Determinants of Students' First Impressions of Instructors and Courses

Michael R. Dicks
Professor
Department of Agricultural Economics
Oklahoma State University
314 Agricultural Hall
Stillwater, OK 74078
Phone: (405)744-6163
michael.dicks@okstate.edu

J. Ross Pruitt
Graduate Research Assistant
Department of Agricultural Economics
Oklahoma State University
421H Agricultural Hall
Stillwater, OK 74078
Phone: (405)744-9809
ross.pruitt@okstate.edu

Daniel S. Tilley
Professor
Department of Agricultural Economics
Oklahoma State University
422 Agricultural Hall
Stillwater, OK 74078
Phone: (405)744-6180
daniel.tilley@okstate.edu

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Michael R. Dicks, J. Ross Pruitt, and Daniel S. Tilley

Abstract

Students evaluated instructors and courses in the first two weeks of the fall semester to determine the factors that form impressions in the early stages of the semester. Results indicate differences exist between upper and lower division courses with presentation of material and perceived workload as key factors that students use to form first impressions.

Introduction

The practice of students evaluating their professor's teaching began gaining acceptance at U.S. universities during the 1960s (Wilson 1998), and have since become an integral part of the measurement of faculty performance. Student evaluations of teaching (SET) are viewed differently by faculty, from a way to improve individual teaching performance (Germain and Scandura 2005; Wilson 1998) to a way for students to retaliate against faculty for perceived slights during the semester. Others question the validity and reliability of SET as outlined in Rotem and Glasman (1979) while McKeachie (1997) concludes that validity of SET is not as serious as some instructors believe it to be.

A significant question that has yet to be addressed fully in the literature is what drives the pre-impressions of a course. That is, what sources of information are students using to form initial opinions of a course and the instructor and how do pre-impressions impact students' rating of a course and instructor? Fleming, Bazen, and Wetzstein (2005) measure the externalities associated with SET but their results mask what occurs in the first few moments of a course when first impressions are made. Externalities explored in this article included factors over

which the instructor largely had no control. Such externalities tie into the idea of "consumerism" which has recently appeared in the SET literature. The idea of consumerism stems from students evaluating courses on characteristics that are not associated with instructional value (including the price of the textbook, date/time the course meets, and entertainment value). An idea such as this would certainly have the possibility to bias the course/instructor ratings. At the very least, there would be a disconnect between what the SET are set to measure and what they actually measure.

Students have long passed on information regarding courses and instructors to fellow students. This would, in essence, allow the student to form expectations/pre-impressions of a course or instructor. From time to time, a student's major advisor may also make suggestions on possible instructors based on information conveyed to him/her by previous advisees. In essence, the student is gathering information prior to "buying the good/service", i.e. the educational experience in a given course taught by an instructor. Furthermore, the student may be trying to minimize buyer's remorse.

An additional tool that has served the purpose of providing information to students are internet websites that allow instructors to be rated. While it is not known how widely these websites affect the decision on which instructors (courses) a student chooses to take, available information would play a role into the formation of pre-impressions the student holds on the instructor and course. Questions also must be raised about the lack of quality control in such websites that students may or may not fully understand. Many of these websites allow for students to view each individual rating and associated comments in addition to aggregating the ratings. While this may increase the quantity of information, the question of whether or not web-based internet evaluations are based on a valid sample remains. In the College of Agricultural

Sciences and Natural Resources at Oklahoma State University, information gleaned from a website may not affect the choice decision itself, but would affect observed SET ratings due to the fact many courses only have one section available each semester.[1] In instances in which a course is taught by two different professors in different semesters, students may delay enrollment in a course until a more favorable instructor is available in an effort maximize the student's expected utility derived from the course experience.

