

# The IDEA Student Ratings of Instruction Group Summary Report

The IDEA Center  
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## Engineering-Related Technologies IDEA Group Summary Report

### Sections of the Report

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<u>Page</u>	<u>Section</u>
2	<b>I. Student Ratings of Overall Outcomes</b> <i>Shows the number of classes with ratings in various ranges on four "outcome" measures along with your group's averages as compared to the IDEA System. This information summarizes the quality of instruction in this unit (as inferred from IDEA ratings).</i>
3	<b>II. Faculty Selection of Essential and Important Course Objectives</b> <i>Provides information about the degree to which various learning objectives are emphasized in courses.</i>
4	<b>III. Student Ratings of Progress on Objectives Chosen as Essential or Important</b> <i>Summarizes student ratings of progress in classes where a given objective was chosen as <u>Essential</u> or <u>Important</u> by the instructor. Compares this unit's results with the IDEA System.</i>
6	<b>IV. Teaching Methods and Styles</b> <i>Summarizes how frequently specific teaching methods were used as rated by students (Diagnostic Form only).</i>
7	<b>V. Student Self-Ratings and Ratings of Course Characteristics</b> <i>Summarizes student ratings for student and course characteristics and compares the results to the IDEA system. Also summarizes student ratings on Experimental Items.</i>
8	<b>VI. Faculty Self-Report of the Institutional Context</b> A. Primary and Secondary Instructional Approaches. <i>Shows the relative frequency of various approaches to instruction.</i> B. Course Emphases. <i>Shows the degree to which classes in this area expose students to various kinds of academic activities.</i> C. "Circumstances" Impact on Learning. <i>Shows how instructors regard various factors that may facilitate or impede student learning.</i>
10	<b>VII. Additional Questions</b> <i>Provides frequencies, averages, and standard deviations for additional questions that are common for this unit (if requested).</i>

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Report includes classes from the following term(s): Dec. 1, 2001 to Aug. 31, 2003

Number of Classes Processed:	Number of Classes Included in Summary Report: <sup>1</sup>	Number of Student Responses Included:
Diagnostic Form: 897	Diagnostic Form: 871	Diagnostic Form: 13195
Short Form: 267	Short Form: 257	Short Form: 3033
<b>Total: 1164</b>	<b>Total: 1128</b>	<b>Total: 16228</b>

<sup>1</sup> Results for classes where faculty did not identify any objectives as being *Essential* or *Important* are excluded from Group Summary Reports.

## Section I: Student Ratings of Overall Outcomes

Section I shows the number and percentage of classes with ratings in various ranges for the four "outcome" measures. This information summarizes the quality of instruction in this unit (as inferred from IDEA ratings).

### Overall Outcome Measures:

- A. Number of classes obtaining "Low," "Low Average," "Average," "High Average," and "High" ratings on four overall measures.  
 B. Average T Scores are provided for the Progress on Relevant Objective measure, while the average on the 5-point scale is provided for the other three summary measures. Scores for this report can be compared to the IDEA System.

A. Overall Outcome Measures - Total Number of Classes																
T Score Category	Progress-Relevant Objectives				Improved Student Attitude				Excellence of Teacher				Excellence of Course			
	Raw		Adjstd		Raw		Adjstd		Raw		Adjstd		Raw		Adjstd	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Low (lowest 10%, 37 or lower)	78	7	95	8	77	7	115	10	121	11	135	12	94	8	123	11
Low Average (next 20%, 38-44)	135	12	179	16	96	9	165	15	135	12	141	13	118	10	195	17
Average (middle 40%, 45-55)	553	49	569	50	445	39	515	46	415	37	482	43	453	40	469	42
High Average (next 20%, 56-62)	276	24	220	20	361	32	233	21	382	34	327	29	328	29	267	24
High (highest 10%, 63 or higher)	86	8	65	6	149	13	100	9	75	7	43	4	135	12	74	7
B. Overall Outcome Measures - Averages																
	T Score				5-point Scale (1=low, 5=high)											
This Summary Report	51		50		4.0		3.9		4.2		4.2		4.1		3.9	
IDEA System <sup>1</sup>	51		51		3.9		3.9		4.2		4.2		3.9		3.9	

**Adjstd:** Scores on the Diagnostic Form have been adjusted for student desire to take the course regardless of who taught it, student work habits, instructor reported class size, student effort not attributable to the instructor, and course difficulty not attributable to the instructor. Short Form scores have been adjusted for student work habits, student desire to take the course regardless of who taught it, and instructor reported class size.

**T Score:** A statistically derived score which makes it easy to compare various measures. Unlike raw scores that have different averages and standard deviations (variabilities), T Scores all have an average of 50 and a standard deviation of 10. This means that 40% of all T Scores will be in the range of 45-55, while less than 2% will be below 30 or above 70.

