

Determinants of Students' First Impressions of Instructors and Courses¹

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Abstract

Student evaluations of instructors and courses in the first two weeks of the fall semester determine the factors that form impressions in the early stages of the semester. Results indicate differences exist between upper and lower level courses with presentation of material and perceived worth of the course as key factors that students use to form first impressions. Students' expected grade and gender bias have little impact upon rating of instructor or course characteristics. Syllabi that are perceived by students to reflect the course experience can help mold first impressions.

Introduction

The ability to make a positive first impression in the classroom is important to faculty whose only measure of teaching performance is based on student evaluations of teaching (SET). Merritt (2008) 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. Even the use of such descriptive words such as "warm" or "cold" can have a biasing effect that is demonstrated in Widmeyer and Loy (1988) where students are more likely to give more favorable ratings to guest lecturers described as "warm" when compared to guest lecturers described as "cold." Guest lecturers that are described as "warm" are more likely to be rated by students as more intelligent and interesting than those lecturers receiving the "cold" descriptor.

Students' potential information sources on instructors and courses are not limited to previous experiences with instructors, friends, and major advisors. These sources of information can impact the student's plan of study and course sequencing to avoid a perceived unfavorable instructor. In addition to those sources of information are websites (including www.profeval.com, [and \[www.pickaprof.com\]\(http://www.pickaprof.com\)\) that provide students the opportunity to publicly evaluate instructors and courses. While these websites have an unknown impact on their use in regards to students' course enrollment patterns, the popular social networking site Facebook has partnered with PickAProf.com allowing persons to view the student's schedule and instructors as well as grade distributions for those instructors.](http://www.ratemyprofessors.com,</p></div><div data-bbox=)

The human tendency to hold to initial impressions is well documented in the psychological literature (Rabin and Schrag, 1999). Rabin and Schrag (1999) find that even in the presence of additional information, a person will hold to their formed hypotheses and misinterpret information to support previously held hypotheses. This finding by Rabin and Schrag (1999) combined with the information from Merritt's (2008) meta-analysis suggests that information students obtain in the initial interactions with an instructor or course impact hypotheses that are expressed on end of semester evaluations. The objective of this paper is to determine those factors that most impact initial impressions of students in regard to course and instructor appraisal including the importance of outside sources of information.

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 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 (Hilt, 2001). Others question the validity and reliability of SET (Rotem and Glasman, 1979) while McKeachie (1997) concludes that validity of SET is not as serious as some instructors believe it to be. More extensive reviews of the SET literature may be found in Cohen (1980;

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1981), Costin et al. (1971), Marsh (1984), and Wachtel (1998).

Fleming et al. (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 including how many hours a week the student studied, what time the class met and whether the course was required (Fleming et al., 2005). Externalities also tie into the idea of "consumerism" which has recently appeared in the SET literature (Delucchi, 2000; Germain and Scandura, 2005). 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, a disconnect occurs between what the SET are designed to measure and what they actually measure. Delucchi (2000) finds that students who rate instructors high in likability rate the instructor highly in overall teaching ability despite an association with lower student perceptions of learning.

Students may not consciously be thinking of how they will rate instructors at the end of the semester, but there is evidence that limited interaction with an instructor can predict correctly end of semester evaluation scores. An example of this is exhibited in Ambady and Rosenthal (1993) who show silent thirty second clips of teachers' to undergraduate raters whose scores significantly predicted end of semester evaluations. Only female raters are shown clips of the college teacher due to the belief females are better able to rate nonverbal behavior. Merritt (2008) notes that standard SETs are constructed in such a manner as to rely on students' instinctive judgments as opposed to reflective judgments. A student's motivation to succeed in a course might be the result of a student's impression of the instructor and course (Feldman, 1977). This suggests that instructors who sufficiently motivate a course to be viewed as worthwhile by students may be able to increase ratings. End of term ratings in a study conducted by Remedios and Lieberman (2008) are found to be impacted by the student's perception of the worth of the course.

Bejar and Doyle (1976) conduct an evaluation at the beginning and end of a summer semester. Initial evaluations are conducted on the first day of the course prior to the students seeing the instructors, with none of the 76 participating students knowing the identity of the instructor. Factor analysis determines that students are able to separate their expectations from the evaluations despite the structures of expectations and final evaluations being similar. Bejar and Doyle (1976) state this relationship might be the result of the learning process from previous instructors which is similar to McKeachie's (1997) statement regarding the lower validity of evaluations in lower level courses due to lack of a broad educational experience. Additionally, Bejar and

Doyle (1976) note that since this research is conducted in the summer term, it might lead to more or less homogenous results compared to a regular semester. Kohlan (1973) administers evaluations in selected classes at the end of the second class hour and again during the last week of the semester. Results of the study find that evaluations conducted early in the semester are stable across the semester. Kohlan (1973) suggests this may be due to the fact that little new information regarding the ability of the instructor is presented after the first few classes and underlines the importance of positive early impressions.

Conceptual Model

The Midwest land grant university participating in the study allows students to evaluate instructors and courses on several different factors of instructor and course related variables. 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 a good course from definitely yes to definitely no. Although it is unconventional to ask students to evaluate courses and instructors in the first two weeks of a course, students have already formed opinions of that course and instructor. These opinions are based, in part, on expectations that are formed from other students, websites, and major advisors. The information students gather 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.

The nature of the evaluation at the university allows for variables that directly impact instructor and course appraisal to be analyzed. The hypothesized functions are specified as: (1) $\text{InstrOverall} = f(\text{Prep, TeachEffort, Present, Knowledge, Explain, Attitude})$ and (2) $\text{CourseOverall} = f(\text{Workload, Assignments, Tests, Involve, Worthwhile})$ where InstrOverall (CourseOverall) is the overall instructor (course) appraisal. Prep is the preparation and effort. TeachEffort is the effort devoted to teaching. Present is the presentation of material. Knowledge is knowledge of subjects. Explain is the ability to explain subject matters. Attitude is a positive attitude toward students. Workload is a course workload appropriate for the hours of credit. Assignments represents useful and relevant assignments. Test is whether testing and evaluations procedures are good. Involve is whether students are adequately involved, and Worthwhile is whether the course is worthwhile to the student.