Given the amount of information available to students on courses from all available sources (including previous experiences, internet websites, friends, and faculty advisors), students may know within in the first few meetings of a course how they will rate the instructor and course. Much time and effort is spent by instructors in order to maintain high instructional ratings at institutions where SET are a component of review, promotion, and tenure decisions. Merritt (2007) documents that students form lasting impressions of instructors within five minutes of being in the presence of the instructor. These findings are attributed to characteristics of the instructor's gender, facial attributes, and mannerisms, and underscore why the literature is clear that SET should not be the only measure of teaching ability despite the validity of SET (McKeachie, 1997). Much time, effort, and cost are associated with the printing, collection, analyzing, and in some cases teaching with the SET in mind. However, students form opinions of the course throughout the semester which are reflected on the SET conducted at the end of the semester. This paper seeks to determine those factors through the use of a course evaluation instrument similar to the one distributed at the end of the semester at Oklahoma State University.

[1] A few introductory level courses have multiple sections that are taught by a single professor in a large lecture style room. These lectures are supplemented by laboratory/discussion sessions where students meet within their smaller section.

Conceptual Model

At Oklahoma State University, students evaluate their instructor as well as the course on several different factors in each category. Instructors are rated from very high to very low on factors including preparation and effort, effort devoted to teaching, and students' overall impression of the instructor. Students evaluate course characteristics and outcomes including whether or not the course was worthwhile, the relevance of assignments, and the overall belief that this was from a good course from definitely yes to definitely no. Although it is unconventional to ask students to evaluate courses and instructors in the first weeks of a course, students have already formed opinions or expectations of that course and instructor. These expectations may be formed from other students, websites, and major advisors. The information gathered prior to and in the early weeks of the semester would affect views reflected in SET conducted at the conclusion of the semester. Information on the factors affecting pre-impressions (that is information gained prior to the start of the semester) and first impressions would give instructors more information on what students know at the beginning of the semester and have that to compare with results at the end of the semester.

While Fleming, Bazen, and Wetzstein (2005) model the utility of the instructors in their work on externalities, SET are a reflection of the views of the students on instructors and courses. One of central arguments against SET is that students do not have adequate knowledge to critique instruction until after having been in the workforce for several years (Theall and Franklin, 2001), but Costin, Greenough, and Menges (1971) point out that student ratings are stable across several years where those of fellow faculty members are not. As Theall and Franklin (2001) point out, students are there and have experienced the full course experience.

While students may not always be knowledgeable about the subject matter of the course in which they enroll, they may have a feel for how the course is going to unfold over the course of the semester given events in early in the semester and early impressions of the instructor. The description of an instructor can impact evaluations as outlined in the paper by Widmeyer and Loy (1988) who described a guest lecturer as either a "rather warm (cold) person". Those students who received the "warm" descriptor rated the guest lecturer as more intelligent and interesting than those students who received the "cold" descriptor. One drawback of the evaluation procedure outlined in this research is that students are forced to choose a way they view their instructor early in the semester unlike the course attributes which allow a student to pick "not applicable" or "undecided" in regards to a statement on the SET. However, it can be argued that students already have an opinion on instructors early in the semester based on whether or not the student continues to stay enrolled in a course and conversations they may have with friends and family about the courses and instructors they are currently taking (let alone by enrolling in the course). Granted, the previous statement is a tad simplistic, but enrollment in a course is a revealed preference of the student that the current instructor/course is better than the alternative of waiting to possibly have a different instructor or the course not being offered again for several semesters causing the student to continue their education until the next offering of the course.

A SET conducted in the first few meetings of a course can be viewed as a student expressing their expectations of utility from the knowledge gained from the course throughout the semester

(1) E[*U(Student, Instructor, Course, Student Views)]*,

where *Student* is a vector that includes characteristics of the student such as gender, classification, and previous courses in the subject matter, *Instructor* is a vector of variables including the rank of the instructor and perceptions about the instructor's attitude and presentation of the material, *Course* are variables related to size of the class, time the course meets, and perceptions about the workload, and *Student Views* is a vector containing information about student's expected grade and attendance, views on how fair the instructor is, and how entertaining the instructor. Externalities that are beyond the student's control may be found in the *Course* and *Student Views* vectors. Questions posed to students are shown in table 1 with asterisks denoting questions that appear on the final OSU student evaluations of teaching. Students rated on concepts related to the instructor as "very high, high, average, low, or very low". Questions regarding the course were evaluated as "definitely yes, yes, undecided, no, definitely no, or not applicable".

