IDEA Technical Report No. 16

An Analysis of IDEA Student Ratings of Instruction Using Paper versus Online Survey Methods 2002-2008 Data

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Technical Report on the Analysis of IDEA Student Ratings for Paper versus Online Survey Methods 2002-2008 Data

The purpose of this report is to summarize results from statistical analyses comparing differences on student and faculty responses between paper and online administration of the IDEA Student Ratings of Instruction System (IDEA) from 2002 to 2008. The current analyses were primarily undertaken to assess comparability across paper and online administrations. Specifically, does delivery method have an impact on student ratings? Differences between paper and online administration were examined in terms of:

1. Student response rates
2. Correlations between response rate and student ratings
3. Instructor ratings of the importance of the 12 IDEA learning objectives
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METHOD

Sample

The sample of classes was taken from those using IDEA from 2002 to 2008. Prior to conducting the analyses, classes were removed until all institutions contributed no more than approximately 5% of all classes. A total of 651,587 classes used paper forms, and 53,000 completed ratings online. Table 1 presents the frequency and percentage of classes completing ratings in both formats across the seven-year period. The percentage of classes using IDEA Online noticeably increased across the years.

Table 1
Frequency and Percentage of Classes Disaggregated by Year and Type of Survey Method

Year	Delivery Method		% Online	Total
	Paper	Online		
2002	65,169	578	0.9	65,747
2003	72,833	919	1.2	73,752
2004	77,888	1,407	1.8	79,295
2005	93,866	3,325	3.4	97,191
2006	98,526	6,727	6.4	105,253
2007	114,059	12,457	9.8	126,516
2008	129,246	27,587	17.6	156,833
Total	651,587	53,000	7.5	704,587

Table 2 presents the frequency and percentage of surveys delivered via paper and online by the highest degree awarded. The table also presents the same information for the entire 2002-2008 IDEA database. The percentages of different types of institutions were very similar across survey methods: 36.7% of paper and 31.8% of online administrations were associate and baccalaureate; 63% and 68%, respectively, were master's level and beyond. These slight differences do not appear to be meaningful. Additionally, as reported in Technical Report 12 (Hoyt & Lee, 2002), IDEA ratings do not differ by the highest degree awarded. Moreover, the current samples of classes are otherwise very representative of the overall IDEA database.

Table 2
Frequency and Percentage of Highest Degree Awarded by Type of Survey Method

	Paper and Pencil		IDEA Online		2002-2008 IDEA Database	
Highest Degree Awarded	Frequency	Percent	Frequency	Percent	Frequency	Percent
Associate's	142,973	21.95	7,989	15.10	150,962	21.43
Baccalaureate	95,874	14.72	8,869	16.76	104,743	14.87
First professional degree	1,945	0.30	14	0.03	1,959	0.28
Master's	175,067	26.87	16,982	32.09	192,049	27.27
Beyond Master's, less than Doctorate	38,127	5.85	5,175	9.77	43,302	6.15
Doctorate	197,498	30.31	13,891	26.25	211,389	30.0
Total	651,484	100.0	52,920	100.0	704,404	100.0
Not applicable	103	0.002	80	.02	183	0.003

Before making comparisons in the student ratings, we examined whether similar student course levels were represented in the IDEA online and paper-and-pencil groups. Table 3 presents the frequencies and percentages of principle types of students enrolled in both delivery formats, as reported on the Faculty Information Form. The percentage of students enrolled in the different types of courses was very similar across the survey methods with one notable exception. A somewhat higher percentage of graduate and professional students were represented in the online sample (18.4%) compared to the paper sample (10.3%). Table 3 also shows that student response rates to IDEA were highest in graduate/professional and upper division/specialized classes and lowest in lower division classes, regardless of delivery format.

Table 3
Frequency and Percentage of Principal Type of Student Enrolled by Type of Survey Method

Paper and Pencil				
			Response Rate	
Student Type	**Frequency**	**Percent**	***M***	***SD***
Lower Division, General Education	151,777	27.7	.74	.17
Lower Division, Specialized	109,046	19.9	.78	.17
Upper Division, General Education	35,113	6.4	.79	.15
Upper Division, Specialized	133,718	24.4	.82	.16
Graduate/Professional	56,657	10.3	.87	.14
Combination	62,114	11.3	.78	.17
Total	548,425	100.0	.79	.17
Missing	103,162	15.8		

IDEA Online				
			Response Rate	
Student Type	**Frequency**	**Percent**	***M***	***SD***
Lower Division, General Education	9,928	24.3	.51	.24
Lower Division, Specialized	7,241	17.7	.54	.24
Upper Division, General Education	2,536	6.2	.58	.22
Upper Division, Specialized	8,574	21.0	.63	.23
Graduate/Professional	7,551	18.4	.64	.23
Combination	5,092	12.4	.53	.24
Total	40,922	100.0	.57	.24
Missing	12,078	22.8		

Note. *M* = mean; *SD* = standard deviation.

The percent of experienced and novice (first-time) users of IDEA student ratings in both delivery formats (see Table 4) was also computed. In both paper (82.3%) and online conditions (78.1%), the vast majority of instructors were experienced users of IDEA. Among IDEA Online users, the mean student response rate was somewhat higher for experienced users.

Table 4
Descriptive Statistics for Response Rate by User Status and Type of Survey Method

Paper and Pencil					IDEA Online				
User Status	***N***	***%***	**Response Rate**		**User Status**	***N***	***%***	**Response Rate**	
			M	***SD***				***M***	***SD***
Experienced	536,514	82.3	.78	.17	Experienced	41,367	78.1	.57	.23
Novice	115,073	17.7	.79	.17	Novice	11,633	21.9	.48	.26
Total	651,587	100.0	.78	.17	Total	53,000	100.0	.55	.24

Note. *M* = mean; *SD* = standard deviation.

Instrumentation

Faculty Information Form (FIF). The FIF solicits information about each course from the instructor. Faculty may complete the FIF at any time during the semester. The online version is delivered to faculty via e-mail. Instructors rate each of 12 learning objectives as either 3 (*Essentia*l), 2 (*Important*), or 1 (*of Minor or No Importance*). The instructors report the day(s) and time the class meets, the course number, the number of students enrolled, a department discipline code, and—if appropriate—a local code defined by their institution. Instructors respond to contextual questions about the primary and secondary instructional approaches to the course (e.g., lecture, discussion/recitation, seminar); course requirements (e.g., writing, oral communication, group work); whether any of several factors may have had a positive, negative, or neutral impact on students' learning (e.g., physical facilities, student enthusiasm to take the course, technical/instructional support); and the primary type of student enrolled (e.g., first-year/sophomore meeting general education requirements, upperclassmen non-majors, graduate or professional students). They also indicate whether the course was team taught and whether it was taught through distance learning.

