

Making the most of Midterm Course Feedback Surveys

What is a midterm survey, and why should I consider it?

A cornerstone of achieving the most effective, evidence-based science education is to measure what's working, and react to those measurements. One easy way of doing this involves using midterm surveys to get feedback from students about what they think is working and what is not. These highly visible efforts to improve learning will also enhance your instructor evaluations because studies of professor evaluations suggest that students prefer instructors who care about success of students in a course (eg, Nuhfer, 2003). Of course, opinions must be used with care because they don't always reflect reality. Therefore, questions must be carefully posed, and reactions carefully implemented.

Examples of useful results in EOS:

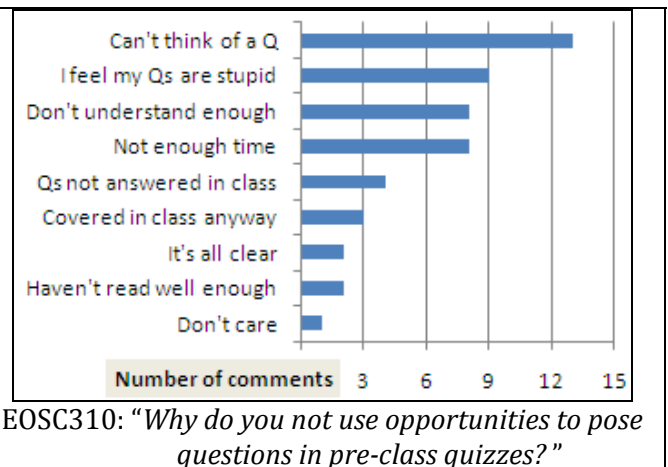
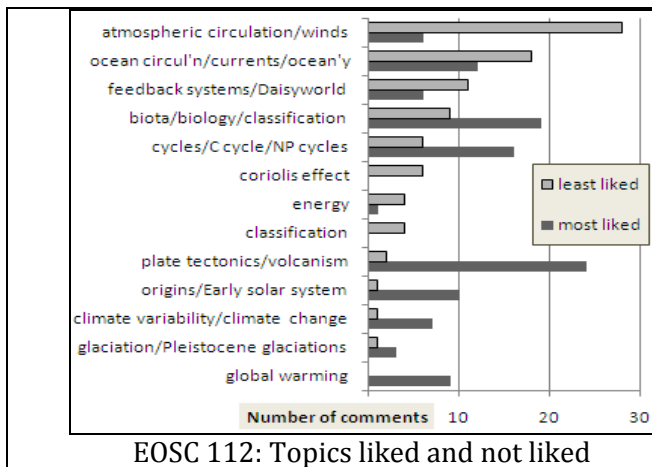
At least eleven courses are using surveys to help judge effectiveness while the course is in progress. A few examples are:
EOSC112: Asking "what topics are you most/least interested in?" yielded results below left. For a broad service course, this can give students some say in content which might help define coverage in the second half of a course.

EOSC114: During the first couple of terms of transformation we learned that the text was not helping students, that our learning goals became more useful after a couple of terms, and that the topics, instructor enthusiasm, & videos were "liked".

EOSC350: Questions asking "is the balance of lecture / team / read / lab working?" were generally answered yes in two different years for two different instructors teaching with a similar balance of these learning activities.)

ENVR200 uses weekly Critical Incidence Questionnaires (CIQs) for feedback. These provide insights (to both students and instructors) about students' maturing skills related to learning, interacting with peers or experts, and working with scientific information. Please contact Sara Harris or Douw Steyn for details about using CIQs.

EOSC310: Data shown below right told the instructor why students did not make use of opportunities to pose questions.



EOSC220: Two useful questions deployed using Vista, posed using a 5-point Likert Scale, are:

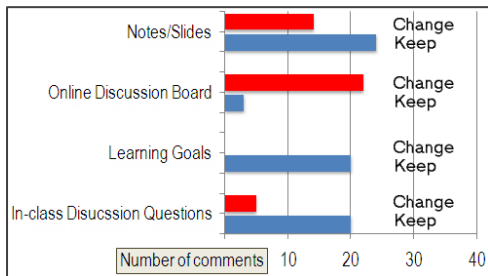
The learning goals are useful for my learning.	The poster project was useful to my learning.
1. 15 (26.3%)	1. 4 (7%)
2. 29 (50.9%)	2. 13 (22.8%)
3. 9 (15.8%)	3. 14 (24.6%)
4. 3 (5.3%)	4. 16 (28.1%)
5. 1 (1.8%)	5. 10 (17.5%)
Generally positive.	Generally somewhat negative.
1. = strongly agree, 2. = agree, 3. = neutral, 4. = disagree, 5. = strongly disagree.	