Empirical Results

Twenty two courses in the College of Agricultural Sciences and Natural Resources (CASNR) participated in this evaluation research. Participating classes were from the departments of animal science, agricultural economics, agricultural communication, education, and leadership, plant and soil science, horticulture, and natural resource ecology and management. Of the twenty two courses, one course was being offered for the first time by a full professor with two courses being taught for the first time by a new instructor (the aforementioned full professor in the new course offering as well a graduate student). There were two freshmen courses (i.e. 1000 level), four sophomore level, nine junior level, and seven senior level courses yielding a total of

869 evaluations. Seventeen instructors participated with nine of those being full professors, two associate professors, five assistant professors, and one graduate instructor.

The proctor was introduced by the instructor of the course prior to the evaluations being distributed. Evaluations were completed within the first two weeks of the fall 2007 semester with the time of the evaluation being determined by the instructor to allow for the least amount of intrusion to the instructor. Notes were also made as to what point in the class the evaluation was completed (*Beg, Middle, End*) as well as whether the class occurred in the morning or afternoon (*Time* which was a dummy variable with 1 equal to an afternoon class). The *Day* variable is which class meeting the evaluation was completed and includes the number of lab sessions if applicable. Students were informed to fill in the bubbles best describing their feelings on the instructor and course at that point in the semester. Participation was voluntary and anonymous. Written comments were not collected as they would be hard to quantify or provide meaningful insight to this research. The summary statistics are provided in table 2.

Two models were estimated, one using "overall INSTRUCTOR appraisal" and "Overall, this is a GOOD course". An ordered probit model was estimated for each model due to the ordered nature of the data included in the evaluations. Not all the variables included were ordered in nature. Variables such as class size (continuous) as well whether the course was new, assistant, associate, or full professor, and point in time the evaluation was completed (dummy variables) were included. Answers for *Purpose* were elective (coded as 0), general studies, related to major, and major (4) while *Type* of course allowed answers of lecture (4), lab, IPI, short course, and other (coded as 0). Students were coded as majors in CASNR or not.

The literature on SET suggests that differences exist between upper division (i.e. junior and senior level courses) and lower division (freshman and sophomore) courses in terms of

results. A pooled model was estimated along with models for upper and lower division courses. A likelihood ratio test was conducted to determine the appropriateness of the pooled model versus the separate models for both upper and lower division courses. Forty-one "common" variables were estimated in the three models (pooled, upper division, and lower division). Some variables such as rank of the professor and time of the evaluation were not common between the upper and lower division models causing them to be left out so collinearity would not become an issue. The log likelihood ratio values for the course model for the pooled model and the sum of the upper division and lower division models are, respectively, -458.300 and -429.614 with the test statistic being 57.373; the log likelihood ratio values for the instructor model for the pooled model and the sum of the upper and lower division models are, respectively, -379.310 and -348.659 with the test statistic being 61.301. The X^2 value for the test was 58.12, thus rejecting the null hypothesis that there is no difference between the pooled, upper division, and lower division models in only the overall instructor appraisal model.

Results are shown for the upper and lower division instructor appraisal in table 3 and 4, respectively, and for the pooled model of overall course appraisal in table 5. Care should be used when reading results as provided coefficients are reflective of the probability of being rated lower as an instructor/course given an increase in the independent variable, *ceteris paribus*. Not surprisingly, the manner in which the instructor presents the material is highly significant regardless of division level. This is consistent with Merritt (2007) in regards to how material is presented impacts the initial impressions of students. Although in this instance, presentation is limited to the students' ranking of the instructor's presentation of the material. Some unconscious biases may be present in student responses however. Instructors' ability to explain the subject matter as well as their effort devoted to teaching were also factors that affected

overall instructor appraisal. Students completing the evaluations were not told what rank the instructor is by the proctor, but it's interesting to note that assistant professors were rated significantly different than instructors in lower division course (the reference criterion) and full professors in upper division courses (the reference criterion). *Class size* was only significant in lower division courses, but this is not surprising due to the majority of participating classes having at least ninety students.