Student Ratings Forms. The IDEA Center recommends students complete ratings after the first half of the course but prior to the last day of class before final examinations. On the *IDEA Diagnostic Form,* which contains 47 items, students are asked to indicate how frequently their instructor used each of 20 teaching methods, using a scale of 1 (*Hardly Ever*), 2 (*Occasionally*), 3 (*Sometimes*), 4 (*Frequently*), and 5 (*Almost Always*). Students also rate their progress on the same 12 learning objectives their instructor rates for importance. Students respond with 1 (*No apparent progress*), 2 (*Slight progress*), 3 (*Moderate progress*), 4 (*Substantial progress*), and 5 (*Exceptional progress*). Additional questions concern course characteristics, the student's characteristics (e.g., work habits, motivation), and the student's overall ratings of the course and instructor. The *IDEA Short Form*, which is comprised of 18 items, only includes ratings of the 12 learning objectives and ratings of 6 additional items related to student characteristics and global ratings of the course and instructor.

Four options for online administration of IDEA student ratings are available: (a) e-mail delivery with a unique URL for each student, (b) a unique course URL posted on the course website, (c) a link provided in Blackboard course management system, or (d) a combination of all three. As with the paper delivery, students completing the ratings online are restricted to one submission.

RESULTS

Students Response Rates

As indicated in Table 5, the proportion of students responding to the paper version of IDEA was, on average, higher than the online version (*M*s = .78 vs. .55, respectively). The magnitude of this difference was about 1.3 standard deviations. With the exception of online administration in 2004, the response rates for paper and online formats remained fairly steady across the years (see Table 6). As indicated in Table 7, response rates were also consistent across type of form (*Diagnostic* vs. *Short Form*). However, until 2008, online users were somewhat more likely to respond to the *Diagnostic* (.56) than the *Short* (.53) *Form* (see Table 8).

Table 5
Means and Standard Deviations for Student Response Rates by Type of Survey Method (All Classes)

Delivery Method	*M*	*SD*	*N*
Paper	.78	.17	651,587
Online	.55	.24	53,000
Total	.77	.19	704,587

Table 6
Means and Standard Deviations for Student Response Rates by Year and Type of Survey Method (All Classes)

	Overall			Paper			Online		
Year	***M***	***SD***	***N***	***M***	***SD***	***N***	***M***	***SD***	***N***
2002	0.78	0.17	65,747	0.79	0.17	65,169	0.55	0.20	578
2003	0.78	0.17	73,752	0.78	0.17	72,833	0.53	0.18	919
2004	0.78	0.17	79,295	0.79	0.17	77,888	0.48	0.22	1,407
2005	0.77	0.18	97,191	0.78	0.17	93,866	0.57	0.23	3,325
2006	0.77	0.18	105,253	0.78	0.17	98,526	0.59	0.23	6,727
2007	0.76	0.19	126,516	0.78	0.17	114,059	0.57	0.23	12,457
2008	0.74	0.21	156,833	0.78	0.17	129,246	0.54	0.24	27,587
Total	.77	0.19	704,587	0.78	0.17	651,587	0.55	0.24	53,000

Table 7
Means and Standard Deviations for Student Response Rates by Type of Survey Method and Form Type

	Overall			Paper			Online		
Form Type	***M***	***SD***	***N***	***M***	***SD***	***N***	***M***	***SD***	***N***
Short	.76	.19	239,223	0.78	0.17	219,050	0.53	0.23	20,173
Diagnostic	.77	.18	465,364	0.78	0.17	432,537	0.56	0.24	32,827
Total	.77	.19	704,587	0.78	0.17	651,587	0.55	0.24	53,000

Table 8

Means and Standard Deviations for Response Rates Disaggregated by Type of Survey Method, Year, and Form Type

Year	Paper Forms								
	Form Type								
	Short	Diagnostic	Total	Short	Diagnostic	Total	Short	Diagnostic	Total
	M			*SD*			*N*		
2002	0.78	0.79	0.79	0.17	0.17	0.17	25,521	39,648	65,169
2003	0.78	0.79	0.78	0.17	0.17	0.17	29,709	43,124	72,833
2004	0.79	0.79	0.79	0.16	0.17	0.17	31,306	46,582	77,888
2005	0.78	0.78	0.78	0.17	0.17	0.17	33,147	60,719	93,866
2006	0.79	0.78	0.78	0.17	0.17	0.17	34,469	64,057	98,526
2007	0.78	0.78	0.78	0.17	0.17	0.17	32,509	81,550	114,059
2008	0.78	0.79	0.78	0.17	0.17	0.17	32,389	96,857	129,246
Total	0.78	0.78	0.78	0.17	0.17	0.17	219,050	432,537	651,587

Year	Online Forms								
	Form Type								
	Short	Diagnostic	Total	Short	Diagnostic	Total	Short	Diagnostic	Total
	M			*SD*			*N*		
2002	0.52	0.57	0.55	0.20	0.20	0.20	230	348	578
2003	0.51	0.54	0.53	0.17	0.19	0.18	346	573	919
2004	0.46	0.49	0.48	0.20	0.23	0.22	648	759	1,407
2005	0.50	0.61	0.57	0.23	0.23	0.23	1,110	2,215	3,325
2006	0.55	0.61	0.59	0.24	0.23	0.23	1,440	5,287	6,727
2007	0.53	0.58	0.57	0.23	0.23	0.23	3,859	8,598	12,457
2008	0.54	0.54	0.54	0.23	0.26	0.24	12,540	15,047	27,587
Total	0.53	0.56	0.55	0.23	0.24	0.24	20,173	32,827	53,000

Also of interest was whether student response rates varied by class enrollment. Class sizes were categorized into subgroups separately by type of survey delivery method (see Table 9). For both response formats, the highest student response rates were found in classes enrolling fewer than 10 students. For the paper version, response rates declined as enrollments increased. Among online users, response rates were lower (54%) but the same for all class groupings of 10 or more students.

Table 9
Means and Standard Deviations for Response Rates Disaggregated By Type of Survey Method and Number of Students Enrolled

	Paper			Online		
Students Enrolled	***M***	***SD***	***N***	***M***	***SD***	***N***
< 10	0.86	0.16	89,505	0.61	0.25	9,144
10-14	0.82	0.16	114,040	0.54	0.23	12,308
15-24	0.78	0.16	252,752	0.54	0.23	20,116
25-39	0.75	0.16	147,711	0.54	0.24	8,134
> 39	0.68	0.18	47,579	0.54	0.24	3,298
Total	0.78	0.17	651,587	0.55	0.24	53,000

Prior to performing the remaining analyses several exclusion criteria, in addition to the 5% institutional criterion, were applied to the data. Classes using the *Short Form*, classes from first-time users of IDEA, and classes with fewer than 10 responses were removed. After these exclusions, 254,151 classes from the paper group and 8,503 classes from the online group remained.

Because the samples for this research are so large and measures of statistical significance are sensitive to large sample size, comparisons between paper and online survey administration were primarily focused on "practical significance" (i.e., are differences meaningful enough to change the interpretation of results) and an examination of results to determine if consistently different patterns emerged.

