Students’ perspectives are one of the integral components in assessing teaching and learning. As Dalhousie moves to an electronic system for Student Ratings of Instruction, this issue provides an overview of how issues about SRI data have been addressed. This issue also explores how student feedback can be used to enhance the learning experience and revise and develop curriculum.

Suzanne Le-May Sheffield
Centre for Learning and Teaching

Student Ratings of Instruction (SRI) in Higher Education – Exploring the Issues
Deborah Kiceniuk, PhD, Associate Director (Institutional Initiatives)
Centre for Learning and Teaching

One of the first reports of using course evaluations was made by the University of Wisconsin as early as the 1920s (Haskell, 1997). During the 1950s, course evaluations became the most prevalent method of measuring teaching effectiveness in post-secondary education – although they were used in conjunction with other sources. This trend was fueled by the view, developed in the 1970s that students were aware of how they liked to learn, and they were consequently invited to comment on their learning experiences. Since then, there has been much debate in the literature and in higher education institutions as to the reliability and validity of SRIs and their usefulness in the teaching and learning process. Wachtel (1998) indicated that there have been few other areas in higher education that have received such attention in the educational academic literature.

Higher education institutions in Canada and abroad encourage faculty to use student evaluations to rate their teaching effectiveness. However, in some institutions they are also used to inform the decision-making process in curriculum design, institutional planning, and promotion and tenure. Much anxiety and skepticism have existed over SRIs and their use, generated by their possible effect on promotion and tenure or personnel decisions (Ackerman, Gross & Vigneron, 2009; Nasser & Fresko, 2002). While many researchers agree that the instruments used today are valid and reliable, some skepticism remains. Eiszler (2002) indicates that beliefs still exist among some education sectors that the evaluations are biased. Other persistent opinions tend to focus on the capability of students to accurately evaluate a course or instructor (Nasser & Fresko, 2002) and that SRIs are only a reflection of expected grades (Baldwin & Blattner, 2003). These debates very often result in passionate discussions over reliability, validity and the usefulness of the evaluations.

Validity
Given that validity refers to the extent to which an instrument can measure the concept for which it was designed, the question for faculty members, students, and administrators may be what constitutes effective teaching?
In order to address this issue, much research has been devoted to the careful working of questions and the removal of inappropriate items. Hence, many universities are using universal instruments that are composed of questions that have been subjected to psychometric studies, ensuring that the data they are gathering reflects the concepts under study.

**Reliability**

Issues over reliability, that is, the degree to which an instrument can provide similar results over a given period from a similar population, also factor into the debate. With respect to student evaluations, the debate focuses on inter-rater reliability or whether similar results are gained from students in a similar group or class. Other reliability testing on evaluation instruments includes internal consistency, which aims to establish whether a set of items designed to measure a particular concept (e.g., effective teaching) are related to each other in a statistical manner. High correlation between a set of items indicates that the items are related and increases the possibility that they are measuring the same concept.

**Biases**

**Students as evaluators**

A report from the Higher Education Quality Council of Ontario (HEQCO) by Gravestock and Gregor-Greenleaf (2008), states that “one of the primary concerns identified by faculty…is a fear that students are not reliable assessors of teaching and courses” (Ackerman et al, 2009). Many reports support the notion that students can be quality assessors about some aspects of their learning experiences. For example, most students know how they learn best, and can gauge the difficulty of their learning experience in comparison to other courses or other experiences (Nasser & Fresko, 2002; Wachel, 1998). Other studies report that there are some areas of teaching and course design that students find difficult to assess, such as “the level, amount and accuracy of course content” (Gravestock & Gregor-Greenleaf, 2008). Thus McKeachie (1997) has suggested that SRIs should be used only in conjunction with other sources of information that indicate teaching effectiveness.

**Grade bias**

Some of the perceptions about bias in the SRIs encompass the notion that perceived grades have an effect on ratings. That is, students who are confident about their performance in the course will rate the course more highly. A review of the literature by Aleamoni (1999) revealed that studies appear to be split on this issue. Twenty-four of the 61 studies reviewed showed no correlation between expected grade and ratings. Others claim that while this may be a factor, the “impact on ratings is very weak” (Gravestock & Gregor-Greenleaf, 2008).