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The equations in the previous paragraph allow for the determination of the factors that most influence instructor (course) appraisal at the beginning of the semester. Variables that are found to be significant in equation (1) or (2) are then hypothesized to be a function of variables that are related to the student, instructor, course, or views of the students. More succinctly, $(3)Y = (\text{Student, Instructor, Course, Student Views})$, where Y is the instructor (course) related variable of interest, Student is a vector that includes characteristics of the student such as gender of the student and the gender of the instructor being evaluated, classification, and previous courses in the subject matter, Instructor is a vector of variables including the rank of the instructor, 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. Figure 1 is a copy of the actual evaluation instrument.

Procedures

Twenty-two courses across the college of agriculture 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 participating courses, one course is a first time offering while another course is taught for the first time by a graduate instructor. There are two freshmen level courses (i.e. 1000 level), four sophomore level, nine junior level, and seven senior level courses yielding a total of 867 evaluations. A total of 17 instructors (11 male, 6 female) participated with nine of those being full professors, two associate professors, five assistant professors, and one graduate instructor.

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 course intrusion. Students were informed to select the best choice describing their feelings on the instructor and course at that point in the semester. Participation was voluntary and anonymous.

Empirical Results

Summary statistics are provided in Table 1. Female students comprised 55% of completed evaluations. Students were coded as majors in the college of agriculture or not due to only 5% of participating

Initial questionnaire

STUDENT SURVEY OF INSTRUCTION – OKLAHOMA STATE UNIVERSITY

Student surveys are conducted for every instructor and course at Oklahoma State University. Information gained from this survey will be useful to the instructor, the department, students, and administrators responsible for instruction at OSU. You are asked to give some information about yourself, then your views of the INSTRUCTOR and then your views of the COURSE.

All questions below are to be answered by blackening with a #2 pencil the appropriate answer space at the bottom of the page. Please make broad pencil marks that completely fill the area indicated. Do not mark beyond the edges of the circles, and erase any pencil marks you wish to delete.

Your identification code is based on the first letter of the high school you graduated from, the month you were born in expressed as two digits (January = 01, February = 02, etc.), and the last two digits of your student identification number. Your instructor will never see your identification number or will see your individual answers.

Please enter your code here: _____

FOR items 1 through 10 mark your responses in answer spaces 1 through 5 below.

1. My gender is: A Male B Female (A) (B)

2. My instructor's gender: A Male B Female (A) (B)

3. My college is: A Agriculture B Arts and Sciences C Business
D Education E Engineering F Graduate G Human Environmental
Sciences H School of Technology I Veterinary Medicine J None of these (A) (B) (C) (D) (E) (F) (G) (H) (I) (J)

4. Classification: A Freshman B Sophomore C Junior D Senior
E Graduate or Special (A) (B) (C) (D) (E)

5. Purpose for taking course: A Major B Related to Major C General
Studies D Elective (A) (B) (C) (D)

6. Course was required: A Yes B No (A) (B)

7. Type of course: A Lecture B Lab C IPI D Short Course E Other (A) (B) (C) (D) (E)

8. I have had a course in this subject before: A Yes B No (A) (B)

9. I have taken a course taught by this instructor before: A Yes B No (A) (B)

10. I usually give lower ratings to instructors who require a lot of work:
A Yes B No (A) (B)

11. I think that courses that require a lot of work are more valuable
than courses that do not: A Yes B No C Undecided (A) (B) (C)

FOR items 12 through 18 RANK THE INSTRUCTOR using this scale:
(A) Very High (B) High (C) Average (D) Low (E) Very Low

12. Preparation and effort (A) (B) (C) (D) (E)

13. Effort devoted to teaching (A) (B) (C) (D) (E)

14. Presentation of material (A) (B) (C) (D) (E)

15. Knowledge of subject (A) (B) (C) (D) (E)

16. Ability to explain subject matter (A) (B) (C) (D) (E)

17. Positive attitude toward students (A) (B) (C) (D) (E)

18. Overall INSTRUCTOR appraisal (A) (B) (C) (D) (E)

Figure 1. Student survey of instruction

Re-enter your identification number from the previous page here: _____

FOR items 19 through 37 give your views of THE COURSE using this scale:
(A) Definitely yes (B) Yes (C) Undecided (D) No (E) Definitely no (F) Not applicable

19. The workload is appropriate for the hours of credit. (A) (B) (C) (D) (E) (F)

20. Assignments are relevant and useful. (A) (B) (C) (D) (E) (F)

21. Testing and evaluation procedures are good. (A) (B) (C) (D) (E) (F)

22. Students are adequately involved. (A) (B) (C) (D) (E) (F)

23. This course is worthwhile to me. (A) (B) (C) (D) (E) (F)

24. Overall, this is a good COURSE. (A) (B) (C) (D) (E) (F)

25. I signed up for this course because:

 (A) I like the professor's teaching style (A) (B) (C) (D) (E) (F)

 (B) Required & only section (A) (B) (C) (D) (E) (F)

 (C) Professor recommended by friend (A) (B) (C) (D) (E) (F)

 (D) Professor recommended by website (A) (B) (C) (D) (E) (F)

 (E) Professor recommended by another professor (A) (B) (C) (D) (E) (F)

 (F) Subject of interest to me (A) (B) (C) (D) (E) (F)

 (G) I thought it easy to make good grade (A) (B) (C) (D) (E) (F)

26. The syllabus is an active reflection of the course experience. (A) (B) (C) (D) (E) (F)

27. The instructor is able to actively involve me in class. (A) (B) (C) (D) (E) (F)

28. The instructor is entertaining. (A) (B) (C) (D) (E) (F)

29. I don't like to ask questions during class time. (A) (B) (C) (D) (E) (F)

30. I don't like to answer questions during class time. (A) (B) (C) (D) (E) (F)

31. The instructor treats students fairly (A) (B) (C) (D) (E) (F)

32. I don't like to be called on during class time. (A) (B) (C) (D) (E) (F)

33. I am able to maintain focus in class. (A) (B) (C) (D) (E) (F)

34. Learning in this class is aided by charts, graphs, and presentations. (A) (B) (C) (D) (E) (F)

35. Learning in this class is aided by stories, games, and real world applications. (A) (B) (C) (D) (E) (F)

36. The classroom negatively impacts my perception of the course and instructor. (A) (B) (C) (D) (E) (F)

37. Distractions from other students negatively impact my perceptions of the course. (A) (B) (C) (D) (E) (F)

38. I expect to miss the following number of classes this semester:

 A 0 to 2 classes B 3 to 4 classes C 5 to 7 classes

 D More than 7 classes

39. I expect my grade to be: (A) (B) (C) (D) (E) (F)

Figure 1. Continued

students not majoring in agriculture. The majority of evaluations were completed at the beginning of the class period (89%).