The model for how students felt about whether or not this is a good course suggests a student's perceptions about workload, tests, and how worthwhile the class is are the major factors affecting initial impressions. Students who feel more strongly about these attributes are more likely to have positive impressions of the course. Upper division courses were more likely to be rated lower than lower division courses while courses with students perceiving a difference in courses taught by instructors of different ranks. Students had previously had the instructor were also more likely to rate the course lower than students who had no previous experience with the instructor. As with the models regarding instructor appraisal, students want instructors of their courses to be fair. Courses that were evaluated at the end of were rated higher than those evaluated at the beginning or middle of class. It is possible that students were rushing to get through the questionnaire and were not completely truthful in their responses although this was not an issue with the model for instructor appraisal in upper division classes.

Conclusions

Students have a multitude of sources on which to base expectations of instructors and courses in SET from friends to professors to web resources to actual experiences with the instructor in the first few days of a course. Instructors that understand what forms the pre-impressions and initial

impressions of students can control certain factors to make the experience more worthwhile for students as well as have a more accurate glimpse into ways to motivate students through assignments, lectures, and exams. Determinants of pre-impressions and first impressions of instructor and course appraisal are examined in this research. Factors both under the instructor's control as well factors outside of his/her control were examined.

As found in Fleming, Bazen, and Wetzstein (2005) and Merritt (2007), instructors that present the material in a manner the students find appealing will see improved SET scores. In addition to effective presentation of material, instructors that are seen as entertaining will have higher scores in regards to overall instructor appraisal. Instructors should not however sacrifice students perceiving them as fair. It is likely that students want you to be fair to them individually as opposed to the class as a whole. Surprisingly students' expected grade was not significant in terms of the rating of the instructor or course. This finding was one of the more surprising results since the literature is clear that grades do impact SET scores and that grade inflation may result from instructors being lenient on grading in return for higher SET scores.

Despite concerns regarding the prevalence of websites that allows students' ratings of professors to be widely viewed, website recommendations are only slightly significant factors that form student impressions of an instructor and this is only a factor for instructors teaching in upper division courses. Students may not view these websites as credible themselves or a lack of awareness may factor into this result. As this was only significant for upper division courses, it is possible that curriculum designs prevent these references from affecting the decision to enroll in a course. Of course, there is the potential for a selection bias to be present, i.e. students who use these websites chose not to enroll in these classes and were not part of the sample population. Students in lower division courses rely on the advice of professors (potentially their faculty

advisors) in forming opinions of those courses' instructors. As a result, professors should be aware of the weight of their words when advising students as negative comments will increase the probability of a student giving the instructor a poor overall instructor appraisal.

This research found there to be no difference between student ratings of upper and lower division courses. However students did perceive differences in courses taught by a graduate student versus a full professor. Instructors may find solace in the fact that students are seemingly able to separate the classroom, in-class distractions, and their level of focus from impacting SET scores of the course or instructor.

While this research does shed light on what factors drive pre-impressions and initial impressions of a course and instructor, it falls short in shedding light in on how lasting these initial impressions are on the final, end of semester SET. If these initial impressions are lasting, the validity of the SET has to be called into serious question as a measure of instructor effectiveness. Some literature suggests that SET measure quick, snap judgments that are subconscious and uncontrollable on the student's part (Merritt, 2007). If this is the case, more appropriate ways of measuring instructor effectiveness should be developed that cause a student to engage more than just a snap judgment in assessing the effectiveness of the instructor and course.