Correlations between Response Rate and Student Ratings

Because student response rates were slightly higher for the paper format, we computed correlations between response rates and student ratings separately for both types of survey deliveries. As indicated in Table 10, the correlations between response rate and student ratings were, in general, modestly positive and similar in paper and online versions, with a mean correlation for those using the paper survey of $r = .11$ and the online survey $r = .08$ This suggests that response rate did not have a strong relationship with student ratings in either method. Nonetheless, in examining student progress ratings (Obj 1 to Obj 12), it appears effective teachers may have influenced student response rate slightly in a positive manner, which is consistent with previous findings (Hoyt, 2000).

Table 10
Correlations between Student Ratings and Response Rate by Type of Survey Method

Student Item	Paper Survey	Online Survey
TM 1	0.15	0.15
TM 2	0.13	0.11
TM 3	0.11	0.03
TM 4	0.13	0.12
TM 5	0.20	0.18
TM 6	0.13	0.12
TM 7	0.15	0.17
TM 8	0.12	0.12
TM 9	0.10	0.10
TM 10	0.06	0.06
TM 11	0.13	0.13
TM 12	0.05	-0.03
TM 13	0.12	0.11
TM 14	0.22	0.19
TM 15	0.15	0.14
TM 16	0.15	0.15
TM 17	0.05	0.04
TM 18	0.18	0.20
TM 19	0.15	0.12
TM 20	0.13	0.08
Obj 1	0.09	0.04
Obj 2	0.08	0.04
Obj 3	0.13	0.09
Obj 4	0.14	0.09
Obj 5	0.16	0.19
Obj 6	0.10	0.10
Obj 7	0.04	0.05
Obj 8	0.12	0.10
Obj 9	0.07	0.04
Obj 10	0.08	0.07
Obj 11	0.09	0.08
Obj 12	0.09	0.09
CR 33	0.02	-0.06
CR 34	0.09	0.04
CR 35	0.01	-0.01
Self 36	0.13	0.09
Self 37	0.09	0.06
Self 38	0.17	0.12
Self 39	0.06	0.10
Self 43	0.12	0.00
GL 40	0.14	0.11
GL 41	0.09	0.07
GL 42	0.10	0.06
PRO	0.13	0.09
PROadj	0.05	0.02

Note: Ns for paper and Online Survey methods ranged from 253,450 to 254,151 and 8,497 to 8,503, respectively. Short Form classes, first-time institutions' classes, and classes with < 10 responses removed.

Instructor Ratings of the Importance of the 12 IDEA Learning Objectives

Table 11 presents descriptive statistics for instructor ratings of importance on each of the 12 IDEA learning objectives by survey delivery method and for the overall IDEA database. With one exception, instructors rated objectives similarly, regardless of survey delivery method. Objective 9 "Learning how to find and use resources for answering questions or solving problems" was rated as either "essential" or "important" by more instructors administering IDEA online (48.4%) than those using the paper format (39.0%).

Table 11

Frequencies and Descriptive Statistics for Instructor (FIF) Ratings of Learning Objectives

	Paper Survey						Online Survey						IDEA Database 2002-2008					
Learning Outcome	**% I**	**%E**	**Total**	***M***	***SD***	**Valid *N***	**% I**	**%E**	**Total**	***M***	***SD***	**Valid *N***	**% I**	**%E**	**Total**	***M***	***SD***	**Valid *N***
1. Factual knowledge	30.1	49.3	79.4	2.29	0.79	236,438	33.5	47.4	80.9	2.28	0.76	7,699	30.2	49.2	79.4	2.29	0.79	244,137
2. Principles and theories	33.7	41.7	75.4	2.17	0.80	234,927	36	40.9	76.9	2.18	0.78	7,683	33.8	41.7	75.5	2.17	0.80	242,610
3. Applications	39.3	37.1	76.4	2.14	0.77	235,405	40.2	41	81.2	2.22	0.74	7,776	39.4	37.3	76.7	2.14	0.77	243,181
4. Professional skills, viewpoints	29.7	25.3	55.0	1.80	0.82	227,293	31.5	26.8	58.3	1.85	0.81	7,316	29.7	25.4	55.1	1.81	0.82	234,609
5. Team skills	22.4	8.5	30.9	1.39	0.64	223,675	21.1	7.3	28.4	1.36	0.61	7,122	22.4	8.5	30.9	1.39	0.64	230,797
6. Creative capacities	12.9	9.4	22.3	1.32	0.64	221,538	16.2	6.2	22.4	1.28	0.57	7,177	13.0	9.3	22.3	1.32	0.64	228,715
7. Broad liberal education	15.6	9.9	25.5	1.35	0.65	222,051	13.2	11.2	24.4	1.36	0.67	7,216	15.5	10.0	25.5	1.35	0.65	229,267
8. Communication skills	25.7	18.9	44.6	1.63	0.78	226,689	28.9	16.3	45.2	1.62	0.75	7,237	25.8	18.8	44.6	1.63	0.78	233,926
9. Find, use resources	28.5	10.5	**39.0**	1.50	0.68	224,497	33	15.4	**48.4**	1.64	0.73	7,248	28.7	10.6	39.3	1.50	0.68	231,745
10. Values development	16.3	6.8	23.1	1.30	0.59	220,081	19.5	8.3	27.8	1.36	0.63	7,208	16.4	6.9	23.3	1.30	0.59	227,289
11. Critical analysis	27.2	20.7	47.9	1.69	0.79	227,154	31.6	21.4	53.0	1.74	0.79	7,319	27.3	20.7	48.0	1.69	0.79	234,473
12. Interest in learning	28.9	10.5	39.4	1.50	0.68	221,679	28.9	12.4	41.3	1.54	0.70	7,089	28.9	10.5	39.4	1.50	0.68	228,768

Note: % I = Percent Important; % E = Percent Essential; Total = Percent Important + Percent Essential.
M number of objectives selected as important or essential for paper and online methods = 5.04 (*SD* = 2.76) and = 5.14 (*SD* = 2.85), respectively. For the overall 2002-2008 IDEA Database, *M* = 5.27 (*SD* = 2.89).
Instructors rated importance of learning objectives on a 1 = *Minor or No Importance* to 2 = *Important* to 3 = *Essential* scale.
Valid *N* = Number of responses from all classes excluding missing responses.
Short Form classes, first-time institutions' classes, and classes with < 10 responses removed.

The Inter-Correlations between the Instructor Ratings of the 12 Learning Objectives

Table 12 presents inter-correlations among instructor ratings of the importance of the 12 learning objectives, computed separately for paper and online delivery formats. In general, correlations were similar with no consistent differences between paper and online survey methods.