An ordered probit model is estimated for each model due to the ordered nature of the data in the evaluations. Distances between students' ratings (e.g. average to low or definitely yes to yes) are not discrete and is accounted for by the ordered probit model (Greene, 2003). The literature on SET suggests that differences exist between upper level (i.e. junior and senior level courses) and lower level (freshman and sophomore) courses in terms of

results (Whitworth et al., 2002; McKeachie, 1997). A pooled model is estimated along with models for upper and lower level courses. A likelihood ratio test is conducted to determine the appropriateness of the pooled model versus the separate models for both upper and lower level courses. Tests for the instructor and course models mentioned above in equations (1) and (2) reject the null hypothesis that there is no difference between the pooled, upper level, and lower level models.

Results from the instructor appraisal with associated marginal effects are shown in Tables 2 and 3, respectively, and the course appraisal model and associated marginal effects are shown in Tables 4 and 5, respectively. In developing early impressions of the instructor, students in upper level courses are most influenced by the instructor's attitude, ability to explain, and most importantly, the presentation of material while students in lower level courses are most influenced by the effort devoted to teaching and presentation. This finding is consistent with Merritt (2007) in regards to the impact on the initial impressions of how material is presented. However, in our study we have not defined what factors students include in "presentation." The marginal effects shown in Table 4

further illustrate the impact of presentation. Students who increase their rating of an instructor's presentation skills by one unit are 44% more likely to rate the instructor appraisal score "very high."

Unlike course related variables, students were not given the option to rate instructors as "undecided" or "not applicable." Initial impressions of courses at both the upper and lower course level found all the independent variables significant at varying levels. Rather unsurprisingly, students who found a course worthwhile were more likely to give

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the course a higher overall rating and this was the most important variable in the model as denoted by the magnitude of the coefficient.

Variables that are highly significant in the initial models are then regressed against other data collected by the questionnaires. The models for presentation of material, effort devoted to teaching, and overall worth of the course are shown and subdivided by upper and lower level courses. The first model uses presentation ability as the dependent variable. The results of this model are shown in Tables 6 and 7 for lower and upper level courses, respectively, as there are significant differences between course levels. Marginal effects for presentation of material are provided for significant variables in Table 8. Somewhat surprisingly, students in lower level courses are more likely to give higher ratings of an instructor's ability to present the material, but this variable is not significant in upper level courses. Students in both lower and upper level courses want instructors to be entertaining although only students in lower level courses wanted to be actively involved during the presentation of material. The desire to be actively involved may be a reflection of large class enrollments in the lower level agricultural courses at the university. Instructors who are seen as fair by students (in upper level courses) are more likely to rate presentation of material higher than those students who did not view their instructors as fair. Although students were not told by the proctor the rank of the instructor, students across course levels did rate instructors differently based on rank. Students in lower level courses rate an instructor higher than full or assistant professors in terms of presentation while stu-

dents in upper level courses are more likely to rate presentation ability higher for assistant or associate professors than for full professors. The instructor rank is used as a proxy for teaching experience, but few instructors in each rank limits more discussion of this variable.

Table 1. Summary Statistics for the Dependent and Independent Variables Used to Explain First Impressions of the Instructor and Overall Course Evaluations, Oklahoma State University, Fall 2007

