

Faculty Perceptions of the “Student Evaluation of Instruction” Instrument as a Tool for Assessing Teaching Effectiveness



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Abstract

A previous study (Rahnema et al., 2003) reported on students' perceptions of the “Student Evaluation of Instruction” (SEI) instrument. Since students constituted only one side of the course instruction and evaluation equation, the objectives of this study were to determine faculty perceptions regarding their willingness as participants, faculty's perception on the qualifications of students as evaluators, and faculty's belief in the effectiveness of the SEI instrument. A survey was administered to 66 faculty members at The Ohio State University Agricultural Technical Institute. Thirty-nine (59.1%) of the faculty completed this survey, of which 29% were regular faculty, and 71% auxiliary faculty. On a scale of 1 (strongly disagree) to 5 (strongly agree), the faculty members indicated a willingness to be evaluated (4.0 ± 1.2) and were neutral in qualification of students (3.3 ± 1.2), validity of SEI for teaching (2.7 ± 1.1), and annual performance evaluations (2.8 ± 1.2). Faculty believed students used SEIs to get even with their instructors (3.9 ± 1.2); faculty perceived that other faculty influenced their students (3.8 ± 1.2); and that course content was compromised (3.5 ± 1.1). In conclusion, faculty appeared to be willing participants in the SEI process but were not sure if students were qualified to evaluate their instructors and felt course content was compromised. Faculty appeared indecisive regarding the effectiveness of the overall process.

Introduction

A variety of instruments and techniques have been used by University administrators to evaluate the effectiveness of professors as teachers in the classroom. There has been a large body of research and many debates over the effectiveness or ineffectiveness of these instruments (Feldman, 1997; Marsh and Roche, 1999; Watkins, 1994). Many individuals, including pedagogical researchers, consider student evaluations credible as supported by research data (Aleamoni, 1981; Braskamp and Ory, 1994; Cashin, 1995). Others argue that student evaluations of instruction are either not very credible or have minimum value for only comparison purposes. Some researchers argue that numerical values need to be

adjusted based on a variety of reasons such as course grade, grade point average, class size, the primary reasons for taking a course (required vs elective), the rigor of the course, professor's demands, as well as grade perception (Allen et al. 2001; McCulloch, 1998; Trout, 2000).

At The Ohio State University Agricultural Technical Institute (ATI), in the mid 1980s, instruction was evaluated using forms called “Student Evaluation of Teaching (SET).” The instrument contained a sample bank of approximately 250 questions from which ten were required to be administered to students. The professor then had the opportunity to select additional questions that might also be used. This allowed for sometimes-appropriate variation in the questions tailor-made by different

Student Evaluation of Instruction for

COURSE: BUS TEC T103
 CAMPUS AND QUARTER: Wooster/ATI Autumn 200
 CALL NUMBER: 70139-9

INSTRUCTIONS: Please evaluate the instructor named above and the part of the course taught by that instructor. The results of the SEIs are reported back to instructors and their departments as important tools for giving feedback. They are also taken seriously in determining promotions, teaching awards, pay raises, and tenure decisions. Please give thoughtful responses to the items on the form, as well as any additional items requested by the instructor. Use a No. 2 pencil to fill in the appropriate circles completely.

CLASS STANDING	CUMULATIVE GRADE POINT AVG.	I ENROLLED IN THIS CLASS BECAUSE...
<input type="radio"/> Rank 1 (Freshman)	<input type="radio"/> 3.70 - PLUS	<input type="radio"/> It was specifically required in my major/minor.
<input type="radio"/> Rank 2 (Sophomore)	<input type="radio"/> 3.30 - 3.69	<input type="radio"/> It was one of several choices to meet a requirement in my major.
<input type="radio"/> Rank 3 (Junior)	<input type="radio"/> 3.00 - 3.29	<input type="radio"/> It fulfills a GEC/BER requirement.
<input type="radio"/> Rank 4 (Senior)	<input type="radio"/> 2.70 - 2.99	<input type="radio"/> It was a free elective choice.
<input type="radio"/> Graduate	<input type="radio"/> 2.30 - 2.69	
<input type="radio"/> Graduate Professional	<input type="radio"/> 2.00 - 2.29	
<input type="radio"/> Other	<input type="radio"/> Below 2.00	

Evaluate items 1-9 using a scale where the range is from: Agree Strongly to Disagree Strongly. Fill in "Not Applicable" to indicate an item that does not apply to this instructional setting. Evaluate item 10 using a scale where the range is from: Excellent to Poor.