Table 12

Inter-Correlations of IDEA Faculty Information Form Faculty Ratings (FR) by Type of Survey Method

Paper											
Item	**FR1**	**FR2**	**FR3**	**FR4**	**FR5**	**FR6**	**FR7**	**FR8**	**FR9**	**FR10**	**FR11**
FR1	1										
FR2	0.41	1									
FR3	0.10	0.25	1								
FR4	0.08	0.10	0.30	1							
FR5	-0.02	0.04	0.23	0.27	1						
FR6	-0.12	-0.04	0.09	0.23	0.24	1					
FR7	-0.02	-0.02	-0.04	-0.01	0.13	0.35	1				
FR8	-0.17	-0.10	0.07	0.06	0.29	0.31	0.26	1			
FR9	0.06	0.10	0.31	0.25	0.32	0.23	0.17	0.39	1		
FR10	0.00	0.09	0.20	0.13	0.29	0.19	0.24	0.28	0.33	1	
FR11	-0.09	0.07	0.19	0.02	0.18	0.18	0.26	0.44	0.40	0.38	1
FR12	0.11	0.19	0.30	0.21	0.32	0.26	0.30	0.34	0.52	0.47	0.48

Online											
Item	**FR1**	**FR2**	**FR3**	**FR4**	**FR5**	**FR6**	**FR7**	**FR8**	**FR9**	**FR10**	**FR11**
FR1	1										
FR2	0.36	1									
FR3	0.04	0.23	1								
FR4	0.03	0.08	0.30	1							
FR5	-0.09	0.02	0.17	0.23	1						
FR6	-0.06	0.06	0.13	0.18	0.31	1					
FR7	0.04	0.06	0.00	-0.02	0.11	0.37	1				
FR8	-0.07	0.01	0.12	0.10	0.31	0.41	0.30	1			
FR9	0.07	0.12	0.30	0.30	0.27	0.29	0.18	0.40	1		
FR10	-0.01	0.10	0.16	0.15	0.26	0.28	0.28	0.34	0.32	1	
FR11	-0.02	0.15	0.28	0.10	0.21	0.26	0.26	0.44	0.41	0.40	1
FR12	0.10	0.21	0.28	0.22	0.30	0.32	0.32	0.40	0.53	0.44	0.54

Note: *Short Form* classes, first-time institutions' classes, and classes with < 10 responses removed. *N*s for paper and online surveys = 217,549 to 236,438 and 6,987 and 7,699, respectively. See Table 8 for item descriptions.

Paper-and-pencil mean r =.26; online mean r = .28.

Reported Student Progress on the 12 Learning Objectives

Table 13 presents student ratings of individual items on the IDEA *Diagnostic Form* by survey method. For each item, the magnitude of the difference between paper and online methods is noted, as well as the approximate value of *d* – the standardized mean difference (Cohen, 1988). A measure of effect size, *d* = [(Traditional *Mean* – Online *Mean*) / pooled standard deviation][1]. Cohen (1988) considered effect sizes approximating .20 (1/5 standard deviation) as small, .50 as medium, and .80 as large. The effect sizes in Table 13 indicated that student self-reported progress on the 12 objectives ("Obj 1" to "Obj 12") was very similar across the two types of formats. Therefore, students in the current sample reported similar progress regardless of survey delivery method.

One of the important hallmarks of the IDEA system is that students consistently report making greater progress on objectives their instructor rated as important or essential (Hoyt, 1973; Hoyt & Lee, 2002a). Table 14 shows that this was the case, regardless of survey method. Across both paper and online formats, students consistently reported greater progress on important and essential objectives. This provides evidence of the criterion-related validity of IDEA student ratings in both types of survey formats (see also Table 15).

The Frequency of Instructor use of 20 Teaching Methods

Students indicated similar frequency of their instructors' use of each of 20 teaching methods (TM 1 to TM 20) across survey delivery formats (see Table 13). Survey delivery format did not have an impact on student ratings of frequency of the teaching methods employed.

[1] $s = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$

Table 13

Student Ratings of Individual Items on the IDEA Diagnostic Form by Type of Survey Method

Item	2002-2008 (IDEA Database)		2002-2008 (Paper)			2002-2008 (Online)			Paper - Online	Approx *d*
	M	***SD***	***M***	***SD***	**Δ**	***M***	***SD***	**Δ**		
TM 1	4.41	0.46	4.42	0.46	-0.01	4.25	0.54	0.16	0.17	0.36
TM 2	4.20	0.50	4.21	0.50	-0.01	4.09	0.54	0.11	0.12	0.24
TM 3	4.29	0.46	4.29	0.46	0.00	4.28	0.48	0.01	0.01	0.02
TM 4	4.40	0.44	4.40	0.44	0.00	4.27	0.50	0.13	0.13	0.29
TM 5	3.68	0.94	3.68	0.95	0.00	3.71	0.88	-0.03	-0.03	-0.03
TM 6	4.30	0.49	4.30	0.48	0.00	4.19	0.53	0.11	0.11	0.23
TM 7	3.96	0.55	3.96	0.55	0.00	3.90	0.59	0.06	0.06	0.11
TM 8	4.02	0.55	4.02	0.55	0.00	3.99	0.55	0.03	0.03	0.05
TM 9	3.94	0.63	3.94	0.63	0.00	4.04	0.59	-0.1	-0.1	-0.16
TM 10	4.22	0.58	4.22	0.58	0.00	4.10	0.61	0.12	0.12	0.21
TM 11	4.31	0.55	4.31	0.55	0.00	4.24	0.56	0.07	0.07	0.13
TM 12	4.35	0.46	4.35	0.46	0.00	4.31	0.46	0.04	0.04	0.09
TM 13	4.15	0.55	4.16	0.55	-0.01	4.09	0.58	0.06	0.07	0.13
TM 14	3.89	0.77	3.89	0.77	0.00	3.96	0.70	-0.07	-0.07	-0.09
TM 15	3.92	0.60	3.92	0.60	0.00	3.93	0.58	-0.01	-0.01	-0.02
TM 16	3.85	0.74	3.84	0.74	0.01	3.90	0.75	-0.05	-0.06	-0.08
TM 17	4.22	0.56	4.22	0.56	0.00	4.11	0.64	0.11	0.11	0.19
TM 18	3.93	0.60	3.93	0.60	0.00	3.94	0.63	-0.01	-0.01	-0.02
TM 19	4.04	0.61	4.04	0.61	0.00	4.08	0.58	-0.04	-0.04	-0.07
TM 20	4.05	0.58	4.05	0.58	0.00	4.01	0.60	0.04	0.04	0.07
Obj 1	4.08	0.48	4.09	0.48	-0.01	4.05	0.45	0.03	0.04	0.08
Obj 2	4.03	0.48	4.03	0.48	0.00	4.01	0.45	0.02	0.02	0.04
Obj 3	4.06	0.50	4.06	0.50	0.00	4.04	0.47	0.02	0.02	0.04
Obj 4	4.02	0.51	4.02	0.51	0.00	3.99	0.48	0.03	0.03	0.06
Obj 5	3.56	0.77	3.56	0.77	0.00	3.49	0.67	0.07	0.07	0.09
Obj 6	3.51	0.75	3.51	0.75	0.00	3.53	0.66	-0.02	-0.02	-0.03
Obj 7	3.53	0.70	3.53	0.70	0.00	3.45	0.65	0.08	0.08	0.11
Obj 8	3.53	0.75	3.53	0.75	0.00	3.53	0.68	0.00	0.00	0
Obj 9	3.73	0.58	3.73	0.58	0.00	3.78	0.52	-0.05	-0.05	-0.09
Obj 10	3.62	0.66	3.62	0.66	0.00	3.61	0.62	0.01	0.01	0.02
Obj 11	3.78	0.61	3.78	0.61	0.00	3.76	0.58	0.02	0.02	0.03
Obj 12	3.85	0.55	3.85	0.55	0.00	3.79	0.53	0.06	0.06	0.11
CR 33	3.23	0.72	3.23	0.72	0.00	3.34	0.61	-0.11	-0.11	-0.15
CR 34	3.46	0.56	3.46	0.56	0.00	3.49	0.48	-0.03	-0.03	-0.05
CR 35	3.44	0.56	3.45	0.56	-0.01	3.43	0.52	0.01	0.02	0.04
Self 36	3.70	0.66	3.70	0.66	0.00	3.72	0.62	-0.02	-0.02	-0.03
Self 37	3.63	0.54	3.63	0.54	0.00	3.66	0.49	-0.03	-0.03	-0.06
Self 38	3.51	0.67	3.51	0.67	0.00	3.40	0.64	0.11	0.11	0.16
Self 39	3.37	0.54	3.37	0.54	0.00	3.46	0.51	-0.09	-0.09	-0.17
Self 43	3.77	0.33	3.76	0.33	0.01	3.85	0.29	-0.08	-0.09	-0.28
GL 40	3.94	0.58	3.94	0.58	0.00	3.91	0.56	0.03	0.03	0.05
GL 41	4.25	0.61	4.25	0.61	0.00	4.16	0.62	0.09	0.09	0.15
GL 42	4.01	0.59	4.01	0.59	0.00	3.98	0.59	0.03	0.03	0.05
PRO	52.38	8.37	52.41	8.38	-0.03	51.49	8.10	0.89	0.92	0.11
PROadj	51.14	8.57	51.21	8.59	-0.07	49.04	8.48	2.1	2.17	0.25