- 1. Progress on Relevant (*Essential* and *Important*) Objectives.** Because student learning is the central purpose of teaching, and because instructors chose the objectives considered by this measure, it is probably the most vital measure of effectiveness. A double weight is given to student ratings of progress on objectives instructors chose as *Essential* and a single weight to those chosen as *Important*. Objectives identified as *Minor or No Importance* were ignored in developing this measure.
- 2. Improved Student Attitude.** The table shows students' responses to the item "As a result of taking this course, I have more positive feelings toward this field of study" (Diagnostic Form item #40, Short Form item #16). This rating is most meaningful for courses that are taken by many non-majors. Most teachers hope that such students will develop a respect and appreciation for the discipline even if they choose to take no additional courses in it.
- 3. Excellence of Teacher.** This shows the average response to "Overall, I rate this instructor an excellent teacher." Overall impressions of a teacher affect student attitudes, effort, and learning (Diagnostic Form item #41, Short Form item #17).
- 4. Excellence of Course.** This shows the average response to "Overall, I rate this course as excellent" (Diagnostic Form item #42, Short Form item #18). This rating is likely determined by a number of factors (e.g., teaching style, student satisfaction with course outcomes, and characteristics such as organization, selection of readings and/or other influences).

<sup>1</sup>Normative information and the process for adjusting scores (Diagnostic Form only) were updated on December 1, 2001. Short Form adjustments were updated on October 1, 2002.

## Section II: Faculty Selection of *Essential* and *Important* Course Objectives

The following provides information about the degree to which various learning objectives are emphasized in courses. Item numbers reflect those on the Faculty Information Form. The percentages (%) reflect how often each objective was selected for classes included in this summary report. Are the goals of the program being appropriately emphasized in course sections?

	Total Number of Course Sections and Percentage	
	N	%
1. Gaining factual knowledge (terminology, classifications, methods, trends)	1058	94
2. Learning fundamental principles, generalizations, or theories	981	87
3. Learning to <i>apply</i> course material (to improve thinking, problem solving, and decisions)	989	88
4. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course	954	85
5. Acquiring skills in working with others as a member of a team	494	44
6. Developing creative capacities (writing, inventing, designing, performing in art, music, drama, etc.)	290	26
7. Gaining a broader understanding and appreciation of intellectual/cultural activity (music, science, literature, etc.)	167	15
8. Developing skill in expressing myself orally or in writing	443	39
9. Learning how to find and use resources for answering questions or solving problems	678	60
10. Developing a clearer understanding of, and commitment to, personal values	214	19
11. Learning to <i>analyze</i> and <i>critically evaluate</i> ideas, arguments, and points of view	401	36
12. Acquiring an interest in learning more by asking my own questions and seeking answers	497	44

**Average number of objectives selected per class: 6.4**

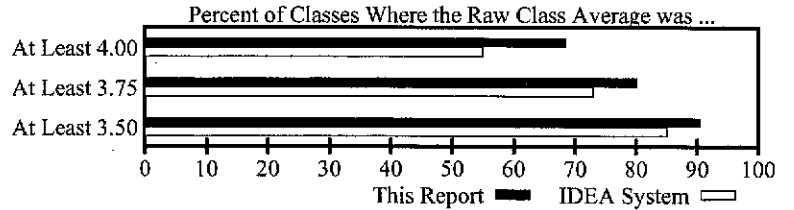
In general, it is recommended that 3-5 learning objectives be selected as *Important* or *Essential* for each class. To what degree are instructors focusing their learning objectives?

**Section III: Student Ratings of Progress on Objectives Chosen as *Essential* or *Important***

Section III summarizes student ratings of progress in classes where a given objective was chosen as *Essential* or *Important* by the instructor. Results for this summary report are compared with those for the IDEA System. On which objectives do students report the most progress? The least? How do our results compare with those of the national database? Do we have apparent "strengths" and/or "weaknesses"? (Progress ratings were made on a 5-point scale; 1=low, 5=high.)

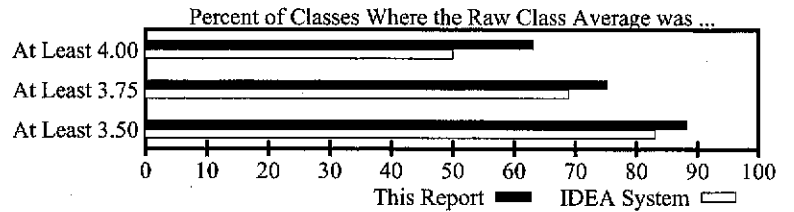
**Objective 1: Gaining factual knowledge (terminology, classifications, methods, trends)**

	Raw Avg.	Adjstd. Avg.	# of Classes
This Summary Report	4.1	4.0	1058
IDEA System	4.0	4.0	32007