Not Applicable	Agree Strongly	Neutral	Disagree Strongly	Item
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	1. The subject matter of this course was well organized.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	2. This course was intellectually stimulating.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	3. The instructor was genuinely interested in teaching.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	4. The instructor encouraged students to think for themselves.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	5. The instructor was well prepared.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	6. The instructor was genuinely interested in helping students.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	7. I learned a great deal from this instructor.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	8. The instructor created an atmosphere conducive to learning.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	9. The instructor communicated the subject matter clearly.
	Excellent		Poor	10. Overall, I would rate this instructor as ...

REVISIONS: A grid of checkboxes for marking items.

Please Do Not Mark in This Box

Figure 1. Student Evaluation of Instruction form used at The Ohio State University.

¹Professor

²Associate Professor

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professors due to the nature and differences among courses/subject matter. In the early 1990s, the SET was evaluated and a new form was developed by the University called "Student Evaluation of Instruction (SEI)." This new evaluation tool (Figure 1) consisted of only ten questions that each professor must use. Responses are scaled from 1 (least favorable) to 5 (most favorable). It was concluded that the more standardized SEI form would allow for a more

comparable measurement model from professor to professor.

A previous report (Rahnema et al. 2003) studied students' perceptions of the SEI instrument. Since students constituted only one side of the course instruction and evaluation "equation," the overall purpose of this study was to assess faculty's satisfaction of the SEI instrument used to evaluate their teaching and its use in wage increases based on merit.

The main objectives of this study were: 1) Are faculty willing participants in the SEI process? 2) Do faculty perceive that students are qualified to evaluate the teaching effectiveness of their professors? 3) Do faculty believe that the SEIs are an effective tool for evaluating instruction? 4) Are standards and the integrity of the course compromised by the utilization of SEIs?

Materials and Methods

At ATI, SEI forms are normally mailed to faculty during the eighth or ninth week of the ten-week quarter. A third person, which may be another faculty member, staff, or student, administers the SEIs for students to complete in class when the instructor is absent from the classroom. Completed SEIs forms are collected by this individual, sealed in an envelope, and signed and returned to the appropriate office for further processing.

Approximately 860 students were enrolled at ATI during the time period this study was conducted. A survey (Figure 2) was developed and administered to 64 faculty (tenure track and auxiliary) at ATI during Spring Quarter of 2005. The survey consisted of two parts. The first part (seven questions) was intended to gather demographic information regarding the faculty who completed the survey. The second part consisted of 20 queries in which responses were scaled from 1 (strongly disagree with) to 5 (strongly agree with) and was designed to address the stated objectives of the study.

The Ohio State University requires that if research involves people or their data such as interviews, questionnaires, observations, or records containing that identifiable data, then the investigators must be familiar with federal guidelines and obtain authorization from the University Institutional Review Board prior to conducting the research (<http://www.orrp.ohio-state.edu/>). The authors successfully completed (Protocol # 2005E0099) a course in the "Protection