Regardless of the controversies surrounding the Student Ratings of Instruction, the majority of researchers believe that these ratings, when used and interpreted appropriately, can provide a measure of teaching effectiveness (Gravestock & Gregor-Greenleaf, 2008; Greenwald, 1997). Furthermore, in general, when an instrument is well-designed, with appropriately worded questions, a high degree of reliability and validity can be accomplished. As Niu (2012) states: “Researchers assert that item composition and selection is very important in ensuring usefulness when measuring teaching effectiveness” (from Marsh, 2007).

**Viewpoints on electronic versus traditional paper-based systems**

Since the early 1990s the implementation of online teaching evaluations have added to the course evaluation debate. These discussions have been primarily focused on two issues, “lower response rates, and higher percentage of negative comments with online submissions” (Donovan, Mader, & Shinsky, 2006). Another related concern is the fear that lower ratings will occur with the online version.

**Student comments**

A literature review revealed that students prefer online evaluations to the traditional paper-based versions as “students like the anonymity of online evaluations” (Kuhtman, 2004 in Donovan et al., 2006). A study by Ravelli (2000), using student and faculty member focus groups, indicated that students appear to take more time in providing thoughtful comments when using online evaluations, and reported that the online tool was user-friendly.

**Lower response rates and quantitative scores**

One of the most predominant concerns for faculty members over a move from paper-based to electronic formats is the perception that response rates will
Based on Thorpe's 2002 study, it was suggested that the issues over non-response bias and return rates may not be warranted. With respect to quantitative scores, little difference has been evident between online and paper version of course evaluations (Donovan et al., 2006).

**Increasing response rates**

It is evident from the literature that there have been varying reports about low response rates with an online system compared to the paper-based system. Below are some suggestions on how to increase response rates:

- Allow students to complete the online forms in-class via electronic capture.
- Inform students about the importance of completing the evaluations and also how the results are used, including course improvement and personnel decisions.
- Order encouragement from instructors and administrators for students to complete the forms.

In addition, Dalhousie's implementation of the online SRIs is being communicated institution-wide:

- By email to instructors, administrators and students
- On the university-wide digital displays
- On sticky notes for students
- In the Dal News and Today@Dal
- In the Dalhousie Gazette
- On the Centre for Learning and Teaching Website

The above overview has discussed some of the key issues and concerns about student ratings of instruction. Please refer to the references at the end of this article to find more detailed information on SRIs.

**References**


Dalhousie’s Plan for the New BLUE Electronic System for SRI

At Dalhousie University, SRIs are recognized as an essential component of a formal institutional evaluation strategy that includes evidence from students (SRI results), the individual instructor, and peer-reviewable information about teaching, usually presented in the form of a comprehensive teaching dossier.

This fall, Dalhousie is introducing a fully electronic system for Student Ratings of Instruction (SRIs) – course evaluations. The questions contained on the form are the same, but the paper format is being replaced by a secure website that allows students to complete evaluation forms electronically via any mobile device or Internet-enabled computer. The timeline for this implementation is outlined below:

**November 13-16**
Departmental and instructor-generated questions may be added via email link sent from the SRI system. Instructors will receive an email through their Dal account with a link to the SRI site and instructions on how to access the system.

**Week of November 19**
Email links become active for students to complete their course evaluations. Students will receive an email through their Dal account with a link to the SRI site and instructions on how to access the system. Please note: For courses that have (1) multi-instructors or (2) lab and tutorials sections you may receive a second separate email containing a link which must be used to evaluate these courses.

Instructors are requested to provide a 15-minute time period for in-class completion of the course evaluations by students present (Nov. 19 to Dec. 4).

**December 4**
Access to the site closes at midnight. Students must complete course evaluations before this deadline.

The results of the evaluations will be available after final grades have been submitted. Instructors will then have an opportunity, via a checkbox at the end of the results form, to release the aggregated results of the eight core questions for student access.