Note: TM=Teaching Method; Obj=Learning Objective; CR=Course Rating; Self=Self-Rating; G=Global; PRO=Progress on relevant objectives; adj=adjusted. Δ=Change between 2002-2008 IDEA Database mean minus 2002-2008 Paper or Online mean. Approx *d* = measure of effect size (see footnote page 12). *Short Forms*, first-time institutions' classes, and classes with < 10 responses removed.

Table 14

Descriptive Statistics for Student Ratings of Progress on Objectives by Type of Course Instruction At Each Level of Instructor Rating of Importance

Paper Survey

	Minor			Important			Essential			Important & Essential		
Learning Outcome	***M***	***SD***	***N***	***M***	***SD***	***N***	***M***	***SD***	***N***	***M***	***SD***	***N***
1. Factual knowledge	3.96	0.52	48,810	4.07	0.48	71,063	4.16	0.45	116,565	4.13	0.46	187,628
2. Principles and theories	3.93	0.51	57,649	4.04	0.47	79,214	4.09	0.46	98,064	4.07	0.46	177,278
3. Applications	3.97	0.50	55,333	4.05	0.49	92,626	4.13	0.50	87,446	4.09	0.49	180,072
4. Professional skills, viewpoints	3.90	0.51	102,196	4.07	0.50	67,486	4.19	0.50	57,611	4.13	0.50	125,097
5. Team skills	3.38	0.77	154,469	3.92	0.60	50,089	4.14	0.56	19,117	3.98	0.59	69,206
6. Creative capacities	3.38	0.74	172,005	3.80	0.64	28,637	4.13	0.57	20,896	3.94	0.61	49,533
7. Broad liberal education	3.43	0.69	165,464	3.71	0.67	34,574	3.99	0.60	22,013	3.82	0.64	56,587
8. Communication skills	3.31	0.75	125,725	3.69	0.65	58,231	4.04	0.54	42,733	3.84	0.60	100,964
9. Find, use resources	3.65	0.59	136,889	3.81	0.55	64,070	3.93	0.55	23,538	3.84	0.55	87,608
10. Values development	3.53	0.66	169,244	3.83	0.60	35,812	4.04	0.56	15,025	3.89	0.59	50,837
11. Critical analysis	3.65	0.62	118,464	3.85	0.58	61,699	4.01	0.53	46,991	3.92	0.56	108,690
12. Interest in learning	3.82	0.55	134,471	3.86	0.55	64,027	3.95	0.56	23,181	3.88	0.55	87,208

Online Survey

	Minor			Important			Essential			Important & Essential		
Learning Outcome	***M***	***SD***	***N***	***M***	***SD***	***N***	***M***	***SD***	***N***	***M***	***SD***	***N***
1. Factual knowledge	3.95	0.49	1,464	4.05	0.45	2,583	4.12	0.42	3,652	4.09	0.43	6,235
2. Principles and theories	3.96	0.49	1,770	4.02	0.45	2,767	4.06	0.43	3,146	4.04	0.44	5,913
3. Applications	3.99	0.47	1,467	4.02	0.47	3,123	4.09	0.47	3,186	4.06	0.47	6,309
4. Professional skills, viewpoints	3.91	0.47	3,052	4.03	0.46	2,304	4.13	0.45	1,960	4.08	0.46	4,264
5. Team skills	3.37	0.67	5,104	3.81	0.59	1,500	3.99	0.55	518	3.86	0.58	2,018
6. Creative capacities	3.46	0.66	5,575	3.71	0.60	1,160	3.96	0.57	442	3.78	0.59	1,602
7. Broad liberal education	3.37	0.64	5,456	3.63	0.61	949	3.86	0.61	811	3.74	0.61	1,760
8. Communication skills	3.33	0.71	3,963	3.68	0.59	2,095	3.93	0.52	1,179	3.77	0.56	3,274
9. Find, use resources	3.70	0.54	3,746	3.84	0.50	2,389	3.96	0.49	1,113	3.88	0.50	3,502
10. Values development	3.52	0.64	5,209	3.81	0.53	1,404	3.98	0.50	595	3.86	0.52	1,999
11. Critical analysis	3.64	0.60	3,440	3.84	0.56	2,315	3.95	0.51	1,564	3.88	0.54	3,879
12. Interest in learning	3.77	0.55	4,165	3.83	0.53	2,048	3.87	0.50	876	3.84	0.52	2,924

Note: Students responded to all items on a scale of 1 = *No Apparent Progress* to 5 = *Exceptional progress; I made outstanding gains on this objective.* *Short Form* classes, first-time institutions' classes, and classes with < 10 responses removed.