Variable	Data Range	All Courses			Upper Level Courses			Lower Level Courses		
		N	Mean	Standard Deviation	N	Mean	Standard Deviation	N	Mean	Standard Deviation
Dependent Variables										
<i>InstrOverall^f</i>	0-4	863	3.50	0.71	442	3.65	0.56	421	3.34	0.81
<i>CourseOverall^f</i>	1-5	853	3.78	0.77	440	3.92	0.80	413	3.62	0.72
Student Characteristics										
<i>Gender^g</i>	0-1	866	0.55		444	0.55		422	0.55	
<i>College of Ag Major^h</i>	0-1	867	0.95		444	0.99		423	0.91	
<i>Classⁱ</i>	0-4	867	1.94	1.08	444	2.59	0.66	423	1.26	1.02
<i>Required^j</i>	0-1	867	0.82		444	0.72		423	0.92	
<i>PrevCourse^k</i>	0-1	863	0.30		440	0.44		423	0.16	
<i>PrevInstr^l</i>	0-1	865	0.13		442	0.24		423	0.03	
<i>Ratings^m</i>	0-1	866	0.12		444	0.12		422	0.14	
<i>Male Evaluating Maleⁿ</i>	0-1	867	0.38		444	0.42		423	0.34	
<i>Male Evaluating Femaleⁿ</i>	0-1	867	0.07		444	0.03		423	0.12	
<i>Female Evaluating Maleⁿ</i>	0-1	867	0.37		444	0.38		423	0.37	
<i>Female Evaluating Femaleⁿ</i>	0-1	867	0.17		444	0.17		423	0.18	
Instructor Characteristics										
<i>Prep^o</i>	0-4	865	3.33	0.73	444	3.42	0.69	421	3.23	0.76
<i>TeachEffort^o</i>	0-4	864	3.42	0.70	443	3.52	0.63	421	3.32	0.48
<i>Present^o</i>	0-4	863	3.39	0.72	442	3.52	0.62	421	3.25	0.79
<i>Knowledge^o</i>	0-4	863	3.19	0.79	442	3.29	0.76	421	3.09	0.81
<i>Explain^o</i>	0-4	862	3.54	0.67	441	3.58	0.61	421	3.50	0.72
<i>Attitude^o</i>	0-4	862	3.28	0.79	441	3.39	0.73	421	3.16	0.83
<i>Full Professor^o</i>	0-1	867	0.63		444	0.56		423	0.70	
<i>Associate Professor^o</i>	0-1	867	0.07		444	0.14		423	0.00	
<i>Assistant Professor^o</i>	0-1	867	0.27		444	0.30		423	0.23	
<i>Instructor^o</i>	0-1	867	0.03		444	0.000		423	0.07	
<i>InstGender^g</i>	0-1	867	0.25		444	0.20		423	0.30	
Course Characteristics										
<i>Workload^p</i>	1-5	863	3.64	0.76	443	3.81	0.77	420	3.46	0.71
<i>Assignments^p</i>	1-5	864	3.66	0.76	444	3.84	0.79	420	3.47	0.67
<i>Tests^p</i>	1-5	862	3.46	0.71	442	3.60	0.75	420	3.33	0.63
<i>Involve^p</i>	1-5	862	3.77	0.77	442	3.98	0.75	420	3.56	0.72
<i>Worthwhile^p</i>	1-5	863	3.85	0.79	443	4.01	0.80	420	3.69	0.74
<i>Class size</i>	6-230	867	106.75	79.19	444	50.55	28.53	423	165.73	72.14
<i>Upper Level Course^q</i>	0-1	867	0.51		444	1.00		423	0.00	
<i>Lower Level Course^q</i>	0-1	867	0.49		444	0.00		423	1.00	
<i>New Course^q</i>	0-1	867	0.03		444	0.05		423	0.00	
<i>Day</i>	1-5	867	2.90	1.06	444	3.07	1.14	423	2.72	0.93
<i>Beginning of Period^r</i>	0-1	867	0.89		444	0.79		423	1.00	
<i>Middle of Period^r</i>	0-1	867	0.02		444	0.04		423	0.00	
<i>End of Period^r</i>	0-1	867	0.09		444	0.17		423	0.00	
Student Views										
<i>TeachStyle^s</i>	1-5	791	3.27	0.94	398	3.45	1.05	393	3.09	0.78
<i>OneSection^s</i>	0-2	789	1.33	0.85	400	1.46	0.81	389	1.20	0.88
<i>FriendRec^t</i>	1-5	745	2.97	1.04	375	3.00	1.12	370	2.94	0.96
<i>WebRec^t</i>	1-5	738	2.58	0.85	371	2.53	0.90	367	2.63	0.79
<i>ProfRec^t</i>	1-5	744	2.83	1.01	376	2.89	1.10	368	2.77	0.91
<i>SubInterest^t</i>	1-5	748	3.56	0.97	379	3.79	1.00	369	3.33	0.88
<i>Goodgrade^t</i>	1-5	735	2.76	0.98	371	2.81	1.07	364	2.71	0.86
<i>Syllabus^t</i>	1-5	834	3.68	0.83	424	3.84	0.84	410	3.51	0.79
<i>ActiveInvolve^t</i>	1-5	861	3.77	0.80	442	4.01	0.78	419	3.53	0.73
<i>Entertain^t</i>	1-5	857	4.03	0.84	440	4.29	0.81	417	3.76	0.80
<i>Ask^t</i>	1-5	860	3.14	1.08	442	3.10	1.16	418	3.19	0.99
<i>Answer^t</i>	1-5	860	3.07	1.09	440	3.05	1.16	420	3.08	1.00
<i>Fair^t</i>	1-5	859	3.93	0.80	440	4.14	0.78	419	3.70	0.76
<i>CalledOn^t</i>	1-5	862	3.21	1.10	442	3.18	1.18	420	3.24	1.02
<i>Focus^t</i>	1-5	861	3.75	0.85	441	3.88	0.87	420	3.61	0.80
<i>Visualaids^t</i>	1-5	857	3.70	0.86	438	3.85	0.88	419	3.55	0.81
<i>Stories^t</i>	1-5	857	3.77	0.86	439	4.00	0.85	418	3.53	0.80
<i>Classroom^t</i>	1-5	859	2.46	0.97	439	2.39	0.99	420	2.53	0.94
<i>Distract^t</i>	1-5	858	2.69	1.00	438	2.58	1.04	420	2.81	0.95
<i>ExpAttendance^u</i>	0-3	860	0.24	0.55	439	0.25	0.55	421	0.23	0.55
<i>ExpGrade^v</i>	0-4	862	3.69	0.60	440	3.73	0.51	422	3.64	0.68

^f Very low is 0, Low is 1, Average is 2, High is 3, and Very High is 4.

^g Definitely No is 1, No is 2, Undecided/Not Applicable is 3, Yes is 4, and Definitely Yes is 5.

^h Yes is 1.

ⁱ Female is 1.

^j Freshman is 0, Sophomore is 1, Junior is 2, Senior is 3, and Graduate Student is 4.

^k No is 0, Undecided is 1, and Yes is 2.

^l Zero to two classes is 0, 3 to 4 classes is 1, 5 to 7 classes is 2, and more than 7 classes is 3.

^m An expected grade of F is 0, D is 1, C is 2, B is 3, and A is 4.

Table 2. Variables, Coefficients, and Significance from an Ordered Probit Model Explaining Differences in Initial Overall Instructor Appraisal for Upper and Lower Division Courses, Oklahoma State University, Fall 2007

Variable	Upper Level Courses ^z		Lower Level Courses ^y	
	Parameter Estimate	Standard Error	Parameter Estimate	Standard Error
Intercept	-5.89***	0.55	-0.92**	0.38
Threshold parameter 2	2.51***	0.22	1.44***	0.22
Threshold parameter 3	---	---	3.21***	0.11
Threshold parameter 4	---	---	4.90***	0.13
Instructor Characteristics				
<i>Prep</i>	-0.06	0.18	-0.23	0.15
<i>TeachEffort</i>	0.41*	0.21	0.49***	0.15
<i>Present</i>	1.61***	0.20	1.47***	0.13
<i>Knowledge</i>	-0.26	0.17	-0.20	0.13
<i>Explain</i>	0.47***	0.16	0.07	0.11
<i>Attitude</i>	0.46***	0.17	0.15	0.11

^z Students rated instructors only as very high, high, or average in these courses. 441 observations in this model with a pseudo-R² of 0.52.

^y Students rated instructors only as very high, high, average, low, or very low in these courses. 420 observations in this model with a pseudo-R² of 0.36.

Note: Three asterisks denote significance at the 1% level, two asterisks at the 5% level, and one asterisk at the 10% level.

Table 3. Marginal Effects of Independent Variables on the Overall Instructor Appraisal in Upper and Lower Division Courses, Oklahoma State University, Fall 2007^z

	Marginal Effects				
	Very Low	Low	Average	High	Very High
Overall Instructor Appraisal (Upper Level Courses)					
Preparation and Effort	----	----	0.00	0.02	-0.02
Effort devoted to Teaching	----	----	0.00	-0.11	0.11
Presentation of Material	----	----	0.00	-0.44	0.44
Ability to Explain Subject Matter	----	----	0.00	-0.13	0.13
Positive Attitude Toward Students	----	----	0.00	-0.13	0.13
Overall Instructor Appraisal (Lower Level Courses)					
Preparation and Effort	0.00	0.00	0.02	0.07	-0.09
Effort devoted to Teaching	0.00	0.00	-0.05	-0.15	0.20
Presentation of Material	0.00	0.00	-0.14	-0.44	0.59
Ability to Explain Subject Matter	0.00	0.00	-0.01	-0.02	0.03
Positive Attitude Toward Students	0.00	0.00	-0.02	-0.05	0.06

^z The marginal effects represent the percentage change of the dependent variable rating given a one unit change in the rating of the independent variable. For example, increasing the presentation of material rating by one unit results in the overall instructor appraisal rating being 44% more likely to be "very high."