**CLT Welcomes the e-Learning Team**

The eLearning team with CLT offers eLearning advice and support to the Dalhousie community. With two experienced instructional designers, the eLearning team is available to offer guidance with both online and blended/hybrid course initiatives.

**Adrienne Sehatzadeh**, MA, MEd
Instructional Designer/Solutions Researcher
(902) 494-3634
Adrienne.Sehatzadeh@Dal.Ca

**Aaron Panych**, M.Ed. (DE)
Online Instructional Designer
(902) 494-8364
Aaron.Panych@Dal.Ca
What is the “new system” called?
The new Student Ratings of Instruction electronic system has been developed through the industry-standard BLUE software that is specifically designed for the purpose of handling large datasets for course evaluation systems.

Are there any courses that will not be evaluated through BLUE?
There are some courses at Dalhousie that cannot currently be configured in the BLUE database. For example, some courses that have multiple instructors or are taught in units or blocks by more than one instructor. These courses will be evaluated through Dal's OPINIO survey system using the same form as the one used in BLUE.

Where are the data stored and is it secure?
The data are stored on a secure server at Dalhousie University similar to ones that store other confidential information for the university.

How will I know when and where to access the system?
Users of the system – students, instructors and designated administrators – will receive an email through their Dalhousie account which contains a link to and instructions on how to access BLUE. The timeline is outlined above.

When will the results be released?
The results will be released soon after the grades have been submitted.

How do we know which comments are signed comments?
Students have the opportunity to provide signed and unsigned comments as they did in the paper-based system. There will be checkboxes at the end of the comments form for students to indicate whether they want their comments to be used for “tenure, promotion or other personnel decisions”. If students do not check the box, their comments will be deemed unsigned and will not be used for this purpose.

Will the response rates decrease?
Research has shown that with online systems the response rates are sometimes lower. However, the response rates normally increase over each administration of the evaluations.

How can I increase my response rates?
Two of the most important ways to increase response rates are to allow students to complete the forms in class as you would have done in the paper-based system and to inform students how the results are used and why their feedback is important.

Is there any difference in the quality and quantity of comments between the online and paper-based systems?
Research has shown that both the number of written comments and words increase, and that the quality of comments improves with online systems.

How do we know that students do not let someone else complete their evaluations?
Evaluation forms can only be accessed by a student entering his or her net id and password into the system for a course in which content is officially registered. Students should be reminded, however, about the risks of providing their personal information to other individuals.
Experiences with Involving Students in a Curriculum Review Process in Industrial Engineering

Corinne MacDonald, P.Eng., Ph.D., Associate Professor, Industrial Engineering
Uday Venkatadri, P.Eng., Ph.D., Head, Associate Professor, Industrial Engineering

Industrial engineers design systems. Ours is one of the fastest growing professions worldwide. A pillar of our profession is the concept of continuous improvement; that every process or system can always be improved in terms of quality, cost, speed and efficiency. In that spirit, the faculty in IE meet for an entire day each year to review our curriculum, looking for opportunities to improve its design, and to consider ways to best address issues in the upcoming year. A few years ago, we realized that something was missing from this review: the point of view of our students. While many of the faculty had had informal chats with students to get feedback, there was no formal process in place to obtain feedback on all aspects of our program. This article is about our experience in involving our students in the curriculum review process.

Background on the IE Curriculum

Our program is almost entirely lock-step; for the first two years, the courses are common across engineering, except in the second term of the second year, where some discipline-specific courses are taken. In their 3rd year, students start the IE portion of the program, and most follow the co-op schedule, where they alternate academic terms and co-op terms until their final (5th) year, where they complete back-to-back academic terms and graduate in June. The students in the same year take the same courses every term, except for their final year when some technical electives are offered. Therefore, when designing our curriculum, we have to consider not only the courses offered but also the sequence in which they are offered.