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Table 1. Questions asked on Actual Oklahoma State University's SET form

Question Number	Variable Name	Question
Student Characteristics		
1	*Gender*	My gender is
2	*InstGender*	My instructor's gender is
3	*College**	My college is
4	*Class**	Classification
5	*Purpose**[a]	Purpose for taking the course
6	*Required**	Course was required
7	*Type**[b]	Type of course
8	*PrevCourse*	I have had a course in this subject before
9	*PrevInstr*	I have taken a course taught by this instructor before
10	*Ratings*	I usually give lower ratings to instructors who require a lot of work
11	*CourseValue*[c]	I think that courses that require a lot of work are more valuable than courses that do not
Instructor Characteristcs		
12	*Prep**[d]	Preparation and effort
13	*TeachEffort**[d]	Effort devoted to teaching
14	*Present**[d]	Presentation of material
15	*Knowledge**[d]	Knowledge of subject
16	*Explain**[d]	Ability to explain subject matter
17	*Attitude**[d]	Positive attitude toward students
18	*InstrOverall**[d]	Overall INSTRUCTOR appraisal
Course Characteristics		
19	*Workload**[e]	The workload is appropriate for the hours of credit
20	*Assignments**[e]	Assignments are relevant and useful
21	*Tests**[e]	Testing and evaluation procedures are good
22	*Involve**[e]	Students are adequately involved
23	*Worthwhile*[e]	This course is worthwhile to me
24	*CourseOverall**[e]	Overall, this is a GOOD course
Student Views		
25a	*TeachStyle*[e]	I signed up for this course because I like the professor's teaching style
25b	*OneSection*[c]	I signed up for this course because required & only section
25c	*FriendRec*[e]	I signed up for this course because professor recommended by friend
25d	*WebRec*[e]	I signed up for this course because professor recommended by website
25e	*ProfRec*[e]	I signed up for this course because professor recommended by another professor
25f	*SubInterest*[e]	I signed up for this course because subject of interest to me
25g	*Goodgrade*[e]	I signed up for this course because I thought it easy to make good grade
26	*Syllabus*[e]	The syllabus is an active reflection of the course experience
27	*ActiveInvolve*[e]	The instructor is able to actively involve me in class
28	*Entertain*[e]	The instructor is entertaining
29	*Ask*[e]	I don't like to ask questions during class time
30	*Answer*[e]	I don't like to answer questions during class time
31	*Fair*[e]	The instructor treats students fairly
32	*CalledOn*[e]	I don't like to be called on during class time
33	*Focus*[e]	I am able to maintain focus in class
34	*Visualaids*[e]	Learning in this class is aided by charts, graphs, and presentations
35	*Stories*[e]	Learning in this class is aided by stories, games, and real world applications
36	*Classroom*[e]	The classroom negatively impacts my perception of the course and instructor
37	*Distract*[e]	Distractions from other students negatively impact my perception of the course
38	*ExpAttendance*[f]	I expect to miss the following number of classes
39	*ExpGrade*	I expect my grade to be

[a] Options were Major, Related to Major, General Studies, or Elective.

[b] Options were Lecture, Lab, IPI, Short Course, or Other.

[c] Options were Yes, No, or Undecided.

[d] Options were Very High, High, Average, Low, or Very Low.

[e] Options were Definitely Yes, Yes, Undecided, No, Definitely No, or Not Applicable.

[f] Options were 0 to 2 classes, 3 to 4 classes, 5 to 7 classes, or more than 7 classes.

* Questions asked at the end of semester OSU evaluations are denoted by *.