Table 4. Variables, Coefficients, and Significance from an Ordered Probit Model Explaining Differences in Initial Overall Course Appraisal for Upper and Lower Division Courses, Oklahoma State University, Fall 2007

Variable	Upper Level Courses ^z		Lower Level Courses ^y	
	Parameter Estimate	Standard Error	Parameter Estimate	Standard Error
Intercept	-10.22***	0.64	-7.86***	0.79
Threshold parameter 2	2.11**	0.16	3.72***	0.20
Threshold parameter 3	---	---	6.53***	0.13
Course Characteristics				
<i>Workload</i>	0.20*	0.12	0.43***	0.16
<i>Assignments</i>	0.42**	0.13	0.63***	0.18
<i>Tests</i>	0.34***	0.13	0.47***	0.18
<i>Involve</i>	0.45***	0.12	0.41***	0.13
<i>Worthwhile</i>	1.41***	0.12	1.41***	0.13

^z Students rated courses as definitely yes, yes, and undecided/not applicable. 436 observations in this model with a pseudo-R² of 0.52.

^y Students rated courses as definitely yes, yes, no, and undecided/not applicable. 413 observations in this model with a pseudo-R² of 0.53.

Note: Three asterisks denote significance at the 1% level, two asterisks at the 5% level, and one asterisk at the 10% level.

Table 5. Marginal Effects of Independent Variables on the Overall Course Appraisal in Upper and Lower Division Courses, Oklahoma State University, Fall 2007^z

	Marginal Effects				
	Definitely No	No	Undecided/Not Applicable	Yes	Definitely Yes
Overall Course Appraisal (Upper Level Courses)					
The workload is appropriate for the hours of credit	----	----	-0.06	0.02	0.04
Assignments are relevant and useful	----	----	-0.12	0.04	0.08
Testing and evaluation procedures are good	----	----	-0.10	0.03	0.06
Students are adequately involved	----	----	-0.12	0.04	0.08
This course is worthwhile to me	----	----	-0.39	0.14	0.25
Overall Course Appraisal (Lower Level Courses)					
The workload is appropriate for the hours of credit	----	0.00	-0.16	0.15	0.01
Assignments are relevant and useful	----	0.00	-0.24	0.23	0.01
Testing and evaluation procedures are good	----	0.00	-0.18	0.17	0.01
Students are adequately involved	----	0.00	-0.16	0.15	0.01
This course is worthwhile to me	----	0.00	-0.54	0.52	0.02

^z The marginal effects represent the percentage change of the dependent variable rating given a one unit change in the rating of the independent variable.

The effort devoted to teaching is regressed against all variables with results presented in Tables 9 and 10 with marginal effects in Table 11. The Class variable is significant as students with more earned hours rating instructors' teaching effort lower than students with less earned hours in lower level courses. This may be due to what Fleming et al. (2005) refers to as upperclassmen resenting the fact they are taking lower level courses.

Instructors seen as entertaining, fair, and able to actively involve students are rated higher in teaching effort. This model also saw a student's expected attendance being a significant factor in the rating given to teaching effort across course levels. Expected grade was also marginally significant in predicting the rating given to teaching effort for lower level courses, one of the few times this variable was significant.

A separate ordered probit regression is also estimated for whether students view the course as worthwhile for both lower and upper course levels (results provided in Tables 12 through 14). Upper level students who tend to give lower ratings to courses that require a lot of work have a negative impact on their view of whether or not the course is worthwhile. Students in upper level courses who sign up for a course because they like the teaching style of the instructor are more likely to see a course as worthwhile while students in lower level courses rate the course worthwhile if the subject is of interest. The student's early impressions of the course from the syllabus also play a significant, positive role in early

Table 6. Parameter Estimates and Standard Errors for Variables Used in Ordered Probit Model to Explain Differences in Student's Initial Evaluations of an Instructor's Ability to Present Material in Lower Level Courses

Variable	Parameter Estimate	Standard Error
Intercept	0.71	1.96
Threshold parameter 2	0.09	0.08
Threshold parameter 3	1.49***	0.10
Threshold parameter 4	3.03***	0.11
Student Characteristics		
<i>College</i>	-0.27	0.25
<i>Class</i>	-0.19	0.09
<i>Purpose</i>	0.00	0.11
<i>Required</i>	-0.37	0.29
<i>Type</i>	0.05	0.12
<i>PrevCourse</i>	0.07	0.21
<i>PrevInstr</i>	0.55	0.50
<i>Ratings</i>	-0.15	0.20
<i>CourseValue</i>	0.09	0.08
<i>Female Evaluating Male</i>	0.02	0.17
<i>Male Evaluating Female</i>	0.63	0.91
<i>Female Evaluating Female</i>	0.40	0.97
Instructor Characteristics		
<i>Full Professor</i>	-0.78	1.17
<i>Assistant Professor</i>	-1.28*	0.66
Course Characteristics		
<i>Class size</i>	0.00	0.00
<i>Time</i>	1.64	1.15
<i>Day</i>	-1.21*	0.68
Student Views		
<i>TeachStyle</i>	0.05	0.13
<i>OneSection</i>	-0.03	0.12
<i>FriendRec</i>	0.09	0.11
<i>WebRec</i>	0.03	0.15
<i>ProfRec</i>	0.04	0.12
<i>SubInterest</i>	-0.16*	0.09
<i>Goodgrade</i>	-0.02	0.10
<i>Syllabus</i>	0.32**	0.13
<i>ActiveInvolve</i>	0.23	0.16
<i>Entertain</i>	0.49***	0.15
<i>Ask</i>	-0.12	0.11
<i>Answer</i>	-0.01	0.13
<i>Fair</i>	0.17	0.16
<i>CalledOn</i>	0.10	0.12
<i>Focus</i>	0.22**	0.11
<i>Visualaids</i>	0.14	0.15
<i>Stories</i>	-0.06	0.14
<i>Classroom</i>	-0.30***	0.10
<i>Distract</i>	0.14	0.10
<i>ExpAttendance</i>	0.32**	0.13
<i>ExpGrade</i>	0.14	0.09

Note: 419 observations in this model with a pseudo-R² value of 0.20.