When designing curriculum in engineering, one has to keep in mind the requirements of the Canadian Council of Professional Engineers (CCPE), the body that accredits engineering programs across the country. The CCPE sends a team every six years to evaluate our program, make a decision on our accreditation, and make recommendations for improvement. Beyond these requirements, we as a faculty want to ensure that our program is current, relevant, and sufficiently in-depth for our students.

The IE department has a long history of involving students in our operations. A student is elected from each class to sit in on our weekly department meetings. These student representatives have an opportunity to let us know if there are any issues affecting their class. They also get to hear what is going on in the department and can report back to their classes. They are welcome to participate in any discussions we have.

Meanwhile, individual professors receive feedback on a course-by-course basis, we did not have any mechanism for getting feedback from the students on our overall curriculum. Specifically, we needed to understand from our students’ point of view what worked in our program and what did not. Most of our information came from our own evaluation of the program, and the occasional informal chat with one or more students. Therefore, we decided, in the spring of 2010, to invite some of our senior students to a meeting to discuss the courses they had taken, and the design of the curriculum in general.

Curriculum Review Meeting

First, we asked a couple of the senior students in the class who had talked to us informally about the curriculum in the past what they thought of the idea of a curriculum review meeting; they both responded very favourably and immediately asked if they could take part. We decided to hold this meeting toward the end of their final academic semester and in order to keep a focused discussion, to invite no more than six students. An advantage of having smaller classes go through a lock-step program is that faculty get to know many of them very well. We considered those who would not be afraid to speak their minds, but also those who we knew had talked to one or more of us before about curriculum issues. When we invited these students, we were concerned that our timing might be bad; it was close to the end of the semester and, like most students, they were very busy. However, their attitude when asked was that they’d make time for this. We also decided that only two faculty members should attend this meeting.
We developed an agenda that was quite simple; working through our curriculum one term at a time, we would talk about each course specifically, and then the overall term in general. We also wanted a discussion item on topics or skills the students felt were not sufficiently addressed anywhere in our program.

We were somewhat surprised at how seriously the students took the meeting, and their general attitude toward the exercise. They did not let it descend into a complaints session about individual instructors; in fact, when one student began to talk somewhat negatively about an individual instructor, others in the group jumped in quickly and said, essentially, “let’s focus on the course”. They didn’t always agree with each other. For example, we have a course in the senior year entitled Company Operations and Management. Some in the group suggested there should be more focus on entrepreneurship and starting one’s own business, while others felt exposure to the operations of large organizations would be more appropriate. We realized that their opinions on this stemmed from where they saw themselves going in their own careers.

These students, all of them with at least five years of university and three co-op terms under their belts, were professional and focused. They understood and appreciated what we were trying to do. Our discussions were not only informative, but constructive. They thanked us for the opportunity when we were finished.

We did this again in 2011, and once again the exercise went very well. This time, we added general issues to the agenda, such as space, building access, class schedules, etc., although we explained that for many of these issues, the decisions were not ours to make. However, we wanted to understand how we should try to influence them for the students’ benefit. We completed the 2012 meeting in early March, again with six students and two faculty members. Once again, the attitude was very positive, and the students seemed to appreciate that we were listening to their ideas. We had budgeted only an hour and a half for the meeting because of some scheduling constraints, but when we started running over the students insisted on staying longer; the meeting ended up taking 3 hours.

**Overall Outcomes**

The students made it clear to us that they were generally happy with the program they had taken, but there were specific opportunities for improvement that were under our control. Those generally followed two themes. The first theme was specific topics covered in courses: too much detail, not enough detail, or topics that should be added to certain courses. For example, Lean/Six Sigma, an operation improvement program, was one that some had encountered in their co-op terms, but they felt they hadn’t learned enough about it in our program. Although we have added some coverage of these topics into our program, the 2012 group felt that more was necessary – they even suggested the course in which this could be done.

