



Intellectual Challenge in the Classroom

Making Evidence Useful for Individual Faculty
Supported in part by a grant by the Teagle Foundation

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Supplemental Course Survey on Intellectual Challenge

Connecticut College is currently leading a multi-institutional Teagle Foundation “Systematic Learning” grant, “Data into Action: Using Assessment Data with Faculty to Improve Student Learning.” The purpose of this grant is to facilitate faculty ownership of student assessment data that institutions are already collecting, and to help systematize the ways in which faculty use that data to make decisions about enhancing curriculum, course design, and teaching to improve learning. Connecticut College’s specific focus of our grant is increasing intellectual rigor and academic challenge in the first year—a focus based on our results from our first-year Wabash National Study (WNS) data.

In discussions and focus groups with faculty, one of the challenges we have found with the data provided by studies Wabash and NSSE is that it is very “blunt.” In other words, even if faculty understand and “believe” the evidence these studies provide, they are unsure *how the evidence should inform their own course design and teaching practices*. In order to address this issue, in cooperation with John Nugent, our Senior Research Analyst (our Institutional Researcher), the CTL decided to design and pilot a short student questionnaire for faculty to give their individual classes.

One of our goals was to create a supplemental feedback form that could fit on one page and would take approximately 5 minutes for students to fill out. We also wanted this to be a project focused on improving individual faculty teaching—not a large-scale study that could in any way be used for evaluative purposes of Promotion & Tenure. Because this study relied on volunteers, those two conditions—brief and non-summative—were key to the participation and the project’s success.

We based the questions on specific areas of concern identified by our year-one WNS results, centered mostly on the mega-scale of “Intellectual Challenge and High Expectation,” but also including questions related to the NSSE DEEP scales and the mega-scale “Good Teaching & High Quality Interactions with Faculty.”

The first pilot group—mostly faculty associated with the CTL—administered the survey in Fall 2009; the following semester, Spring 2010, a slightly-revised and re-scaled supplemental survey was offered to anyone interested in administering it. In 2010-11 we worked on revising the form further based on individual and group feedback from the faculty in these two pilots groups. In the Spring 2011 we administered the most revised (and current) version of the survey—now 2 pages and with a few more student demographic questions and three open-ended questions at the end. We also changed the scale from 5 to 4 items and made the scaled more descriptive; we also asked faculty to fill out the same form as their students, highlighting what practices they thought their course emphasized and guessing how their students would respond.

To date (through Fall 2012), 65 different faculty members participated, and we gathered data from 178 different courses—a total of over 3,200 surveys.

Following are some of the documents related to this initiative, including calls for volunteer pilot participants (pages 2-3), the current survey itself (Spring 2011 revision) (page 4) and directions for administering it (page 5), information about follow-up focus groups (page 6), and sample individual reports (pages 7-9). Although the original purpose of this study was to provide data to individual faculty members only, we also ran a variety of cross tabulations with the entire data set, looking at variables such as the gender and rank of the instructor, the level of the course, and the type of course (see page 10 for an overview of the data set). We shared these analyses with faculty participants, but decided as a group

not to share these comparisons beyond the group involved, because such analyses exceeded the original intention and design of the survey. We are following up these activities with a multi-part workshop designed to lead faculty through the revision of a course using, in part, the evidence they garnered by participating in this pilot. For more information about the Joy Shechtman Mankoff Faculty Center for Teaching & Learning, please visit our website at <http://ctl.conncoll.edu/> or contact the director.

Request for Volunteers Sent to CTL Leaders for First Pilot Group

From: Michael Reder (Center for Teaching & Learning) <reder@conncoll.edu>
Subject: CTL Advisory Board Members--help pilot a supplemental student feedback form?
Date: December 5, 2009 5:27:35 PM EST

Hello Everyone,

John Nugent, a couple of other interested faculty, and I have designed a very short, supplemental student course feedback form that asks many of the "intellectual challenge/academic rigor" questions from the Wabash National Study (WNS), in addition to a few of the other practices the WNS has identified as leading to significant growth in student outcomes on things like critical thinking, etc...

The purpose of this feedback form is for faculty to get information about how their students are experiencing their courses and how they might want to modify them. This survey is meant to translate the rather blunt WNS data that aggregates a student's experiences for 8 different courses over a year and allow a faculty member to gain specific insights about student experience in a specific course.

A small group of faculty (including several of us on the CTL AB, me included) have already volunteered to pilot these questions for their courses this semester.

I wanted to offer each of you an opportunity to use this short student survey this semester, which should take about 5 minutes for students to complete. You would be helping us out by increasing the size of the pilot group, and you would be a good group to try this because you represent experienced, effective teachers from across the disciplines.