Table 2. Summary Statistics: Mean, Standard Deviation, and Data Range

		All Courses			Upper Division Courses			Lower Division Course		
Variable	Data Range	N	Mean	Standard Deviation	N	Mean	Standard Deviation	N	Mean	Standard Deviation
Dependent variables										
InstrOverall	0-4	863	3.501	0.709	442	3.652	0.556	421	3.342	0.812
CourseOverall	0-4	867	1.894	1.707	444	2.185	1.704	423	1.589	1.657
Student Characteristics										
Gender	0-1	866	0.547	0.498	444	0.547	0.498	422	0.547	0.498
College	0-1	867	0.950	0.217	444	0.991	0.095	423	0.908	0.290
Class	0-4	867	1.939	1.083	444	2.588	0.661	423	1.258	1.020
Purpose	0-3	867	2.326	0.747	444	2.336	0.762	423	2.317	0.731
Required	0-1	867	0.817	0.387	444	0.723	0.448	423	0.915	0.279
Type	0-4	867	3.888	0.461	444	3.914	0.432	423	3.861	0.489
PrevCourse	0-1	863	0.304	0.460	440	0.441	0.497	423	0.161	0.368
PrevInstr	0-1	865	0.133	0.340	442	0.235	0.425	423	0.026	0.159
Ratings	0-1	866	0.127	0.333	444	0.115	0.319	422	0.140	0.347
CourseValue	0-2	865	0.828	0.768	444	0.687	0.741	421	0.976	0.768
Instructor Characteristics										
Prep	0-4	865	3.327	0.730	444	3.421	0.689	421	3.228	0.759
TeachEffort	0-4	864	3.422	0.695	443	3.521	0.625	421	3.318	0.749
Present	0-4	863	3.389	0.719	442	3.520	0.621	421	3.252	0.786
Knowledge	0-4	863	3.194	0.791	442	3.292	0.761	421	3.090	0.809
Explain	0-4	862	3.538	0.665	441	3.578	0.606	421	3.496	0.719
Attitude	0-4	862	3.276	0.785	441	3.385	0.727	421	3.162	0.827
Full Professor	0-1	867	0.632	0.483	444	0.563	0.497	423	0.704	0.457
Associate Professor	0-1	867	0.070	0.256	444	0.137	0.345	423	0.000	0.000
Assistant Professor	0-1	867	0.265	0.442	444	0.300	0.459	423	0.229	0.421
Instructor	0-1	867	0.032	0.177	444	0.000	0.000	423	0.066	0.249
InstGender	0-1	867	0.247	0.431	444	0.200	0.401	423	0.296	0.457
Course Characteristics										
Workload	0-4	867	1.642	1.687	444	2.250	1.936	423	1.222	1.608
Assignments	0-4	867	1.660	1.699	444	2.079	1.687	423	1.220	1.599
Tests	0-4	867	1.161	1.617	444	1.462	1.700	423	0.846	1.461
Involve	0-4	867	1.964	1.673	444	2.399	1.583	423	1.508	1.645
Worthwhile	0-4	867	2.165	1.639	444	2.450	1.601	423	1.865	1.627
Class size	6-230	867	106.747	79.187	444	50.554	28.534	423	165.730	72.136
Upper Division Course	0-1	867	0.512	0.500	444	1.000	0.000	423	0.000	0.000
Lower Division Course	0-1	867	0.488	0.500	444	0.000	0.000	423	1.000	0.000
Time	0-1	867	0.418	0.493	444	0.446	0.498	423	0.388	0.488
New Course	0-1	867	0.027	0.161	444	0.052	0.222	423	0.000	0.000
Day	1-5	867	2.902	1.060	444	3.074	1.143	423	2.721	0.933
Beginning	0-1	867	0.892	0.311	444	0.788	0.409	423	1.000	0.000
Middle	0-1	867	0.021	0.143	444	0.041	0.197	423	0.000	0.000
End	0-1	867	0.088	0.283	444	0.171	0.377	423	0.000	0.000
Student Views										
TeachStyle	0-4	867	1.323	1.549	444	1.613	1.648	423	1.019	1.375
OneSection	0-2	867	1.294	0.827	444	1.381	0.821	423	1.203	0.824
FriendRec	0-4	867	1.449	1.400	444	1.597	1.412	423	1.293	1.373
WebRec	0-4	867	1.143	1.181	444	1.221	1.185	423	1.061	1.173
ProfRec	0-4	867	1.393	1.326	444	1.570	1.345	423	1.208	1.282
SubInterest	0-4	867	1.849	1.561	444	2.178	1.553	423	1.504	1.494
Goodgrade	0-4	867	1.213	1.285	444	1.318	1.339	423	1.104	1.217
Syllabus	0-4	867	1.772	1.680	444	2.088	1.667	423	1.440	1.631
ActiveInvolve	0-4	867	1.990	1.670	444	2.495	1.545	423	1.459	1.633
Entertain	0-4	867	2.511	1.588	444	3.032	1.315	423	1.965	1.665
Ask	0-4	867	1.839	1.403	444	1.935	1.373	423	1.738	1.429
Answer	0-4	867	1.837	1.360	444	1.957	1.332	423	1.712	1.379
Fair	0-4	867	2.295	1.631	444	2.727	1.477	423	1.842	1.663
CalledOn	0-4	867	1.937	1.417	444	2.077	1.362	423	1.790	1.461
Focus	0-4	867	2.278	1.480	444	2.599	1.333	423	1.941	1.551
Visualaids	0-4	867	1.933	1.668	444	2.327	1.564	423	1.520	1.676
Stories	0-4	867	2.021	1.680	444	2.536	1.535	423	1.480	1.656
Classroom	0-4	867	1.304	1.141	444	1.387	1.108	423	1.217	1.170
Distract	0-4	867	1.466	1.245	444	1.586	1.181	423	1.340	1.298
ExpAttendance	0-3	860	0.241	0.549	439	0.253	0.551	421	0.228	0.548
ExpGrade	0-4	862	3.687	0.599	440	3.732	0.506	422	3.640	0.681