Three asterisks denote significance at the 1% level, two asterisks at the 5% level, and one asterisk at the 10% level.

perceptions of whether or not the course is worthwhile in their minds regardless of course levels with the same being true for the perception of being an entertaining instructor. Being able to actively involve students in a course in the early stages also increases the probability of students viewing the course as worthwhile.

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. Approximately half of the students in this research completed an end of semester evaluation that is successfully matched by a code number to their initial evaluation. Of those roughly 420 students, two thirds did not change their overall rating of the instructor across the semester (Pruitt, 2008). The large number of students that changed their course rating at the end of the semester underscores the need to understand what factors impact first impressions in the classroom and how to make a better first impression.

As found in Fleming et al. (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.

A student's expected grade is rarely found to be significant and concurs with the SET literature that does not always conclude that grades are a significant factor in explaining SET scores. If grades do bias SET scores, this may occur over the course of the semester and involve other related factors. Another finding was the absence of gender bias in terms of students evaluating instructors. The SET literature is split on

Table 7. Parameter Estimates and Standard Errors for Variables Used in Ordered Probit Model to Explain Differences in Student's Initial Evaluations of an Instructor's Ability to Present Material in Upper Level Courses

Variable	Parameter Estimate	Standard Error
Intercept	-2.70	2.39
Threshold parameter 1	1.52***	0.21
Threshold parameter 2	3.96***	0.24
Student Characteristics		
<i>College</i>	0.89	0.76
<i>Class</i>	-0.14	0.17
<i>Purpose</i>	-0.17	0.15
<i>Required</i>	-0.02	0.30
<i>Type</i>	0.29	0.48
<i>PrevCourse</i>	0.12	0.20
<i>PrevInstr</i>	0.06	0.32
<i>Ratings</i>	0.16	0.29
<i>CourseValue</i>	-0.10	0.13
<i>Female Evaluating Male</i>	-0.11	0.21
<i>Male Evaluating Female</i>	-1.32**	0.62
<i>Female Evaluating Female</i>	-0.80*	0.43
Instructor Characteristics		
<i>Associate Professor</i>	0.61*	0.37
<i>Assistant Professor</i>	0.82**	0.33
Course Characteristics		
<i>Class size</i>	-0.01	0.01
<i>Time</i>	0.33	0.29
<i>New Course</i>	-0.58	0.49
<i>Day</i>	-0.13	0.11
<i>Middle</i>	0.71	1.07
<i>End</i>	1.70***	0.58
Student Views		
<i>TeachStyle</i>	0.12	0.13
<i>OneSection</i>	0.13	0.15
<i>FriendRec</i>	0.33**	0.13
<i>WebRec</i>	0.22	0.18
<i>ProfRec</i>	-0.03	0.12
<i>SubInterest</i>	0.08	0.11
<i>Goodgrade</i>	-0.10	0.10
<i>Syllabus</i>	-0.03	0.14
<i>ActiveInvolve</i>	0.31*	0.17
<i>Entertain</i>	0.64***	0.15
<i>Ask</i>	-0.19	0.14
<i>Answer</i>	0.20	0.14
<i>Fair</i>	0.45***	0.16
<i>CalledOn</i>	-0.03	0.13
<i>Focus</i>	-0.07	0.12
<i>Visualaids</i>	0.20	0.13
<i>Stories</i>	-0.05	0.14
<i>Classroom</i>	-0.17	0.14
<i>Distract</i>	-0.02	0.13
<i>ExpAttendance</i>	0.02	0.17
<i>ExpGrade</i>	0.25	0.18
Log-likelihood	161.20	

Note: 433 observations in this model with a pseudo-R² value of 0.45.
 Three asterisks denote significance at the 1% level, two asterisks at the 5% level, and one asterisk at the 10% level.

Determinants of Students

Table 8. Marginal Effects of Independent Variables on Presentation of Material in Upper and Lower Division Courses, Oklahoma State University, Fall 2007²

		Marginal Effects				
		Very Low	Low	Average	High	Very High
Presentation of Material (Upper Level Courses)						
	<i>FriendRec</i>	---	0.00	0.00	-0.11	0.11
	<i>Entertain</i>	---	0.00	0.00	-0.22	0.22
	<i>Fair</i>	---	0.00	0.00	-0.15	0.15
Presentation of Material (Lower Level Courses)						
	<i>Class</i>	0.00	0.00	0.03	0.04	-0.07
	<i>Syllabus</i>	0.00	0.00	-0.05	-0.07	0.12
	<i>Entertain</i>	0.00	0.00	-0.08	-0.11	0.19
	<i>Focus</i>	0.00	0.00	-0.03	-0.05	0.08
	<i>Classroom</i>	0.00	0.00	0.05	0.07	-0.12
	<i>ExpAttendance</i>	0.00	0.00	-0.05	-0.07	0.12

² The marginal effects represent the percentage change of the dependent variable rating given a one unit change in the rating of the independent variable.

Note: Only variables that were significant at least the 5% and are not dummy variables are included in the above table.

Table 9. Parameter Estimates and Standard Errors for Variables Used in Ordered Probit Model to Explain Differences in Student's Initial Evaluations of an Instructor's Effort Devoted to Teaching in Lower Level Courses