Correlations between Instructor and Student Ratings of Learning Objectives

Correlating student reported progress for each objective with instructor ratings of the importance of those objectives provides an indirect test of the validity of the IDEA ratings. Specifically, the highest correlations should be found in ratings of the same objectives (see Hoyt, 1973). The correlations in Table 15 confirmed that correlations among ratings of the same objectives (indicated in bold along the diagonal) are, on average, higher regardless of survey delivery method. The average correlation between instructor and student ratings of the same 12 learning outcomes was about the same in paper (r = .22) and online (r = .20) administrations. In addition, the average off-diagonal correlation was quite low in both formats, rs = .04 and .03, respectively. This indirect evidence of the validity of the student ratings is not impacted by survey delivery method.

Table 15

Inter-correlations between Faculty Ratings and Student Ratings of Learning Objectives for Paper and Online Surveys

Paper												
Item	**FR1**	**FR2**	**FR3**	**FR4**	**FR5**	**FR6**	**FR7**	**FR8**	**FR9**	**FR10**	**FR11**	**FR12**
SR21	**0.16**	0.08	0.03	0.09	-0.03	-0.06	-0.07	-0.12	-0.05	-0.03	-0.08	-0.02
SR22	0.11	**0.13**	0.07	0.09	-0.01	-0.05	-0.09	-0.12	-0.05	0.01	-0.05	0.00
SR23	-0.02	0.00	**0.12**	0.18	0.06	0.04	-0.12	-0.02	0.02	0.05	-0.03	0.02
SR24	0.00	-0.02	0.08	**0.23**	0.07	0.08	-0.10	-0.02	0.01	0.02	-0.06	0.00
SR25	-0.12	-0.08	0.12	0.17	**0.36**	0.06	-0.06	0.11	0.08	0.08	-0.01	0.04
SR26	-0.24	-0.20	-0.01	0.12	0.15	**0.32**	0.15	0.28	0.11	0.10	0.13	0.07
SR27	-0.12	-0.13	-0.07	0.02	0.07	0.22	**0.26**	0.18	0.04	0.11	0.11	0.09
SR28	-0.22	-0.18	0.00	0.05	0.15	0.16	0.10	**0.39**	0.13	0.15	0.21	0.09
SR29	-0.05	-0.06	0.09	0.12	0.10	0.04	-0.06	0.13	**0.17**	0.03	0.07	0.05
SR30	-0.10	-0.06	0.06	0.09	0.12	0.08	0.01	0.12	0.08	**0.24**	0.12	0.11
SR31	-0.14	-0.06	0.04	0.03	0.07	0.06	0.02	0.18	0.08	0.14	**0.23**	0.09
SR32	-0.05	-0.03	0.06	0.10	0.07	0.06	-0.01	0.06	0.06	0.10	0.07	**0.08**

Online												
Item	**FR1**	**FR2**	**FR3**	**FR4**	**FR5**	**FR6**	**FR7**	**FR8**	**FR9**	**FR10**	**FR11**	**FR12**
SR21	**0.15**	0.04	0.01	0.08	-0.08	-0.10	-0.04	-0.07	-0.03	-0.04	-0.06	-0.02
SR22	0.12	**0.08**	0.04	0.07	-0.07	-0.08	-0.04	-0.05	-0.04	0.00	-0.02	-0.01
SR23	0.00	-0.03	**0.09**	0.14	0.02	-0.02	-0.07	0.01	0.02	0.05	-0.01	0.00
SR24	0.01	-0.03	0.06	**0.19**	0.02	-0.01	-0.09	0.01	0.02	0.01	-0.05	-0.01
SR25	-0.14	-0.12	0.07	0.13	**0.32**	0.03	-0.03	0.10	0.04	0.07	0.03	0.03
SR26	-0.15	-0.14	0.01	0.09	0.12	**0.21**	0.15	0.27	0.11	0.13	0.13	0.08
SR27	-0.04	-0.09	-0.05	-0.02	0.01	0.13	**0.26**	0.19	0.02	0.12	0.12	0.09
SR28	-0.15	-0.15	0.00	0.04	0.10	0.13	0.14	**0.34**	0.13	0.19	0.20	0.09
SR29	-0.03	-0.09	0.06	0.11	0.05	0.03	0.02	0.15	**0.18**	0.06	0.08	0.05
SR30	-0.08	-0.10	0.02	0.05	0.04	0.05	0.07	0.17	0.07	**0.25**	0.14	0.08
SR31	-0.08	-0.07	0.04	0.01	0.04	0.04	0.08	0.20	0.08	0.16	**0.21**	0.09
SR32	-0.04	-0.07	0.04	0.08	0.04	0.03	0.06	0.12	0.08	0.12	0.10	**0.07**

Note: *Short Form* classes, first-time institutions' classes, and classes with < 10 responses removed. Average r on-diagonal, Paper = .22, Online = .20; average r off-diagonal, Paper = .04, Online = .03. Ns for paper and online surveys = 253,450 to 254,151 and = 8,497 to 8,503, respectively.

Correlations between Student Ratings of Progress on Learning Objectives and of the Instructors' Use of Teaching Methods

Table 16 provides correlations between student ratings of progress on the 12 learning objectives ("Obj 1" to "Obj 12") and the 20 teaching methods ("TM 1" to "TM 20"). All correlations were computed using only instructors who rated the objective as either "important" or "essential." The pattern of correlations was very consistent across survey methods. Furthermore, the teaching methods that were highly correlated with learning objectives ($r \geq .60$) closely followed the findings in Hoyt and Lee (2002).

Table 16

Correlations between Student Ratings on Learning Outcomes and Teaching Methods for Paper and Online Surveys

Paper												
Item	**Obj1**	**Obj2**	**Obj3**	**Obj4**	**Obj5**	**Obj6**	**Obj7**	**Obj8**	**Obj9**	**Obj10**	**Obj11**	**Obj12**
TM 1	0.69	0.70	0.75	0.74	0.53	0.61	0.60	0.60	0.64	0.68	0.66	0.72
TM 2	0.74	0.76	0.80	0.78	0.59	0.64	0.63	0.64	0.71	0.74	0.74	0.80
TM 3	0.68	0.69	0.72	0.71	0.53	0.59	0.56	0.59	0.65	0.64	0.63	0.68
TM 4	0.77	0.77	0.81	0.80	0.54	0.57	0.61	0.56	0.64	0.72	0.68	0.74
TM 5	0.30	0.33	0.43	0.43	0.77	0.43	0.36	0.50	0.48	0.48	0.46	0.47
TM 6	0.79	0.78	0.81	0.80	0.57	0.58	0.63	0.57	0.65	0.71	0.69	0.74
TM 7	0.68	0.69	0.75	0.76	0.59	0.71	0.66	0.69	0.70	0.68	0.71	0.74
TM 8	0.77	0.78	0.79	0.78	0.60	0.63	0.65	0.65	0.75	0.74	0.77	0.82
TM 9	0.54	0.53	0.61	0.61	0.54	0.52	0.51	0.64	0.80	0.60	0.63	0.67
TM 10	0.76	0.75	0.77	0.76	0.51	0.58	0.63	0.59	0.64	0.68	0.67	0.72
TM 11	0.63	0.64	0.71	0.70	0.52	0.42	0.43	0.48	0.56	0.69	0.60	0.65
TM 12	0.71	0.72	0.69	0.67	0.45	0.43	0.47	0.46	0.57	0.57	0.56	0.62
TM 13	0.76	0.77	0.80	0.80	0.58	0.65	0.71	0.63	0.69	0.78	0.76	0.80
TM 14	0.46	0.47	0.60	0.64	0.72	0.62	0.46	0.53	0.65	0.58	0.53	0.60
TM 15	0.71	0.73	0.81	0.81	0.66	0.74	0.66	0.69	0.77	0.76	0.74	0.81
TM 16	0.49	0.53	0.62	0.62	0.59	0.60	0.62	0.70	0.65	0.75	0.73	0.71
TM 17	0.62	0.63	0.63	0.62	0.44	0.49	0.47	0.51	0.56	0.56	0.54	0.60
TM 18	0.59	0.62	0.71	0.70	0.71	0.63	0.59	0.65	0.69	0.72	0.69	0.75
TM 19	0.54	0.57	0.67	0.67	0.60	0.76	0.65	0.77	0.72	0.68	0.73	0.72
TM 20	0.64	0.65	0.68	0.67	0.56	0.54	0.55	0.59	0.67	0.66	0.63	0.69

