and/or peers nearby when completing the evaluations. Two students specifically referenced feeling assured of anonymity and confidentiality, as the risk of handwriting recognition was eliminated. Lastly, students supported the online SETs because completion did not

interfere with class time and included students who were not in attendance on one given day. These positive comments largely support findings of other studies in which students similarly praised the efficiency, convenience, and anonymity of online evaluations (Anderson et al., 2005; Ravelli, 2000).

Students – Querying limited availability of eSETs

Three of the submissions were from students who queried why all lectures and tutorials were not included in the pilot. One submission was from a student who expressed support of online SETs and complained that not all of her tutorials were included. Another student did not specify a faculty, but stated confusion that some SETs were run as paper-and-pencil while others were run digitally. A third student was from Law and asked whether eSET would be available for Law students.

Students – Specific constructive feedback

Nine students expressed specific concerns and/or criticisms of the specificities of the electronic SET format and/or process. Many of these submissions expressed general support of online SETs but commented on the specifics. For example, one student wrote, “Much better than the paper form because opportunities to comment on each question provided. However I would have liked a ‘save and return to it later’ option prior to submit.”

Four students commented that they did not like the moving text-box that indicated the unit of study and educator name. We queried this concern with the vendor and they replied that they added this feature intentionally as an ameliorative strategy. Since the feature addition, there was a significant decline in the number of instances in which students reported that they completed the SET survey with the wrong educator and/or unit of study in mind.

One student wrote that there should be a midpoint between Agree and Disagree, i.e., Neither Agree nor Disagree. In other words, this student is advocating a five-point rather than four-point Likert scale. A graduate student expressed that he would not be completing a SET for a unit of study with a small enrolment because he believed his teacher would be able to identify him through a “process of elimination.” Another student queried how we could ensure anonymity whilst running a prize draw. We explained the anonymity controls in the process through a reply email and she replied that in that case she was very satisfied with the eSET process. Such specific feedback was helpful to evaluate the process.

Trouble-shooting

The majority of messages received by the feedback email address (32) were not about appraisal of the electronic SET pilot format and process, but about the resolution of specific problems. In all instances in which the team was notified of a problem, a solution was determined and implemented to the satisfaction of all parties. For example, two students expressed access difficulty. They were re-sent access instructions and indicated that they were subsequently successful. Seven submissions concerned three students who completed surveys with the wrong educator and/or unit of study in mind. The development team redirected the students and they successfully submitted their SETs.

The responses related to trouble-shooting, availability of electronic SETs, and constructive feedback demonstrate the common technological hiccups along the way when conducting a pilot transition from paper-based to electronic SETs, namely, difficulties arising from using an unfamiliar format. The responses

evaluated the process of administering and collecting the responses from electronic SETs, but are not indicative of students' perceptions with respect to electronic SETs as contrasted with traditional pen-and-paper methods. We therefore looked to the feedback from student focus groups to supplement the responses from the online forum.

Student focus groups

Two focus groups were conducted post pilot. One was hosted by the University, as a general students' interest group which elicited comments and heard suggestions from student representatives across all faculties with respect to student services and university administration. This focus group was conducted with twenty-five student volunteers from all four faculties. The focus group was designed to inform the student experience in general, thereby allowing priorities to emerge from the students' point of view in a context of interpretive research (Alvesson & Sköldbberg, 2000). When asked what information and communication technologies were important, several students volunteered the response that they wanted a total migration from paper-based to electronic student evaluation of teaching. In other words, without any specific prompt from the group facilitator in relation to evaluations, the students independently proposed a shift to electronic. The facilitator pursued this topic with the group and there was consensus among all students in attendance that electronic student evaluation of teaching is a priority to enhance the student experience.

The second focus group was held in conjunction with a meeting of the Student Association Alliance (SAA). The SAA discussion group was comprised of student representatives from each faculty-based student association and the general student association (BUSA), for a total of eight participants. Each student representative was elected into the role of Academic Affairs Director in their respective faculties. The student representatives were asked to review the electronic SET pilot and to submit feedback on behalf of each faculty. Although there was some confusion as to the process and selective participation of some subjects in the pilot, the majority feedback was generally positive and in support of electronic SET.

The Humanities Students' Association representatives indicated a very positive reception in that faculty and supported a transition to electronic evaluations. The representative from Health Sciences and Medicine expressed a concern that students "will have to do many because of visiting practitioners." The representative from Law, whose faculty did not participate in the pilot, was recorded as not in favour of electronic SETs because "if it ain't broke, don't fix it." Despite this perception, the Bond University Student Association executive assessed enough of a majority agreement to establish a favourable view on electronic means of surveying students on course and educator satisfaction and feedback. These focus groups demonstrate that from the students' perspective, electronic SETs are preferred because they would benefit their learning experiences, either through ease and convenience of use, or as an important avenue through which students can express positive and negative experiences in the classroom.

Student association executive meeting

Also post pilot, BUSA put electronic SETs on their executive meeting agenda. The minutes indicated that "[BUSA] is in favour of electronic SETs as the current process is inefficient and archaic." Students also indicated that the teacher evaluation system "is pivotal in providing academic feedback pertaining to university life." Similarly, "BUSA feels that the [teacher evaluations] are an

important way of gaining an insight into the classroom.” These remarks support Chen and Hoshower’s (2003) study that students perceive improvements in teaching and course quality as the purpose of student evaluations of teaching. As one representative from the Bond Business Students’ Association remarked, conducting the evaluations electronically would “improve the system so that it could better achieve its purpose.” Thus, students perceive the student evaluation process to be an integral part of their learning experiences, and support an electronic method to enhance its purpose.

