Using a Modified Version of the 'Experiences of Teaching and Learning Questionnaire' to Obtain Meaningful Student Feedback in Large Classes

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Abstract

Feedback from students is an important component in the ongoing evaluation and improvement of courses offered at institutions of higher education. However, obtaining meaningful and useful feedback is not easy, especially in large enrollment classes where students have varied needs, interests, and motivations. This is a particular problem in introductory courses offered in the Department of Biochemistry, where students are registered in very distinct programs, including nutrition, kinesiology, dental hygiene, medical laboratory sciences, chemistry, engineering, and general sciences, and where a large majority have little understanding of the role of the subject matter in their program.

At the University of Alberta, feedback regarding students' learning experiences is collected through universal student ratings of instruction (USRIs), using instructor-designed questionnaires (IDQs) which include ten mandated questions. In our experience, the mandated questions and the 'average' scores obtained in the standard statistical analysis do not provide us with valid or reliable information which can be applied to actual improvement in the students' classroom learning experiences. Therefore, we have begun to explore alternative methods for obtaining useful feedback in our large-enrollment courses. In particular, we have recently tested a modified version of the 'Experiences of Teaching and Learning' questionnaire, which was developed as part of the UK Economic and Social Research Council's Enhanced Teaching and Learning (ETL) Project. This survey has enabled us to obtain feedback regarding specific course objectives and to investigate how student responses vary depending upon their program. Our experiences and findings in using this questionnaire are presented here for discussion.

Current USRI questions

In USRI feedback the 5 required questions about course content are:

- *The goals and objectives of the course were clear.*
- *I am motivated to learn more about these subject areas.*
- *I increased my knowledge of the subject areas in this course.*
- *Overall, the quality of the course content was excellent.*
- *In-class time was used effectively.*

We feel that these questions are of limited use without an idea of relevant "learner differences" such as the respondent's motivation for taking the course, background knowledge and preparation, and approach to learning. In large classes, anonymous feedback becomes meaningless feedback with respect to course improvement.

To investigate this, an alternative survey was administered to two classes of Introductiory Biochemistry (Bioch 200), in which program of registration was determined. Responses were analyzed to see if there were differences depending on these important demographic differences.

The Questionnaire

BIOCH 200

This questionnaire has been designed to allow you to describe, in a systematic way, your reactions to the course you have been studying and how you have gone about learning the material. There is a series of questions, some of which overlap to ensure good coverage of different experiences. Please respond truthfully, so that your answers reflect your actual experiences in this particular course, working your way through the questionnaire quickly. It is important that you respond to every item. Please circle the appropriate number to indicate your response.

Which Faculty or program are you currently enrolled in?

- ☐ Faculty of Agriculture, Life and Environmental Sciences (ALES)
- ☐ Faculty of Engineering
- ☐ Faculty of Science B.Sc. General
- ☐ Faculty of Science B.Sc. Specialization or B.Sc. Honors
- ☐ Dental Hygiene
- ☐ Kinesiology
- ☐ Other (Please specify: _____)

1 = disagree 2 = disagree somewhat 3= unsure 4 = agree somewhat 5 = agree

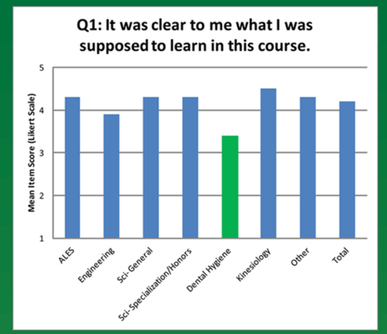
		DISAGREE				AGREE
1	It was clear to me what I was supposed to learn in this course.	1	2	3	4	5
2	The topics seemed to follow one another in a way that made sense to me.	1	2	3	4	5
3	What we were taught seemed to match what we were supposed to learn.	1	2	3	4	5
4	This course encouraged me to relate what I learned to its application in other areas.	1	2	3	4	5
5	Instructor(s) tried to share their enthusiasm about the subject with us.	1	2	3	4	5
6	Instructor(s) were patient in explaining things which seemed difficult to grasp.	1	2	3	4	5
7	I found most of what I learned in this course really interesting.	1	2	3	4	5
8	I enjoyed being involved in this course.	1	2	3	4	5
9	The course was well-organized and ran smoothly.	1	2	3	4	5
10	How this course was taught fitted in well with what we were supposed to learn.	1	2	3	4	5
11	Instructor(s) helped us to see how you are supposed to think and reach conclusions in this subject.	1	2	3	4	5
12	It was clear to me what was expected in the assessed work (midterm) for this course.	1	2	3	4	5
13	Instructor(s) tried to make connections between class material and my existing knowledge.	1	2	3	4	5

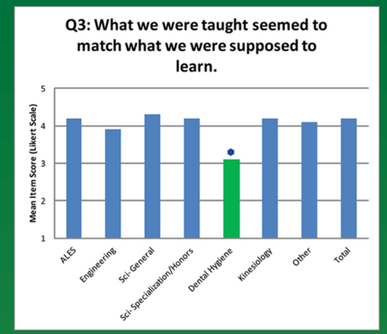
Thank you for your time in completing this questionnaire. It is much appreciated.