Online												
Item	**Obj1**	**Obj2**	**Obj3**	**Obj4**	**Obj5**	**Obj6**	**Obj7**	**Obj8**	**Obj9**	**Obj10**	**Obj11**	**Obj12**
TM 1	0.70	0.71	0.74	0.73	0.59	0.69	0.58	0.62	0.62	0.65	0.63	0.73
TM 2	0.73	0.75	0.78	0.78	0.64	0.72	0.60	0.66	0.69	0.70	0.70	0.79
TM 3	0.69	0.70	0.73	0.72	0.51	0.66	0.51	0.63	0.66	0.65	0.67	0.71
TM 4	0.77	0.78	0.81	0.80	0.58	0.69	0.58	0.63	0.67	0.71	0.68	0.76
TM 5	0.31	0.33	0.42	0.41	0.76	0.49	0.38	0.44	0.45	0.46	0.49	0.49
TM 6	0.78	0.79	0.81	0.80	0.61	0.71	0.61	0.65	0.66	0.71	0.69	0.76
TM 7	0.66	0.69	0.73	0.73	0.62	0.74	0.60	0.69	0.66	0.66	0.69	0.75
TM 8	0.74	0.77	0.79	0.78	0.63	0.73	0.64	0.70	0.72	0.71	0.74	0.81
TM 9	0.53	0.55	0.63	0.63	0.58	0.66	0.50	0.66	0.80	0.60	0.67	0.71
TM 10	0.77	0.78	0.79	0.79	0.57	0.71	0.64	0.67	0.66	0.70	0.69	0.75
TM 11	0.64	0.67	0.73	0.70	0.59	0.58	0.38	0.53	0.56	0.66	0.58	0.67
TM 12	0.74	0.75	0.75	0.74	0.48	0.57	0.49	0.55	0.63	0.59	0.63	0.67
TM 13	0.75	0.78	0.80	0.79	0.62	0.74	0.67	0.68	0.69	0.75	0.74	0.81
TM 14	0.47	0.48	0.60	0.61	0.72	0.67	0.42	0.53	0.63	0.54	0.57	0.62
TM 15	0.70	0.72	0.80	0.79	0.70	0.78	0.58	0.71	0.75	0.73	0.74	0.82
TM 16	0.45	0.50	0.58	0.56	0.60	0.69	0.54	0.67	0.62	0.70	0.73	0.71
TM 17	0.63	0.63	0.63	0.63	0.47	0.58	0.48	0.55	0.56	0.56	0.56	0.61
TM 18	0.53	0.57	0.63	0.62	0.71	0.66	0.51	0.59	0.60	0.62	0.65	0.70
TM 19	0.55	0.60	0.68	0.67	0.63	0.79	0.60	0.76	0.74	0.71	0.79	0.78
TM 20	0.66	0.68	0.71	0.70	0.58	0.64	0.55	0.61	0.64	0.61	0.62	0.70

Note: *N*s for paper and online courses = 254,151 and = 8,503, respectively.

Correlations between Student Characteristics, Global Ratings of the Course and Instructor, and Perceived Progress on Relevant Objectives

In the IDEA Diagnostic Form Report, student ratings of the instructor, the course, and overall progress on relevant (important or essential) objectives (PRO) are adjusted for student/course characteristics that influence ratings but are beyond the control of the instructor. Therefore, it is important to investigate the similarity of the correlations across survey formats (see Table 17). The pattern of correlations was similar across mode with one exception. Student self-rating of effort in the course (D43) was somewhat more highly correlated with desire to take the course regardless of who taught it (D39) in the paper (r = .33) than the online (r = .17) survey delivery format. However, regardless of survey delivery method, the relationship was low-to-moderate and positive. No other correlations were meaningfully different between paper and online survey methods. There were more similarities than differences in the magnitude and direction of correlations across online and paper delivery.

Table 17

Inter-Correlations between Student/Course Characteristics and Summary Judgment Items

Student Item	D33	D34	D35	D36	D37	D38	D39	D43	D40	D41	D42	Raw T PRO
Amount of reading in class (D33)	1.00											
Amount of other work (D34)	0.21	1.00										
Difficulty of subject (D35)	0.41	0.54	1.00									
Strong desire to take course (D36)	0.07	0.14	0.08	1.00								
Work harder on course (D37)	0.33	0.68	0.66	0.47	1.00							
Wanted to take course from instructor (D38)	0.07	0.17	0.12	0.63	0.43	1.00						
Wanted to take course regardless (D39)	0.06	0.16	0.09	0.78	0.40	0.33	1.00					
Put forth more effort in all classes (D43)	0.15	0.32	0.25	0.37	0.46	0.41	**0.33**	1.00				
Positive feelings toward field (D40)	0.09	0.11	0.01	0.77	0.42	0.73	0.58	0.36	1.00			
Excellent Teacher (D41)	0.03	0.07	-0.02	0.47	0.29	0.74	0.27	0.20	0.77	1.00		
Excellent Course (D42)	0.05	0.10	-0.01	0.72	0.40	0.74	0.53	0.32	0.91	0.85	1.00	
Raw TSCORE PRO (Raw T PRO)	0.15	0.22	0.10	0.53	0.45	0.72	0.37	0.37	0.78	0.80	0.81	1.00
Adjusted TSCORE PRO	0.09	0.09	0.10	0.27	0.30	0.59	0.02	0.01	0.60	0.75	0.66	0.87
Amount of reading in class (D33)	1											
Amount of other work (D34)	0.29	1										
Difficulty of subject (D35)	0.41	0.55	1									
Strong desire to take course (D36)	0.13	0.05	0.03	1								
Work harder on course (D37)	0.39	0.67	0.66	0.39	1							
Wanted to take course from instructor (D38)	0.10	0.11	0.14	0.56	0.37	1						
Wanted to take course regardless (D39)	0.08	0.06	0.02	0.76	0.31	0.23	1					
Put forth more effort in all classes (D43)	0.19	0.27	0.20	0.26	0.37	0.33	**0.17**	1				
Positive feelings toward field (D40)	0.12	0.02	-0.04	0.75	0.34	0.69	0.56	0.27	1			
Excellent Teacher (D41)	0.08	0.00	-0.02	0.45	0.24	0.72	0.26	0.17	0.77	1		
Excellent Course (D42)	0.12	0.00	-0.05	0.67	0.31	0.69	0.47	0.22	0.89	0.87	1	
Raw TSCORE PRO (Raw T PRO)	0.16	0.12	0.05	0.53	0.36	0.68	0.34	0.31	0.80	0.82	0.83	1
Adjusted TSCORE PRO	0.09	0.03	0.07	0.29	0.25	0.59	0.03	-0.02	0.62	0.75	0.70	0.88