Beyond the Pilot

The Office of Quality, Teaching, and Learning conducted a rigorous analysis and decided to initiate a number of actions prior to moving from the pilot to a full roll-out of online SETs. Post-pilot a number of action items have been accomplished and others are in-progress. The most significant completed action is a further modification to the questions and the Likert scale. The outcome was two surveys (Educator Survey and Course Survey). The intention is to reduce nonsensical surveying. i.e., asking students to evaluate tutors on questions of the design of units of study is inappropriate and misleading in that tutors at Bond University do not have curricular control. Two distinct surveys means that Educators can be evaluated on an ongoing basis, and Courses evaluated on a cycle consistent with Curriculum Review processes.

The Educator Survey is comprised of ten questions and will be administered every semester for every Educator and Tutor. The modified questions were reconciled with Barnes et al.’s (2008) and Marsh and Roche’s (1997) teaching dimensions and all dimensions confirmed as addressed. The tenth and final question is a general question asking for overall perception of the educator’s teaching. This question was positioned at the end of the survey rather than the beginning so that the students were guided through nine teaching themes (e.g., assessment, feedback, enthusiasm) prior to completing the overall evaluation. The scale was increased from a four to six-point scale, as analysis indicated that further discrimination was required. Two features of the response scale that were not changed from the pilot are: 1) even scale so that there is no on-the-fence midpoint, and 2) a response option, Don’t Know/Not Applicable, located to the side of the scaled items and not included in the calculations of central tendency and range. This response option was not overused on the completed pilot surveys, but was necessary in some instances. In addition to the quantitative items, two comment boxes will be provided to students – one located after question five and one after question ten. The pilot electronic SET included a comment box after each question and analysis indicated that the resultant quantity and quality of responses did not outweigh the imposing length of the survey.

The Course Survey is comprised of five questions and addresses teaching and learning as embedded components of the educational experience. The fifth and final question asks the students to evaluate the course overall. This question was positioned at the end of the survey for the same reasons as Question Ten on the Educator survey, as described above. The Likert scale is consistent with the Educator survey for the reasons described above. There will be one comment box after the final quantitative question.

Students expressed doubt as to whether the feedback they were providing course-after-course, semester-after-semester was being read, taken seriously, and acted upon. Numerous students asserted that the key means of increasing response rates

is acting upon the SET feedback and clearly communicating these actions. Consequently, two significant motions were put forward in a Quality, Teaching, and Learning (QTL) Committee meeting post-pilot. The first motion proposed compulsory university-wide SETs, and was initiated by student representatives on the QTL Committee. This motion was supported by student representatives from three out of four faculties. The idea of compulsory surveys has generated a great deal of student discussion. The current majority opinion is that the compulsion would be to “consider” completing the survey. The student would have the right to opt out of survey completion, but would have to enter the evaluation system insofar as clicking on the opt out indicator. Students who did not take the time to opt in or opt out would have their grades withheld until such time as they did opt in or out. This sanction was proposed by the students themselves.

The same student representatives who supported compulsory evaluation also supported the second motion for a complete transition from paper-based to electronic SETs. The University Senate supported student views with a majority vote in favour of both motions for compulsion and electronic SET. Student support for compulsory SETs, as well as electronic SETs, strongly confirms the finding that improvements in teaching and quality of units of study is important to the student perspective (Chen & Hoshower, 2003). As our research has indicated, students prefer the online method of completion because it allows more qualitative and complete responses. A further push to make SETs compulsory is evidence that students support evaluation methods that would improve qualitative data collection, thereby improving teaching and learning quality.

A further action priority is to move the SET action initiatives beyond the curriculum review process where it is not transparent to students. O-QTL will lead an initiative to place a Subject Evolution Report (SER) on a consistent visible location on the online outlines. The SER will clearly indicate modifications to design of units of study and teaching in response to student SET feedback. This will encourage an open and transparent environment in which students and faculty engage in constructive dialogue to improve subject development and the student learning experience as a result of student feedback.

Conclusion

There were limitations to our research design inherent to SET investigation. Whereas our pilot revealed and enabled amelioration of both broad and deep issues in student evaluation of teaching, the research design meant that we were unable to unequivocally report that the outcomes are results of the intervention. We were unable to isolate independent and dependent variables and it is impossible to compare pre- and post-intervention data. This is because there were multiple changes brought in through the pilot initiative. In addition to the change from paper-and-pencil to electronic administration, there were new questions and a new Likert scale. There were also changes to the way in which SETs were promoted to academics and students.

What we were able to establish through our research is that students who volunteered to participate in evaluation of the teaching evaluation strongly support electronic administration. Beyond the focus on the evaluation mode, inquiring into teaching evaluation allowed us to determine that surveys are an important avenue of student voice, highly valued by students. It is imperative that universities continue to explore how to make evaluation work for students as well as ensure

that feedback is applied to quality enhancement of teaching and learning and that these changes are transparently communicated to students.

Framed in terms of recommendations, the results of this research clearly suggest that universities who continue to use paper-based SETs migrate the survey process online. In addition, the student feedback lead to the recommendation that if universities desire increased response rates on SETs, they must clearly and explicitly report what actions are being taken as a result of the student feedback.

The contribution of our research to the extensive body of literature about student evaluation of teaching is the consistent emphasis on students. Throughout the design, organisation, data collection, analysis, and action initiatives resulting from SETs, the emphasis was consistently on the students and enhancement of their learning. Students are the key to student evaluation of teaching.

A number of other research questions emerged through our investigation which would enable further exploration of this important terrain. We were unable to find literature specifically addressing compulsory surveys as well as the impact and student perceptions of associated sanctions. There is a paucity of literature describing empirical research about feedback application. Finally, there is a need for further study into alternatives to SETs such as peer observation of teaching.

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