The form should be ready on by Tuesday. If you are interested in participating in this pilot on a totally voluntary basis, please let me know.

Hope you are all doing well.

Best,

Michael

Request for Volunteers Sent to All Faculty for Second Pilot Group

From: Michael Reder <reder@conncoll.edu>
Subject: [Faculty] CTL Pilot Study: a supplemental student feedback form on intellectual challenge in the classroom
Date: May 5, 2010 8:31:04 AM EDT
To: faculty faculty@conncoll.edu

Dear Colleagues,

Would you like to know more about whether and how students feel they are intellectually challenged in your courses? The initial data from the Wabash National Study of Liberal Arts Education contained some provocative indications of how our first-year students experience the College's academic program overall, but they didn't allow us to "drill down" to examine students' experiences in any particular course.

At the end of the fall 2009 semester, a group of about 10 faculty members from across the disciplines volunteered to pilot test a one-page supplemental course survey in their courses that asked many of the Wabash questions related to intellectual challenge. The results were quite interesting, but we'd like to gather more data so we start forming firmer conclusions about the variations in ways that courses across the disciplines can challenge students.

The survey consists of 16 questions and can be completed in about 3 minutes.

We hope you will volunteer to participate in this study. We can either send you a PDF of the survey for you to reproduce or can send you copies of the survey in an envelope that you can then use to return the surveys to the CTL. The responses will be analyzed and summarized by the Office of Institutional Research and will remain confidential. Results may be summarized for discussion purposes, but without instructor names, course numbers, or other identifiers. Faculty members will receive a report with the results of their own surveys and with appropriate masked comparisons to other courses.

*****Please let me know via email as soon as possible if you are willing to administer this survey.***** If you have any questions, please contact me via email or at x2122.

Thanks for considering participating.

Best,
Michael

Michael Reder
Director, Faculty Center for Teaching & Learning
Faculty mailing list

Current Supplemental Feedback Form

SUPPLEMENTAL COURSE SURVEY - SPRING 2011

COURSE/INSTRUCTOR: _____

Are you currently working for pay (either on campus or off)?	Yes	No
Are you on an intercollegiate athletics team that was "in season" (competing) during this semester?	Yes	No
Excluding time spent in class, approximately how many hours a week altogether do you spend on school work for all of your courses?		
Excluding time spent in class, approximately how many hours a week did you spend this semester on work for <u>this</u> course?		

This semester, for this course, about how often have you done the following?

1. Worked on a paper, project, or lab that required integrating ideas or information from various sources.	Never	Once during the semester	Twice during the semester	Once a month	Twice a month	Once a week	Continuously during the semester
2. Completed class reading assignments, writing assignments, or discussions that included diverse perspectives (different races, religions, genders, political beliefs, social or cultural views, etc.).	Never	Once during the semester	Twice during the semester	Once a month	Twice a month	Once a week	Continuously during the semester
3. Discussed readings, labs, materials, theories, studio work, or events associated with the class with the professor outside of regularly scheduled class meetings (for example, during office hours, during individual meetings, or via email).	Never	Once during the semester	Twice during the semester	Once a month	Twice a month	Once a week	Continuously during the semester
4. Discussed readings, labs, materials, theories, studio work, or events associated with the class with others outside of class (other students, in other classes, with family members or friends, etc.).	Never	Once during the semester	Twice during the semester	Once a month	Twice a month	Once a week	Continuously during the semester
5. Spent significant amounts of time on work for this course.	Never	Once during the semester	Twice during the semester	Once a month	Twice a month	Once a week	Continuously during the semester
6. Examined the strengths and weaknesses of my own views on a topic or issue.	Never	Once during the semester	Twice during the semester	Once a month	Twice a month	Once a week	Continuously during the semester
7. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective.	Never	Once during the semester	Twice during the semester	Once a month	Twice a month	Once a week	Continuously during the semester
8. Learned something that changed the way I understand an issue, concept, or activity.	Never	Once during the semester	Twice during the semester	Once a month	Twice a month	Once a week	Continuously during the semester
9. Received regular feedback from the professor about my work or academic performance in a timely manner.	Never	Once during the semester	Twice during the semester	Once a month	Twice a month	Once a week	Continuously during the semester
10. Felt challenged by the professor or the course to think about new ideas and to learn.	Never	Once during the semester	Twice during the semester	Once a month	Twice a month	Once a week	Continuously during the semester
11. Felt challenged by the professor or the course to do my best work.	Never	Once during the semester	Twice during the semester	Once a month	Twice a month	Once a week	Continuously during the semester

How much has the coursework in this class emphasized or required the following mental activities?