Faculty Survey of SEI Questionnaire		Protocol 2005E0099			
Dear Ohio State ATI Faculty:					
You are being asked to participate in a research project regarding Student Evaluation of Instruction (SEIs). You may be aware that we recently completed a similar project wherein we asked students to respond to their perception/participation with SEIs. It now seems reasonable to gather similar information from those in the teaching profession. The objective of the current search is to investigate your views regarding the significance/ effectiveness of SEIs as an instrument for assessing you, as a teacher. We would greatly appreciate it if you would take the time to complete and return this survey as soon as possible (by June 3, 2005) to either Philip Kroll or Shah Rahnema. Thank you in advance for your time and willingness to help. Thank you.					
Shah Rahnema, Philip Kroll, and Frank Jennings					
Please note:					
a. It is critical that you respond to these questions as candidly/honestly as possible.					
b. The information generated from your responses may be summarized and reported at professional meetings and or published.					
c. Your anonymity guaranteed.					
d. You may be either a regular or auxiliary faculty at OSU ATI (it does not matter how many classes you teach).					
1. My age at my last birthday was:	2. My field of education is:				
a. less than 30 years old.	a. Animal agriculture				
b. between 30 and 39 years old	b. Plant agriculture				
c. between 40 and 49 years old	c. Horticulture				
d. between 50 and 59 years old	d. Social Sciences and Humanities				
e. over 60 years old	e. Communications				
	f. Biological and chemical sciences				
	g. Other (Math, Engineering, etc)				
3. I have been at OSU ATI for:	4. I teach in the _____ Division				
a. less than 10 years	a. Agricultural & Engineering				
b. more than 10 but less than 20 years	b. Arts & Science & Business				
c. more than 20 but less than 30	Horticulture				
d. more than 30 years					
5. I teach _____ at ATI.	6. My SEIs are administered by:				
a. fulltime- regular	a. myself				
b. fulltime-retired regular	b. another faculty member				
c. fulltime- auxiliary	staff member				
d. part time- auxiliary	student				
7. My gender is _____.					
8. For the following questions, "5" means you strongly agree, "4" means you agree, (3) means you are undecided, "2" means you disagree, and "1" means you strongly disagree with the statement.					
a. I am pleased that my students are asked to evaluate my instruction.	1	2	3	4	5
b. I consider my students well qualified to complete the SEIs form given to them.	1	2	3	4	5
c. I consider my students not qualified to complete some of the questions on SEIs given to them.	1	2	3	4	5
d. SEIs are a good instrument for measuring teaching effectiveness.	1	2	3	4	5
e. SEIs are a useful instrument as part of my annual evaluation.	1	2	3	4	5
f. My students always complete the SEIs given to them.	1	2	3	4	5
g. It generally takes students less than two minutes to complete an SEI.	1	2	3	4	5
h. I believe some professors try to influence their students' response to SEIs.	1	2	3	4	5
i. I have tried to influence my students' responses to SEIs.	1	2	3	4	5
j. I have heard about classes where the teacher tried to influence student SEIs responses.	1	2	3	4	5
k. I believe at times there is pressure from other students to grade their professors lower than they would have liked to.	1	2	3	4	5
l. I believe at times, there is pressure from other students to grade their professors higher than they would have liked to.	1	2	3	4	5
m. I believe professors in my major are evaluated higher on their SEIs than professors in other fields at OSUATI.	1	2	3	4	5
n. I believe professors in my major are evaluated lower on their SEIs than professors in other fields at OSU ATI.	1	2	3	4	5
o. I believe the best students are those within my major field of study.	1	2	3	4	5
p. I believe students in my major field are academically below others.	1	2	3	4	5
q. I believe students with lower GPA tend to evaluate their instructors lower.	1	2	3	4	5
r. I believe that course difficulty has a significant effect on student SEIs.	1	2	3	4	5
s. I believe at times, SEIs are used by some students to get even with their instructors.	1	2	3	4	5
t. I believe at times, course standards/integrity is compromised by instructors in order to receive better SEIs.	1	2	3	4	5

Figure 2. Survey instrument used to gather data from faculty regarding the effectiveness of Student Evaluation of Instruction Forms.

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of Human Research Subjects.” Instructions for completing the survey were written at the top of the questionnaire (Figure 2). Emphasis was placed on the utmost importance of responding to these questions with total honesty. Completed surveys were collected and later tabulated for demographic information and descriptive statistical analysis. Data were analyzed using the General-Linear Model procedure of SYSTAT 10 (1998). Means were compared using the Fisher Least-Significant-Difference Test (SYSTAT10, 1998).

Results and Discussion

Thirty-nine out of 66 (59.1%) faculty completed the survey (Table 1). Of the 39 faculty completing the survey, 56.4% were in the field of agriculture, 2.6% in horticulture, 10.3% in humanities, and 30.8% in the sciences (Table 2). Twenty-nine faculty (74.4%) either agreed or strongly agreed that they were pleased to be asked to be evaluated by their students (Table 1) with no statistical differences ($P > .59$) among various demographics (Table 3). In a previous study, Rahnema et al. (2003) reported 70% of students surveyed were pleased to evaluate their instructors. When faculty were asked if they considered students qualified to evaluate their teaching effectiveness, 46.2% either agreed or strongly agreed that students were qualified (Table 1), while 28.2% were neutral and 25.6% either disagreed or strongly disagreed with that statement (Table 1). Again, no statistical differences ($P > .41$) were noted among the various demographic groups surveyed in this study (Table 3). This is in contrast to the students' perception (Rahnema et al., 2003) when 89% of students indicated they were qualified to evaluate teaching effectiveness of their

instructors. Our observations through casual conversations with various faculty members at ATI revealed that the majority of them were generally unhappy about being evaluated by their students. Also, those faculty considered their students unqualified to evaluate their effectiveness as teachers. These discrepancies may be attributed to the fact that faculty reputations appear to have been at stake, and they did not want to appear as unwilling participants troubled by having their classes evaluated by students. Further research is needed to clarify this issue.