EOSC220: Two useful open questions: “If I could change one thing ...” and “If I would keep one thing ...” yielded these results:

Change: The Online Discussion Board was generally disliked.

Keep: In-class Discussion Questions and Learning Goals were all generally liked. Reaction to Notes/Slides was mixed, so maybe leave them as is for now.

Data like this can be acted upon effectively and quickly.



Other courses using midterm surveys include eos221, eos324, eos111, envr300, and others. Some courses are using more frequent opportunities to obtain feedback, for example following specific modules or exercises. What you choose to do depends on the structure of the course and what you are able to respond to.

Examples of less useful questions

Question	Why not so good ...
Is the text book working for you?	Not easy to change before end of term. Ask at in End of Term survey.
Is team work helping you learn?	Student opinions about whether team work <i>helps learning</i> usually reflect what they “like”, not necessarily what evidence says “works”.
Which instructor do you prefer?	Personal & and popularity questions are strongly discouraged.

How to do it?

Building questions: This takes care. We have tried several approaches.

1. Questioning via “rate on a scale of 1 to 5” can work well if you ask meaningful questions of this type.
2. Asking for open-ended answers is more time consuming to analyze but usually yields useful results.
3. Multiple choice questions may be less useful unless you have previous data that show what types of answers students will have. MC questions can yield confusing results, therefore have a colleague or STLF check them.
4. Ideal questioning format is not always obvious. For example, in eos114 we tried “How much did xxx help your learning?” style of questioning (based on Seymour etal, 2000) but later decided it was not optimal for all questions. Some are better posed using a “Do you agree or disagree ...” style, because students are not always able to tell if their learning was “helped”.

Deploying the survey: Many approaches:

1. Use paper – fine, but time consuming to analyze if there are more than 20 or so students.
2. Secure online surveys (on the EOS server). You need to ask an STLF for help with preparing and implementing these but data are provided in an easily analyzed format.
3. If you have a class Vista site, use assessments to generate a “quiz” if you want to track answers of individuals or a “survey” if you want anonymous results (you can tell who contributed but not what each individual answered).

Getting students to comply: Add some participation points to your course grading scheme. Students will happily do a survey for 1 “free” percentage point on their grade. Or include the survey as part of other “participation” components in your grading scheme.

Reacting to the results: Step1: Decide which questions you really want to respond to. Some results might not be easy to act upon. For example, in eos114 we initially experienced negative reactions to use of clickers, but we decided this was because of our early lack of experience using clickers. Surveys in subsequent terms showed improved appreciation for clickers. Step2: Show *anonymous* aggregated results to students. Explain what your actions will be, and how they are based upon results. Step3: Then you can proceed to make the changes. Step4: Finally, make sure students see that you have made the change.

Help: Contact Francis Jones or other STLFs for more details & examples about using midterm surveying to improve learning.

References: See the online version at <http://www.eos.ubc.ca/research/cwsei/eossei-times.html>.

Contact EOS-SEI: You are encouraged to talk about your course(s) or teaching and learning in general by dropping by EOS-South 361 or contacting Francis Jones (fjones@eos.ubc.ca), Brett Gilley (bgilley@eos.ubc.ca), Josh Caulkins (jcaulkins@eos.ubc.ca), Erin Lane (elane@eos.ubc.ca) or Sara Harris (sharris@eos.ubc.ca).

For more faculty resources and information, see <http://www.eos.ubc.ca/research/cwsei/>.

Also, please watch for Brown Bag discussion sessions roughly once a month in the Tuesday 12:30-1:30 time slot.

Some relevant references:

1. Gibbs, Graham, Claire Simpson (2005), "*Conditions Under Which Assessment Supports Students' Learning*", Learning and Teaching in Higher Education, Issue 1, 2004-05
2. Ivie, Rachel, Roman Czujko (2007), "*What's your survey telling you?*", Physics Today, Nov 2007.
3. Nuhfer, Edward B., 2003 "*Of What Value are Student Evaluations?*" Center for Teaching and Learning, Idaho State University, accessed Jan, 2009, <http://www.isu.edu/ctl/facultydev/extras/student-evals.html>
4. Seymour, E., Wiese, D., Hunter, A. & Daffinrud, S.M. (2000), "*Creating a Better Mousetrap: On-line Student Assessment of their Learning Gains*", Paper presentation at the National Meeting of the American Chemical Society, San Francisco, CA. See Student Assessment of their Learning Gains at <http://www.salgsite.org/>.