12. Memorizing facts, ideas, or methods from the course and the readings so I could repeat them in pretty much the same form.	Very little	Some	Quite a bit	Very much
13. Analyzing the basic elements of an idea, experience, creative work, or theory, such as examining a particular case or situation in depth and considering its parts.	Very little	Some	Quite a bit	Very much
14. Synthesizing and organizing different ideas, information, or experiences into new, more complex interpretations and relationships.	Very little	Some	Quite a bit	Very much
15. Making judgments about the value of information, arguments, interpretive approaches, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions.	Very little	Some	Quite a bit	Very much
16. Applying theories or concepts to practical problems, to creative interpretations, or in new situations.	Very little	Some	Quite a bit	Very much

ADDITIONAL QUESTIONS

What parts of this class contributed most to your learning? Why?

What advice would you give a student who was going to be taking this class next semester?

If you would like, please provide more detail about any of your answers to questions 1-16 above.

Directions for Administering the Student Survey

Suggested Instructions for CTL Intellectual Challenge/Academic Rigor Supplemental Student Feedback Form Spring 2011

Many thanks for your willingness to administer this survey in your classes. Based on feedback from faculty who participated in last year's pilot groups, we have made a few changes to the survey form. First, we modified the wording of a few questions for clarity. Second, we changed the scale from "never, sometimes, often, very often" to a more precise scale that we thought students (and faculty) would better understand. Third and finally, we added three short open-ended questions at the end of the survey. Because of the more-detailed scale the survey is now one-page front and back.

Just a reminder: the data we are gathering are all confidential—you will only receive summary data about your students' responses and comparisons to the responses from all students/courses (with no identifiers). We will also cross-tabulate the overall results to try to discern any trends and to offer faculty who are participating in this project more of an understanding of the overall trends. This cross-tabulation will be done in a way that masks the identity of any one participant. The results will not be used in any form for evaluative purposes, although you may certainly include them in your teaching portfolio if you wish.

John Nugent and I estimate that the entire survey should take between 5 and 8 minutes to complete.

Two suggestions:

First: You may want to emphasize to your students that you won't look at these until after you turn in your grades, just so they answer as honestly as possible.

Second: To get a sense of whether faculty members' perceptions of their courses correspond with their students' perceptions, while your students are filling out the survey (or before), we'd like you to fill out an "Instructor's Copy" (and clearly identify it as such, if you were sent the survey electronically), doing three things:

- 1) Answer the questions in the manner that you think your students, on average, will respond.
- 2) Place a plus sign (+) next to the 3-5 questions that pertain to activities you think your course emphasized most.
- 3) Place a minus sign (-) next to the 3-5 questions that pertain to activities you think your course emphasized least.

If you were sent the survey electronically, please remember to clearly mark the copy you complete as "INSTRUCTOR'S RESPONSES," then return it with the rest of the completed surveys.

When your students are done filling these out you can put them in an envelope and send them to me (CTL, Box 5313) or keep them until after you turn in your grades, look them over, and then send them to me . . . your choice. In June, John Nugent will compile the results and send you a report.

Thanks again for doing this. I really appreciate it, and I expect the results will continue to deepen our understanding of how students perceive the intellectual challenge in our courses. If you have any questions, email or call me (x2122, cell 860-460-3440).

Best,

Michael

Invitation to Pilot Follow-Up Discussion & Focus Groups

from **Michael Reder** <mrred@conncoll.edu>
date Tue, Mar 8, 2011 at 2:11 PM
subject Follow-Up to CTL Intellectual Challenge in the Classroom Pilot Surveys—
please RSVP

Dear Colleagues,

I am writing because you volunteered to participate in the CTL-sponsored “Intellectual Challenge in the Classroom” supplemental course survey pilot last year.

John Nugent has done a wonderful job working with the data to create a pilot form for reporting the results for the class surveys. Later this month you will receive from John an individualized report for each of your classes that completed the survey.

In addition, I would like to invite you to attend one of two follow-up discussions. The first, which will be held on Wednesday, March 30th from 3 PM to 5 PM, will include drinks and hors d’oeuvres. The second, on Friday, April 1st, will be from 8:30 AM to 10:30 AM, and will be held over a delicious breakfast.

At these two events we will discuss the individual reports and their usefulness. John will also present some of the data for similar types of courses (by course level, discipline, etc.) to try to tease out some of the variations in how academic challenge manifests itself in different kinds of courses.

We would like as many of the faculty in the pilot groups as possible to attend one of these discussions.

Will you be able to attend either the afternoon discussion on March 30th and/or the breakfast meeting on April 1st?

Thanks again for your participation.