The other theme was their skill sets. For example, one group felt strongly that a skill they needed to master was data collection in industry; they felt that they needed more experience in how to do this and suggested that we offer more opportunities to practice this skill in course projects throughout the program. Another suggestion was that students coming back to an academic term after a co-op work term should provide a presentation to their class (and maybe the lower class) on their co-op experience. They suggested that it would be another good opportunity for presentation experience, which was always useful, and it would be a chance for faculty and students to learn about the work being done at the companies that hire our students. We are planning such an activity for this September.

We also heard suggestions for things we had not even considered. One example was that they asked about whether we could look into helping those interested in working toward their Project Management Professional (PMP) certificate.
Going Forward
We have decided that the curriculum review meeting will become an annual event. Although the students are busy in March, it seems to be an ideal time to hold this meeting. Obviously, having the meeting in the final semester means the students have had experience with the entire curriculum. A second reason is that by this time they are starting to see themselves leaving the university and going forward into their careers. Many have already secured after-graduation employment. Therefore, they can be reflective on their time in the program, and, as good industrial engineers do, they can start thinking of what would have made the design of the program better. Issues raised by the students at this meeting will be shared with the entire faculty, and then taken into our annual curriculum review meeting in early summer.

Looking back, we do not think that this exercise would be as successful as it has been without having the students involved in our department meetings every week. Minor issues such as after-hours access to the computer lab are dealt with in a timely manner, and students start to believe early on that the department actually listens to them and deals with their issues.

We will continue to invite no more than two faculty members to participate in this meeting. We feel that any more than that would inhibit the students’ willingness to freely share their concerns. Those faculty members who do participate in such an exercise have to go in prepared to hear some criticism; no program is perfect. The key is to not get defensive, even if you feel the issue is beyond the control of the department. The students need to feel that they are free to say what they really think, and that the faculty will listen. Oftentimes the issues the students identify are those that the department is already aware of to some degree. In some instances, when we noted that we were aware of the issue but hadn't figured out how to deal with it, the students began brainstorming on what to do. Sometimes that led to some very interesting ideas.

As for how to prepare for the meeting, we found it useful to ask the students (prior to the meeting) to think about what they would have liked to have learned more about, now that they are about to join the working world. We also explained that the goal of the meeting was to determine opportunities for curriculum design changes for the next group of students (their future colleagues). At the meetings, we made it clear that we would not be able to change everything they might suggest; some issues would take priority, and other suggestions might not be possible due to other constraints.

In 2012 we started the meeting by reviewing the upcoming changes to the curriculum that had resulted, in part, from our student review meetings of the previous two years. We felt it important to let them know that some changes were already coming, and we hoped that this would also reinforce the idea that we take their feedback seriously. These students had taken the “old” curriculum and we asked them if they felt the changes we were implementing could address some of their issues. While they were happy with most of the changes, there was one proposed scheduling change that they felt would not be a good idea. We had

We felt it important to let them know that some changes were already coming, and we hoped that this would also reinforce the idea that we take their feedback seriously.
considered moving a course on Database design to the second term, and moving a course on Manufacturing Processes to the first term. They were unanimous in their view that this was a mistake; several of the students had used what they had learned in the Database course in their first co-op jobs after first semester, and they noted that employers seemed to expect that they had had this course. They also noted that this course involved a heavier than normal workload, and it would make for two more “balanced” semesters if the course remained in the first semester. We have since decided not to make this change.

As a final note, during the preparation of this article, we contacted former students who had participated in one of these meetings, and asked them to give us their opinion on the exercise. In their words:

- **Reviewing the curriculum, course-by-course and as a whole, truly helps with assessing different pieces of the education that students receive. Getting feedback and analyzing the pros and the cons of the approach goes hand-in-hand with what is taught in Industrial Engineering. More technically, it’s a feedback system or a process that’s precisely following Deming’s PDCA Cycle: Plan, Do, Check, Act. Ultimately, … this approach results in a robust curriculum that prepares students more effectively and efficiently for the future.**
  – Sina Raeisi, Industrial Engineering Class of 2012