Variable	Parameter Estimate	Standard Error
Intercept	1.02	1.99
Threshold parameter 1	0.09	0.08
Threshold parameter 2	1.30***	0.10
Threshold parameter 3	2.93***	0.11
Student Characteristics		
<i>College</i>	-0.34	0.26
<i>Class</i>	-0.07	0.09
<i>Purpose</i>	0.12	0.11
<i>Required</i>	-0.42	0.30
<i>Type</i>	-0.06	0.1
<i>PrevCourse</i>	-0.33	0.20
<i>PrevInstr</i>	0.82	0.51
<i>Ratings</i>	0.13	0.21
<i>CourseValue</i>	0.12	0.08
<i>Female Evaluating Male</i>	0.18	0.17
<i>Male Evaluating Female</i>	0.21	0.92
<i>Female Evaluating Female</i>	-0.25	0.98
Instructor Characteristics		
<i>Full Professor</i>	-1.31	1.18
<i>Assistant Professor</i>	-1.49**	0.66
Course Characteristics		
<i>Class size</i>	0.01**	0.00
<i>Time</i>	2.00*	1.12
<i>Day</i>	-1.46**	0.67
Student Views		
<i>TeachStyle</i>	0.14	0.13
<i>OneSection</i>	-0.16	0.13
<i>FriendRec</i>	0.02	0.11
<i>WebRec</i>	-0.05	0.15
<i>ProfRec</i>	0.08	0.13
<i>SubInterest</i>	-0.10	0.09
<i>Goodgrade</i>	0.06	0.10
<i>Syllabus</i>	0.32**	0.13
<i>ActiveInvolve</i>	0.25	0.16
<i>Entertain</i>	0.42***	0.15
<i>Ask</i>	0.01	0.11
<i>Answer</i>	0.03	0.12
<i>Fair</i>	0.16	0.16
<i>CalledOn</i>	0.02	0.11
<i>Focus</i>	0.18*	0.11
<i>Visualaids</i>	0.08	0.15
<i>Stories</i>	0.03	0.14
<i>Classroom</i>	-0.20*	0.10
<i>Distract</i>	0.03	0.09
<i>ExpAttendance</i>	0.22*	0.13
<i>ExpGrade</i>	0.18	0.09

Note: 349 observations in this model with a pseudo-R² value of 0.18.

Three asterisks denote significance at the 1% level, two asterisks at the 5% level, and one asterisk at the 10% level.

Table 10. Parameter Estimates and Standard Errors for Variables Used in Ordered Probit Model to Explain Differences in Student's Initial Evaluations of an Instructor's Effort Devoted to Teaching in Upper Level Courses

Variable	Parameter Estimate	Standard Error
Intercept	-2.63	1.73
Threshold parameter 1	1.80***	0.18
Threshold parameter 2	3.85***	0.18
Student Characteristics		
<i>College</i>	-0.03	0.77
<i>Class</i>	0.14	0.15
<i>Purpose</i>	-0.02	0.14
<i>Required</i>	0.13	0.28
<i>Type</i>	0.10	0.25
<i>PrevCourse</i>	0.06	0.19
<i>PrevInstr</i>	0.05	0.31
<i>Ratings</i>	-0.07	0.26
<i>CourseValue</i>	-0.05	0.12
<i>Female Evaluating Male</i>	-0.01	0.19
<i>Male Evaluating Female</i>	-0.43	0.61
<i>Female Evaluating Female</i>	0.13	0.41
Instructor Characteristics		
<i>Associate Professor</i>	0.93***	0.35
<i>Assistant Professor</i>	0.34	0.30
Course Characteristics		
<i>Class size</i>	0.00	0.01
<i>Time</i>	-0.20	0.28
<i>New Course</i>	-0.62	0.46
<i>Day</i>	-0.08	0.11
<i>Middle</i>	1.51	0.94
<i>End</i>	0.86	0.55
Student Views		
<i>TeachStyle</i>	0.09	0.12
<i>OneSection</i>	-0.11	0.14
<i>FriendRec</i>	0.08	0.11
<i>WebRec</i>	0.06	0.15
<i>ProfRec</i>	0.00	0.11
<i>SubInterest</i>	0.02	0.10
<i>Goodgrade</i>	0.01	0.09
<i>Syllabus</i>	0.03	0.13
<i>ActiveInvolve</i>	0.35**	0.16
<i>Entertain</i>	0.54***	0.14
<i>Ask</i>	-0.10	0.13
<i>Answer</i>	0.21	0.13
<i>Fair</i>	0.25*	0.14
<i>CalledOn</i>	-0.08	0.11
<i>Focus</i>	-0.06	0.12
<i>Visualaids</i>	0.12	0.12
<i>Stories</i>	0.09	0.13
<i>Classroom</i>	0.07	0.12
<i>Distract</i>	-0.11	0.11
<i>ExpAttendance</i>	-0.27*	0.15
<i>ExpGrade</i>	-0.02	0.16

Note: 336 observations in this model with a pseudo-R² value of 0.36.

Three asterisks denote significance at the 1% level, two asterisks at the 5% level, and one asterisk at the 10% level.

Determinants of Students

Table 11. Marginal Effects of Independent Variables on Effort Devoted to Teaching in Upper and Lower Division Courses, Oklahoma State University, Fall 2007^z

		Marginal Effects				
		Very Low	Low	Average	High	Very High
Presentation of Material (Upper Level Courses)						
	<i>ActInvolve</i>	---	0.00	-0.01	-0.13	0.14
	<i>Entertain</i>	---	0.00	-0.01	-0.19	0.20
Presentation of Material (Lower Level Courses)						
	<i>Day</i>	0.01	0.00	0.17	0.39	-0.57
	<i>Syllabus</i>	0.00	0.00	-0.04	-0.08	0.12
	<i>Entertain</i>	0.00	0.00	-0.05	-0.11	0.16

^z The marginal effects represent the percentage change of the dependent variable rating given a one unit change in the rating of the independent variable.

Note: Only variables that were significant at least the 5% and are not dummy variables are included in the above table.

Table 12. Parameter Estimates and Standard Errors for Variables Used in Ordered Probit Model to Explain Differences in Student's Initial Evaluations of This Course is Worthwhile in Lower Level Courses