Note: Differences ≥ |.15| in correlations between online and traditional courses are bolded.
*N*s for Traditional and Online Courses = 253,450 to 254,151 and = 8,497 to 8,503, respectively.
The letter and number in parentheses indicates the number of item on the Diagnostic (D) form.
Short Form classes, first-time institutions' classes, and classes with < 10 responses removed.

Correlations between Student Ratings of Teaching Methods and Global Ratings of the Course and Instructor

Table 18 presents correlations between student ratings of how frequently the instructor used each of 20 teaching methods, global ratings of teaching effectiveness, and both raw and adjusted progress on relevant objectives scores (Raw PRO, Adj PRO, respectively). The three global ratings of teaching effectiveness were: "As a result of taking this course, I have more positive feelings toward this field of study" (D40/S16); "Overall, I rate this instructor an excellent teacher" (D41/S17); and "Overall, I rate this course as excellent" (D42S/18). The pattern of correlations in Table 18 is very consistent across survey methods. Survey method did not impact the relationship of teaching methods to global outcome measures of teaching effectiveness.

Table 18

Inter-Correlations between Student Ratings of Teaching Methods and Summary Judgment Items for Paper and Online Surveys

	Paper Courses					Online Courses				
Item	**D40/ S16**	**D41/ S17**	**D42/ S18**	**Raw PRO**	**Adj PRO**	**D40 /S16**	**D41 /S17**	**D42 /S18**	**Raw PRO**	**Adj PRO**
TM 1	0.70	0.85	0.74	0.76	0.67	0.68	0.87	0.74	0.75	0.67
TM 2	0.72	0.86	0.77	0.81	0.72	0.70	0.89	0.78	0.79	0.72
TM 3	0.62	0.76	0.69	0.73	0.65	0.63	0.80	0.73	0.74	0.65
TM 4	0.77	0.83	0.80	0.80	0.71	0.76	0.86	0.81	0.81	0.72
TM 5	0.35	0.35	0.35	0.43	0.29	0.37	0.40	0.37	0.43	0.31
TM 6	0.77	0.85	0.80	0.81	0.72	0.76	0.86	0.81	0.81	0.71
TM 7	0.67	0.75	0.71	0.78	0.65	0.65	0.80	0.72	0.74	0.65
TM 8	0.69	0.76	0.73	0.83	0.72	0.71	0.83	0.76	0.81	0.70
TM 9	0.52	0.55	0.54	0.63	0.50	0.58	0.65	0.61	0.64	0.52
TM 10	0.72	0.90	0.80	0.79	0.73	0.74	0.91	0.83	0.81	0.74
TM 11	0.68	0.68	0.68	0.68	0.58	0.69	0.71	0.69	0.68	0.57
TM 12	0.61	0.73	0.67	0.68	0.65	0.65	0.78	0.74	0.74	0.67
TM 13	0.80	0.83	0.82	0.82	0.71	0.79	0.86	0.83	0.82	0.70
TM 14	0.55	0.48	0.53	0.58	0.39	0.57	0.54	0.55	0.57	0.42
TM 15	0.72	0.75	0.75	0.81	0.66	0.73	0.81	0.77	0.80	0.67
TM 16	0.59	0.58	0.59	0.64	0.50	0.58	0.61	0.60	0.59	0.46
TM 17	0.55	0.70	0.62	0.65	0.60	0.55	0.76	0.66	0.65	0.61
TM 18	0.60	0.65	0.63	0.71	0.57	0.57	0.67	0.61	0.64	0.54
TM 19	0.59	0.61	0.61	0.69	0.54	0.63	0.68	0.67	0.69	0.56
TM 20	0.58	0.69	0.61	0.70	0.60	0.61	0.78	0.67	0.72	0.64

Note: *N*s for paper and online surveys = 430,853 to 432,537 and = 32,714 to 32,827, respectively.
The letter and number in parentheses indicates the number of item on the *Diagnostic* (D) and *Short* (S) *Forms* respectively.
RAW PRO = Raw T-Score PRO, Adj PRO = Adjusted T-Score PRO.

CONCLUSIONS

The purpose of this study was to investigate if survey delivery method (paper versus online administration) has an impact on student ratings of instruction using the IDEA Student Ratings of Instruction system. The results of this study reveal more similarities than meaningful differences for either faculty ratings (using the Faculty Information Form) or student ratings (using the Diagnostic Form), suggesting that ratings are not impacted by survey delivery method.

- Instructor ratings of the importance of the 12 IDEA learning objectives do not differ meaningfully between survey methods. Mean instructor ratings and the percent of instructors rating each objective as essential or important are very similar between formats.
- The pattern of inter-correlations among the learning objectives is remarkably similar.
- Student progress on relevant objectives and global ratings of instructor/course effectiveness are comparable. Students report similar progress and quality of teaching in online and paper versions.
- Students consistently report greater progress on objectives the instructor rates as important or essential regardless of delivery method. Moreover, the highest correlations between instructor ratings of importance and student ratings of progress are found in their ratings of the same objectives. Thus, the validity of the IDEA student ratings of progress is not impacted by survey delivery format.
- Students viewed instructor use of the 20 teaching methods similarly across survey delivery methods.
- The pattern of correlations between student ratings of teaching methods, progress on objectives, and global measures of teaching effectiveness are very much alike. Further, those correlations are comparable to those reported in Hoyt and Lee (2002a).
- The correlations between student/course characteristics and global measures of effectiveness for ratings completed online parallel those using paper.

The most notable difference was found in response rate, as students are more likely to complete ratings on paper. However, response rate was not meaningfully correlated with student ratings for either paper or online survey administration. Nonetheless, differences in response rate can affect representativeness and confidence in results. Improving response rates should continue to be a goal for campuses using online delivery.

Overall, the current findings provide support for administering the IDEA Student Ratings of Instruction system using either paper or online technology.

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