- **Being asked to express my opinions/suggestions about the curriculum, really made me feel like I was taking the step from pupil to peer. I believe by the department asking its graduating students for their opinions on the program, it shows a certain level of mutual respect between the students and faculty. It is also important to give the graduating students a voice on the future of the program because it creates a stronger bond between the department and its future alumni.**
  – Hillary Hicks, Industrial Engineering Class of 2011

- **The students got the chance to discuss issues about various aspects of the curriculum with a department member that normally would remain within the student body. As a senior student and having already gone through all of the courses and co-op work terms, it was great to be able to give feedback about what courses I found beneficial and what areas I felt should have been emphasized more to provide me with a better background and prepare me for later courses.**
  – Nadia Dajani, Industrial Engineering Class of 2010

---

Magna Commons, a leader in publications in higher education, produces online seminars, publications, conferences and other products that support faculty and staff development.

As a member of our campus community you have this valuable professional development resource available at no cost to you. Active Magna Commons subscribers also receive a 50% discount to register for live seminars, or to order previously held seminars on CD. Sign up today and help energize your higher education career.

**Activate your account today!**
http://www.dal.ca/dept/clt/resources/Magna.html
Nominate YOUR Candidate for Dalhousie University-Wide Teaching Awards!

Deadline to nominate
December 15, 2012

Nomination packages due
February 15, 2013

For more information on these awards visit our website at
http://learningandteaching.dal.ca or contact the Centre for Learning and Teaching:
clt@dal.ca or 494-1622
Dalhousie University-Wide Teaching Award Recipients for the 2011 - 2012 Academic Year

Dalhousie Alumni Association Award of Excellence for Teaching

Frank P. Harvey, Department of Political Science
“Really made students think about the subject in ways rarely seen in these classrooms. Great prof.”
“Asked excellent questions of presenters to lead discussion. Led students to defend and enhance arguments. Really productive class. Terrific class that generated a lot of extremely interesting discussion.”

Sessional and Part-time Instructor Awards of Excellence for Teaching

Darryl C. Eisan, Department of Political Science
“I believe there is no other instructor more worthy of the Dalhousie Sessional and Part-time Instructor Award of Excellence for Teaching than Darryl Eisan is. He is a devoted, passionate, and invested instructor whose high standards for himself and his students promotes one of the most meaningful learning environments I’ve ever known. To bestow him with this award is to give him the recognition he so rightly deserves.”

Dr. Christopher Grundke, Department of Classics
“The passion and enthusiasm with which Dr. Grundke approached every day of teaching was infectious. His classes were challenging, but his encouragement and high-quality instruction helped his students rise to the occasion and have a more rewarded experience both in and outside of the classroom.”
Attention Faculty, Instructors, and Teaching Assistants:

The Centre for Learning and Teaching challenges you to
Share your student engagement activities
2- $800 Conference Travel Grants will be awarded!

What?
An engagement activity that you developed within the last 24 months and that is still part of your current teaching practice.

How?
Describe a student engagement activity that has a positive impact on student learning in one of your courses. You may also provide evidence through student testimonies (not required).

Examples of Activities:
- Collaborative assignments and projects
- Undergraduate research experiences
- Service learning
- Community-based learning
- Capstone courses and projects
- Experiential learning
- Using technology to enhance student engagement
- Anything that works!

Benefits for the Winners:
1. Two winners, determined by a review panel, will receive a Scholarship of Teaching and Learning Grant for up to $800 to support travel to a teaching and learning conference.
2. All applicants will be invited to present at the Dalhousie Conference on Teaching and Learning to be held in May 2013 at Dalhousie University.

Your Submission Must Include:
- Why you developed your activity
- A clear goal for the activity
- The impact on student learning
- Less than 1000 words
- Title, name, department, contact information

Criteria for Winner Selection:
- Rationalization for the activity within your teaching context
- Clear connections between student engagement and learning

Deadline: December 17, 2012

For more information or to submit your submission please contact Deborah Kicieniuk, PhD, Associate Director, Centre for Learning and Teaching: 494-3808 or deborah.kicieniuk@dal.ca.