Variable	Parameter Estimate	Standard Error
Intercept	-5.98***	1.95
Threshold parameter 1	2.63***	0.12
Threshold parameter 2	4.54***	0.15
Student Characteristics		
<i>College</i>	-0.06	0.27
<i>Class</i>	0.03	0.09
<i>Purpose</i>	0.15	0.12
<i>Required</i>	0.24	0.29
<i>Type</i>	0.07	0.14
<i>PrevCourse</i>	0.03	0.21
<i>PrevInstr</i>	0.15	0.42
<i>Ratings</i>	0.00	0.21
<i>CourseValue</i>	0.07	0.08
<i>Female Evaluating Male</i>	0.16	0.17
<i>Male Evaluating Female</i>	1.54*	0.89
<i>Female Evaluating Female</i>	1.13	0.94
Instructor Characteristics		
<i>Full Professor</i>	0.69	1.16
<i>Assistant Professor</i>	-0.53	0.65
Course Characteristics		
<i>Class size</i>	0.00	0.00
<i>Time</i>	-0.02	1.05
<i>Day</i>	-0.14	0.64
Student Views		
<i>TeachStyle</i>	0.13	0.12
<i>OneSection</i>	-0.14	0.12
<i>FriendRec</i>	0.20*	0.10
<i>WebRec</i>	-0.06	0.14
<i>ProfRec</i>	-0.12	0.12
<i>SubInterest</i>	0.55***	0.09
<i>Goodgrade</i>	-0.05	0.10
<i>Syllabus</i>	0.23*	0.12
<i>ActiveInvolve</i>	0.29*	0.15
<i>Entertain</i>	0.25*	0.15
<i>Ask</i>	0.01	0.11
<i>Answer</i>	0.06	0.12
<i>Fair</i>	0.31**	0.15
<i>CalledOn</i>	0.10	0.11
<i>Focus</i>	0.10	0.11
<i>Visualaids</i>	0.08	0.14
<i>Stories</i>	0.13	0.15
<i>Classroom</i>	-0.05	0.10
<i>Distract</i>	-0.09	0.09
<i>ExpAttendance</i>	-0.13	0.13
<i>ExpGrade</i>	0.09	0.09

Note: 348 observations in this model with a pseudo-R² value of 0.29.

Three asterisks denote significance at the 1% level, two asterisks at the 5% level, and one asterisk at the 10% level.

Table 13. Parameter Estimates and Standard Errors for Variables Used in Ordered Probit Model to Explain Differences in Student's Initial Evaluations of This Course is Worthwhile in Upper Level Courses

Variable	Parameter Estimate	Standard Error
Intercept	-1.84	1.28
Threshold parameter 1	0.42	0.21
Threshold parameter 2	2.92	0.12
Threshold parameter 3	4.58	0.12
Student Characteristics		
<i>College</i>	-0.60	0.73
<i>Class</i>	-0.20*	0.12
<i>Purpose</i>	-0.09	0.12
<i>Required</i>	-0.20	0.21
<i>Type</i>	0.18	0.15
<i>PrevCourse</i>	0.07	0.16
<i>PrevInstr</i>	0.03	0.22
<i>Ratings</i>	-0.63***	0.22
<i>CourseValue</i>	0.03	0.10
<i>Female Evaluating Male</i>	-0.24	0.15
<i>Male Evaluating Female</i>	0.27	0.19
<i>Female Evaluating Female</i>	0.27	0.19
Instructor Characteristics		
<i>Associate Professor</i>	0.03	0.02
<i>Assistant Professor</i>	-0.06	0.19
Course Characteristics		
<i>Class size</i>	0.00	0.00
<i>Time</i>	0.02	0.17
<i>New Course</i>	-0.31	0.31
<i>Day</i>	-0.02	0.08
<i>Middle</i>	0.00	0.01
<i>End</i>	-0.01	0.01
Student Views		
<i>TeachStyle</i>	0.18**	0.08
<i>OneSection</i>	0.08	0.10
<i>FriendRec</i>	0.03	0.08
<i>WebRec</i>	0.12	0.11
<i>ProfRec</i>	-0.05	0.08
<i>SubInterest</i>	0.18**	0.08
<i>Goodgrade</i>	0.05	0.08
<i>Syllabus</i>	0.40***	0.09
<i>ActiveInvolve</i>	0.23*	0.12
<i>Entertain</i>	0.36***	0.11
<i>Ask</i>	0.17*	0.10
<i>Answer</i>	0.06	0.10
<i>Fair</i>	0.09	0.11
<i>CalledOn</i>	-0.33***	0.09
<i>Focus</i>	-0.12	0.09
<i>Visualaids</i>	0.04	0.10
<i>Stories</i>	0.25**	0.10
<i>Classroom</i>	-0.06	0.09
<i>Distract</i>	-0.07	0.09
<i>ExpAttendance</i>	0.09	0.11
<i>ExpGrade</i>	0.15	0.13

Note: 347 observations in this model with a pseudo-R² value of 0.30.
 Three asterisks denote significance at the 1% level, two asterisks at the 5% level, and one asterisk at the 10% level.

Table 14. Marginal Effects of Independent Variables on This Course is Worthwhile in Upper and Lower Division Courses, Oklahoma State University, Fall 2007^z

	Marginal Effects				
	Definitely No	No	Undecided/ Not Applicable	Yes	Definitely Yes
This Course is Worthwhile (Upper Level Courses)					
<i>Ratings</i>	0.00	0.00	0.15	0.04	-0.19
<i>TeachStyle</i>	0.00	0.00	-0.04	-0.01	0.05
<i>SubInterest</i>	0.00	0.00	-0.04	-0.01	0.05
<i>Syllabus</i>	0.00	0.00	-0.10	-0.02	0.12
<i>ActiveInvolve</i>	0.00	0.00	-0.06	-0.01	0.07
<i>Entertain</i>	0.00	0.00	-0.09	0.02	0.11
<i>CalledOn</i>	0.00	0.00	0.08	0.02	-0.10
<i>Stories</i>	0.00	0.00	-0.06	-0.02	0.08
This Course is Worthwhile (Lower Level Courses)					
<i>SubInterest</i>	---	0.00	-0.21	0.16	0.05
<i>Fair</i>	---	0.00	-0.12	0.09	0.03

^z The marginal effects represent the percentage change of the dependent variable rating given a one unit change in the rating of the independent variable.
 Note: Only variables that were significant at least the 5% and are not dummy variables are included in the above table.

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whether or not this is an actual problem with student evaluations. All models in this paper where these variables are included are relative to a male student evaluating a male instructor. It is possible that initial impressions are not driven by gender bias but may be developed over the course of the semester for various reasons.

Despite concerns regarding the prevalence of websites that allows students' ratings of professors to be widely viewed, website recommendations are not found to have a significant impact on perceptions of the course or instructor. Students may not view these websites as credible themselves or a lack of awareness may factor into this result. Departmental curriculum design may prevent these references from affecting the decision to enroll in a course. However, a potential selection bias may be present, i.e. students who use these websites choose not to enroll in these classes and are not part of the sample population.

Some literature suggests that SET measure quick, snap judgments that are subconscious and uncontrollable on the student's part (Merritt 2008). Our results indicate that in some situations additional information is used to alter impressions of instructor's ability to present the material as further explored in Pruitt (2008). However, this finding is limited to being significant in just a few models that were estimated. If this is the case with SET measuring snap judgments, 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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