The use of the SEI as an instrument for annual

Table 1. Faculty Perception of SEI Questionnaire by Frequency

Survey Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a. Pleased to be evaluated	2	4	4	11	18
b. Students are qualified to evaluate.	4	6	11	12	6
d. Good for measuring teaching effectiveness□	7	9	11	12	0
e. Good for annual evaluation□	6	10	7	13	1
h. Teachers influence students' responses to SEIs.	8	7	8	16	0
i. I have influenced students' responses to SEIs.	29	5	3	2	0
k. Pressure from other students to grade lower	4	8	15	6	4
m. Higher eval. in my area than others at ATI	9	8	14	4	1
q. Lower GPA evaluate instructors lower	4	8	9	7	10
r. Course difficulty affects SEIs.	3	8	2	9	17
s. SEIs used to get even with instructors	3	4	2	16	14
t. Integrity compromised to receive better SEIs	1	7	11	11	9

Lower case letters in the first column on the left, refer to the questions used in the Faculty Survey Instrument (Figure 2)

Table 2. Observed Frequencies for Type of Appointment and Field of Education for Years of Service Group

Years of Service	Appointment	Field of Education			
		Agriculture	Horticulture	Humanities	Science
< 10	Reg. Faculty	2	2	0	2
	Aux. Faculty	0	0	6	5
	TOTAL	2	2	6	7
10-20	Reg. Faculty	1	2	1	3
	Aux. Faculty	1	0	1	1
	TOTAL	2	2	2	4
20-30	Reg. Faculty	2	0	1	2
	Aux. Faculty	0	0	0	0
	TOTAL	2	0	1	2
> 30	Reg. Faculty	1	1	1	2
	Aux. Faculty	0	0	0	0
	TOTAL	1	1	1	2
GRAND TOTAL^a		7	5	10	15

^aOf the 37 total respondents, 62% were regular faculty and 38% adjuncts

Table 3. Least Squares Means for Select Demographic Parameters Regarding Effectiveness of SEIs as an Instrument for Evaluation of Instruction at P<.05 Significant Level

Demographics	Pleased to be evaluated	Students qualified to evaluate	SEI good instrument for teaching evaluation	SEI good instrument for annual evaluation	Professor influences students	I have heard other faculty influence students	Students pressured to ^a evaluate low	I have influenced students in their evaluation ^b	Students use SEIs to get even with instructors	Course content compromised	Believe lower GPA evaluates lower
Years at ATI											
< 10	3.94	3.39	2.72	2.69	3.83	3.59	2.59 ^c	1.44	3.61	3.33	3.06
10-20	4.00	2.80	2.90	3.20	3.90	3.30	3.80 ^d	1.50	4.10	3.70	3.20
20-30	4.40	3.40	2.80	2.80	3.20	3.00	2.60 ^c	2.20	4.00	3.60	3.80
30 >	4.00	3.40	2.40	2.60	4.00	4.20	2.80 ^c	1.00	4.00	3.40	3.60
P =	.91	.64	.88	.72	.70	.68	.04	.33	.76	.86	.70
Appointment											
Regular Faculty	3.91	3.09	2.61	2.78	3.87	3.70	3.09	1.74 ^e	3.78	3.70	3.44
Auxiliary Faculty	4.14	3.43	3.00	2.83	3.57	3.29	2.77	1.14 ^f	3.93	3.14	3.00
P =	.59	.42	.31	.91	.47	.47	.43	.09	.74	.15	.37
Field of Education											
Agriculture	4.25	3.13	2.62	3.25	3.75	3.38	2.62	1.75	4.00	3.88	3.50
Horticulture	3.60	3.20	2.60	2.40	3.00	2.60	2.60	2.00	3.60	3.60	3.20
Humanities	4.10	3.50	3.00	3.33	3.80	3.70	2.78	1.20	3.70	3.10	3.11
Sciences	4.00	3.13	2.67	2.43	4.07	3.73	3.33	1.40	3.93	3.47	3.27
P =	.83	.89	.86	.18	.40	.58	.39	.47	.92	.54	.95