Best,
Michael

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Michael Reder
Director, Faculty Center for Teaching & Learning
Connecticut College

Sample Pilot Individual Faculty Reports

CONCISE REPORT OF RESULTS OF SUPPLEMENTAL COURSE SURVEYS WITH RE-CODED RESPONSE SCALES

FALL CHOICES

- 1=Never
- 2=Rarely
- 3=Sometimes
- 4=Often
- 5=Very often

SPRING CHOICES

- 1=Never
- 2=Sometimes
- 3=Often
- 4=Very often

Surveys administered in the fall had 5 response options and those administered in spring had 4 response options. To make it possible to analyze the entire set of results from both surveys, the responses on the fall surveys were re-coded into the 4 responses offered in the spring. This document shows your results for the course listed below.

In general, the idea here is that more = better, so higher average responses are desirable.

The spring survey had one additional question not asked in the fall: How often the student had "spent significant amounts of time studying and on academic work for this course."

**Fall 2009
Reder
ENG 120G**

	INTEGRATED IDEAS	DIVERSE PERSPECTIVES	PROF. OUTSIDECLASS	OTHERS_OUTSIDECLASS	MEMORIZED	ANALYZED	SYNTHESIZED	MADE_JUDGMENTS	APPLIED_THEORIES	EXAMINED_OWN_VIEWS	UNDERSTAND_OTHERS_VIEWS	CHANGED_MIND	REGULAR_FEEDBACK	CHALLENGED_TO_LEARN	CHALLENGED_DO_BEST_WORK	SPENT_SIGNIFICANT_TIME
1. Avg. of your students' responses	2.33	3.60	2.07	2.00	1.40	3.40	3.43	2.33	2.20	2.67	3.13	2.87	3.13	3.33	3.67	####
2. Number of responses	15	15	14	15	15	15	14	15	15	15	15	15	15	15	15	0
3. Avg. of all students' responses	2.85	2.70	1.98	2.56	2.27	3.25	3.11	2.84	3.05	2.65	2.53	2.96	2.88	3.16	3.29	3.02
4. Raw difference (line 1 - line 3)	-0.51	0.90	0.09	-0.56	-0.87	0.15	0.32	-0.50	-0.85	0.02	0.60	-0.09	0.25	0.17	0.37	####
5. Percentage difference	18% lower	34% higher	5% higher	22% lower	38% lower	4% higher	10% higher	18% lower	28% lower	1% higher	24% higher	3% lower	9% higher	5% higher	11% higher	#### #DIV/0!

More Information about the Pilot Data Set & Analysis

SUPPLEMENTAL COURSE SURVEY ON INTELLECTUAL CHALLENGE: Fall 2009 and Spring 2010

THE DATA

A set of questions drawn from the National Survey of Student Engagement (which is also part of Wabash study): 15 questions (fall), 16 question (spring)
 Different response scales, but I've merged them for this analysis (fall was 5-point; spring was 4-point)
 250 surveys in fall; 879 in spring; 1,129 total

PARTICIPANTS

37 different faculty members
 58 courses (14 fall, 44 spring)

VARIABLES FOR CROSS-TABULATING THE RESULTS

Instructor gender (female, male, female+male team taught)
 Course level (100, 200, 300, 400)
 College division (Arts, Humanities, Natural Sciences, Social Sciences)
 Instructor rank (lecturer, assistant, associate, professor, non-tenure-track)
 Final enrollment range (1-10, 11-20, 21-30, 31-40, 41-50, 50+)
 Course had a lab? (yes/no)
 Was a language course? (yes/no)

SOME HYPOTHESES WE CAN THINK ABOUT IN LIGHT OF THESE DATA

Are different kinds of courses intellectually challenging in different ways?
 Do students find upper-level courses more challenging? (should they?)
 Do courses in different divisions ask students to do different kinds of intellectual work?
 Do students find courses taught by tenured faculty members to be more challenging?
 Do students find smaller courses to be more challenging?
 Do students in lab courses report doing more work in applying theories?
 Do students in language courses report doing more memorizing than those in other courses?
 Do students spend more time preparing for courses that (a) are upper level, (b) are smaller, (c) have a lab, etc.?
 What do we think of the overall results in terms of what they say about intellectual challenge?
 Which of these questions might we want on an all-campus course evaluation?

Follow-Up May 2011 Camp Teach & Learn

Using Evidence: Changing Your Course to Improve Student Learning

Prepared by John Nugent/Institutional Research 3/30/2011

Part 1: Tuesday, 24 May: 1:00 PM to 3 PM; lunch served at noon &
 Part 2: Thursday, 26 May: 1:00 PM to 3 PM; lunch served at noon.

During this interactive workshop, participants will consider data about student learning (both at the College-level in general and information related to their courses specifically) and revise a course with the aim of improving student learning, academic challenge, and student engagement. Participants will consider the data, explore ways to incorporate evidence-based teaching and learning practices into their course, and then re-design a course. Follow-up workshops will be offered later in the summer and during the Fall semester.