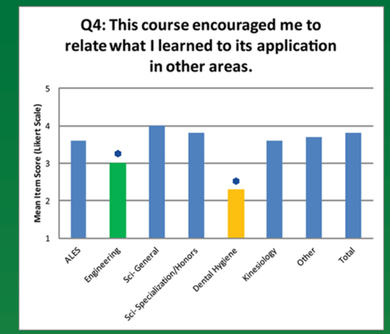
The questionnaire was administered to two section of Bioch 200 in the Winter term of 2012. Sections were taught by different instructors, one section was a Tuesday/Thursday (TR) section while the other was a Monday/Wednesday/Friday (MWF) section. All exams were consolidated.

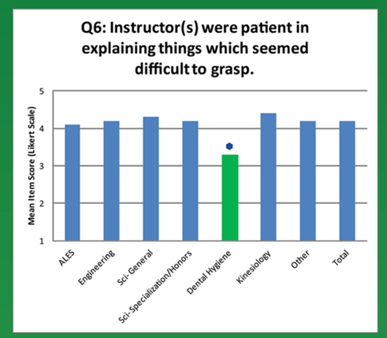
Questionnaires were administered to the 2 sections, but mean item scores by demographic were calculated for the entire group, to remove the influence of the instructor. Notably, both kinesiology and dental hygiene students (who tended to report lower mean item scores) were mostly enrolled in the TR section which had higher mean items scores for each item than did the MWF section.

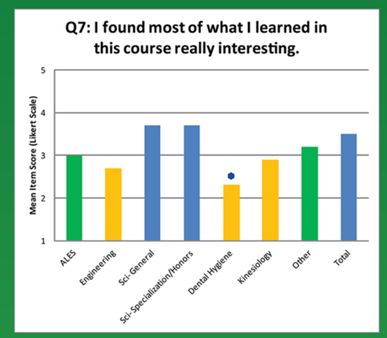
Mean item scores for all items were lower on the MWF section than in the TR section. These were statistically significant ($p<.05$) for all items except 4, 6, 8, 13. None of the differences for items pertaining to the course was substantive, however. The only item where the difference placed responses in a different 'category' was Item 12 (Clear.....what was expected in midterm) differed from 3.3 (unsure range) for MWF to 3.9 (agree somewhat) for TR.

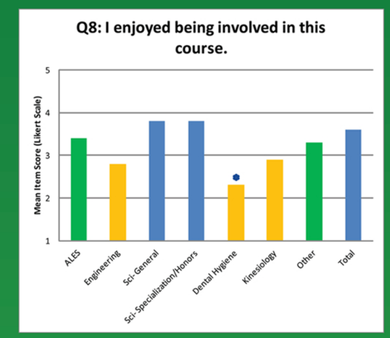


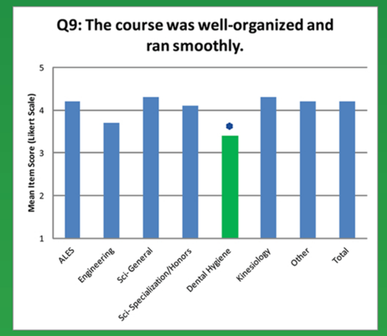


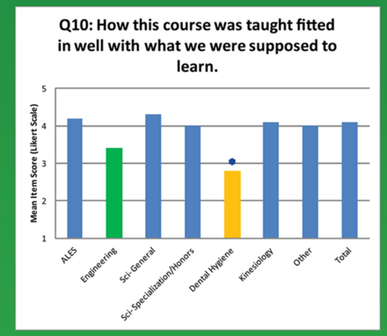


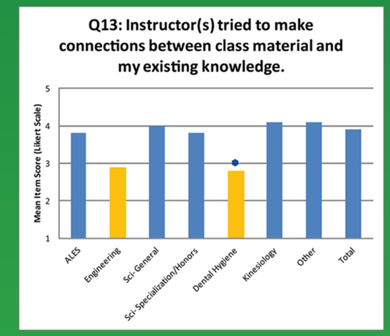












Conclusions

For Bioch 200, Dental hygiene scored lower mean item scores on ALL questions than other groups, many of these significant. Engineering and kinesiology also scored lower than SCI on several questions. Some of these differences were also substantive, and if the objective of course evaluations is to "improve teaching" or to obtain meaningful feedback on course structure and delivery, then the differences of opinion among different demographic groups is important.