^a Means within a column within "Years at ATI" with different superscripts were different (P<.05).
^b Means within a column within "appointment" with different superscripts were different (P<.10).

performance evaluation appears to be somewhat questionable by the faculty. Less than half the faculty surveyed (35.9%) either agreed or strongly agreed with that statement (Table 1). Sixteen faculty (41.0%) either disagreed or strongly disagreed with the statement, and the remaining faculty (18.9%) were neutral regarding the use of SEIs as a tool for annual evaluation and merit increases. These percentages appear to be more in line with informal conversations with various faculty at ATI. Also, given the potential of direct impact of this question on faculty's financial status, it is assumed that they were more willing to speak up.

Regarding the question of whether instructors try to influence the student evaluation process, 41.0% of the faculty surveyed agreed (Table 1). Roughly, an equal number of faculty (38.5%) either disagreed or strongly disagreed with the above statement and 20.5% were neutral. When faculty were asked if they have influenced their own students' responses to SEIs, 87.2% either disagreed or strongly disagreed (12.82% and 74.36%, respectively). Of the remainder, 5% agreed to having influenced their students' responses to SEI with no one acknowledging that they strongly influenced their students. The response to these questions is an interesting one, because faculty appear to say that they know other faculty who influence their student responses to SEIs in order to get better evaluations but they themselves do not. When students were asked if their instructors have tried to influence their responses to SEIs, 87.2%

of them disagreed or strongly disagreed with that statement (Rahnema et al., 2003). Therefore, most students and faculty agree that faculty do not try to influence students' response to SEIs. However, most students did not report to have sensed the hints that made faculty believe that other faculty try to influence their student outcome of SEIs.

When faculty were asked about the misuse of the SEI instrument by their students as a means of getting even with their instructors, 76.9% of them responded by either agreeing or strongly agreeing with that statement, and 17.9% either disagreed or strongly disagreed (Table 1). Responses to this question further support the faculty's feeling and lack of trust towards the usefulness of this instrument as a tool for fair evaluation of their instruction. Also, no statistical differences (P>.74) were noted among various demographic groups studied (Table 3). Rahnema et al. (2003) reported that 48% of students agreed or strongly agree with this statement. Combining the faculty and student responses to this question could raise some concerns over the usefulness of this instrument for its current designated purposes. Regarding pressure from other students to grade their instructor lower, 40.54% of the faculty surveyed were neutral with the rest nearly equally divided on either agreeing or disagreeing with the statement. The response to this statement is somewhat puzzling. We had expected similar response to both these questions, since we had often heard that there was a great amount of peer pressure among

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students to evaluate their instructors poorly.

Course difficulty was believed by 66.67% of the faculty to negatively effect SEI evaluations. When faculty were asked if they believed, at times, course standards/integrity are compromised by instructors in order to receive better SEIs, 51.3% of the faculty surveyed either agreed or strongly agreed with that statement, and another 28.2% were neutral. Again, this is in contrast to the student's perception (19.7%) that course standards/integrity are compromised by instructors in order to receive better SEIs (Rahnema et al., 2003). The results from different demographic groups surveyed in this study showed that the faculty with 10 to 20 years of service believed ($P = .04$) that students are pressured by their peers to lower the evaluations of their instructors (Table 3). Also, adjunct faculty more strongly disagreed ($P = .09$) with the statement that they influenced their students' SEI evaluations than the regular tenure-track faculty. One could assume that regular faculty felt less vulnerable to implicate themselves as being influenced by their students than the adjunct faculty without the protection of tenure would.

Summary

Based on the survey results, faculty indicated they were pleased to be evaluated by their students, believed course difficulty affected SEI scores, believed SEIs were used to "get even" with instructors and believed course integrity was compromised. Although 41.0% of the faculty agreed that instructors try to influence the student evaluation process and course integrity is compromised in order to receive better SEI scores, 87.2% of them disagreed that they themselves influenced their student responses to the SEIs. On the other hand, faculty responding to the survey appeared indecisive as to whether the SEI is a good tool for measuring teaching effectiveness, and were even less favorable with the use of this tool for annual evaluation. It would be interesting to see if the timing of the administration of SEIs would have an affect on the outcome as well as determining to what degree do all parties agree in their understanding of the questions students are asked to respond to.

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