Table 3. Ordered Probit Estimation Results for Upper Division Instructor Appraisal[a]

Variable	Parameter Estimate	Standard Error
Intercept	-5.864***	1.819
Threshold parameter 2	3.237***	0.312
Student Characteristics		
Gender	-0.513**	0.234
College	-1.275	0.908
Class	0.336*	0.197
Purpose	-0.102	0.170
Required	-0.480	0.322
Type	-0.486**	0.210
PrevCourse	0.389	0.239
PrevInstr	-0.505	0.374
Ratings	-0.209	0.320
CourseValue	-0.177	0.149
Instructor Characteristics		
Prep	-0.021	0.242
TeachEffort	-0.489*	0.251
Present	-1.988***	0.258
Knowledge	0.346	0.225
Explain	-0.634***	0.210
Attitude	-0.562**	0.222
Associate Professor	-0.073	0.458
Assistant Professor	-1.093***	0.395
InstGender	1.591***	0.519
Course Characteristics		
Class size	0.005	0.009
Time	0.641*	0.356
New Course	-0.202	0.565
Day	-0.145	0.134
Middle	-0.942	0.986
End	0.668	0.689
Student Views		
TeachStyle	0.123	0.092
OneSection	0.146	0.111
FriendRec	0.042	0.138
WebRec	0.333*	0.172
ProfRec	-0.064	0.132
SubInterest	-0.216**	0.091
Goodgrade	-0.061	0.099
Syllabus	0.171*	0.089
ActiveInvolve	-0.133	0.089
Entertain	-0.202**	0.089
Ask	0.061	0.124
Answer	0.008	0.129
Fair	-0.174**	0.082
CalledOn	0.038	0.101
Focus	-0.006	0.084
Visualaids	0.182**	0.085
Stories	0.011	0.093
Classroom	-0.146	0.114
Distract	-0.005	0.108
ExpAttendance	-0.195	0.186
ExpGrade	0.110	0.195

[a] Upper division courses baseline assumption is non-CASNR male student in upper division course taught by male full professor who completed evaluation at beginning of the class period. n=432
*, **, and *** represent significance at the 90%, 95%, and 99% level, respectively.
Note: Model pseudo-R^2 = 0.643.

Table 4. Ordered Probit Estimation Results for Lower Division Instructor Appraisal[a]

Variable	Parameter Estimate	Standard Error
Intercept	-7.992***	2.281
Threshold parameter 2	1.988**	0.768
Threshold parameter 3	4.357***	0.790
Threshold parameter 4	6.600***	0.825
Student Characteristics		
Gender	0.302*	0.165
College	-0.172	0.265
Class	0.170*	0.100
Purpose	0.197*	0.117
Required	-0.238	0.295
Type	-0.003	0.143
PrevCourse	0.376*	0.216
PrevInstr	-0.306	0.726
Ratings	-0.181	0.217
CourseValue	0.035	0.114
Instructor Characteristics		
Prep	0.060	0.180
TeachEffort	-0.547***	0.174
Present	-1.589***	0.159
Knowledge	0.221	0.153
Explain	-0.303**	0.124
Attitude	-0.159	0.124
Full Professor	-1.506	1.013
Assistant Professor	-1.744**	0.684
InstGender	0.114*	0.758
Course Characteristics		
Class size	0.011***	0.003
Time	2.012	1.366
Day	-1.632**	0.787
Student Views		
TeachStyle	0.082	0.070
OneSection	-0.021	0.081
FriendRec	0.047	0.095
WebRec	0.178	0.135
ProfRec	-0.255**	0.125
SubInterest	-0.069	0.063
Goodgrade	0.064	0.084
Syllabus	0.202***	0.067
ActiveInvolve	0.091	0.076
Entertain	-0.141**	0.071
Ask	0.189**	0.089
Answer	0.032	0.092
Fair	-0.183**	0.079
CalledOn	-0.093	0.083
Focus	0.000	0.066
Visualaids	-0.035	0.083
Stories	0.019	0.079
Classroom	-0.081	0.087
Distract	-0.019	0.074
ExpAttendance	0.013	0.135
ExpGrade	0.159	0.111

[a] Lower division courses baseline assumption is non-CASNR male student in lower division course taught by male instructor who completed evaluation at beginning of the class period. n=418

*, **, and *** represent significance at the 90%, 95%, and 99% level, respectively.

Note: Model pseudo-R^2 = 0.504.

Table 5. Ordered Probit Estimation Results for Pooled Course Appraisal[a]

Variable	Parameter Estimate	Standard Error
Intercept	-4.077***	0.892
Threshold parameter 1	0.022*	0.012
Threshold parameter 2	2.248***	0.117
Student Characteristics		
Gender	-0.047	0.110
College	-0.293	0.288
Class	0.056	0.075
Purpose	-0.150*	0.086
Required	0.117	0.171
Type	0.176	0.126
PrevCourse	-0.084	0.126
PrevInstr	0.547***	0.207
Ratings	0.018	0.162
CourseValue	0.048	0.070
Instructor Characteristics		
Full Professor	-1.034**	0.425
Associate Professor	-1.356***	0.439
Assistant Professor	-1.041***	0.373
InstGender	0.048	0.251
Course Characteristics		
Workload	-0.139***	0.044
Assignments	-0.108**	0.047
Tests	-0.192***	0.043
Involve	-0.110**	0.045
Worthwhile	-0.600***	0.047
Class size	0.002	0.002
Upper Division Course	0.548**	0.248
Time	-0.268	0.185
New Course	-0.260	0.421
Day	0.037	0.093
Middle	-0.606	0.480
End	-0.500*	0.261
Student Views		
TeachStyle	-0.002	0.040
OneSection	0.043	0.050
FriendRec	-0.034	0.055
WebRec	0.002	0.070
ProfRec	0.018	0.060
SubInterest	-0.011	0.043
Goodgrade	-0.041	0.051
Syllabus	-0.041	0.039
ActiveInvolve	-0.052	0.045
Entertain	-0.028	0.053
Ask	0.092	0.057
Answer	-0.049	0.061
Fair	-0.138***	0.050
CalledOn	0.059	0.051
Focus	-0.026	0.045
Visualaids	-0.016	0.046
Stories	-0.017	0.048
Classroom	-0.016	0.058
Distract	0.032	0.051
ExpAttendance	-0.060	0.098
ExpGrade	-0.066	0.098

[a] Baseline assumption is non-CASNR male student in lower division course taught by male instructor who completed evaluation at beginning of the class period. n=853

*, **, and *** represent significance at the 90%, 95%, and 99% level, respectively.

Note: Model pseudo-R^2 = 0.515.