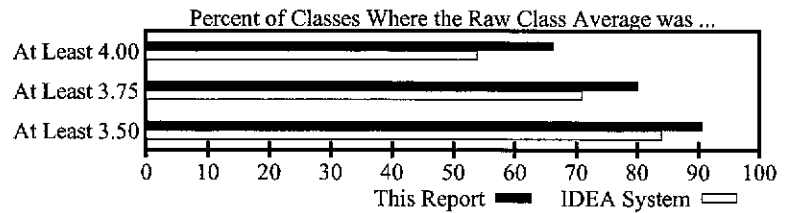
**Objective 2: Learning fundamental principles, generalizations, or theories**

	Raw Avg.	Adjstd. Avg.	# of Classes
This Summary Report	4.0	4.0	981
IDEA System	3.9	3.9	30353



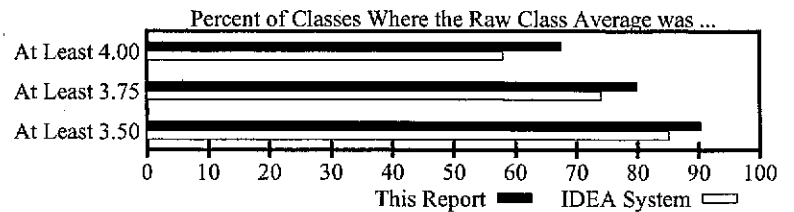
**Objective 3: Learning to *apply* course material (to improve thinking, problem solving, and decisions)**

	Raw Avg.	Adjstd. Avg.	# of Classes
This Summary Report	4.1	4.0	989
IDEA System	4.0	4.0	30437



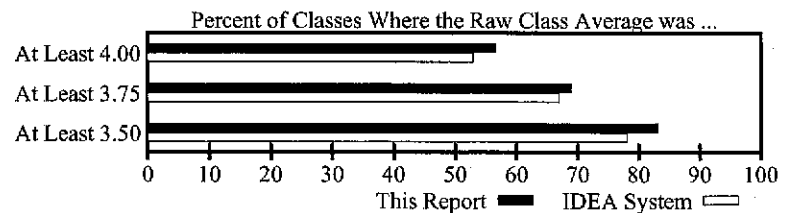
**Objective 4: Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course**

	Raw Avg.	Adjstd. Avg.	# of Classes
This Summary Report	4.1	4.0	954
IDEA System	4.0	4.0	21532



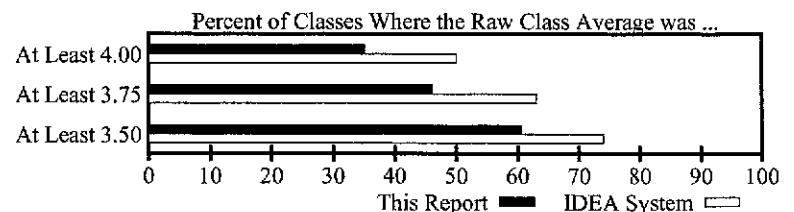
**Objective 5: Acquiring skills in working with others as a member of a team**

	Raw Avg.	Adjstd. Avg.	# of Classes
This Summary Report	4.0	3.9	494
IDEA System	3.9	3.9	12125



**Objective 6: Developing creative capacities (writing, inventing, designing, performing in art, music, drama, etc.)**

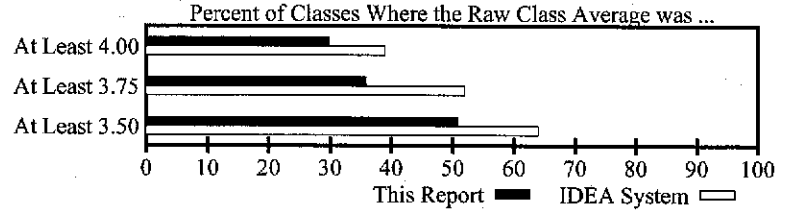
	Raw Avg.	Adjstd. Avg.	# of Classes
This Summary Report	3.6	3.5	290
IDEA System	3.9	3.9	9281



**Section III: Student Ratings of Progress on Objectives Chosen as *Essential* or *Important* (Cont'd)**

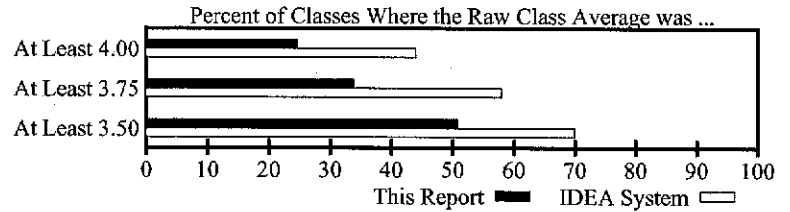
**Objective 7: Gaining a broader understanding and appreciation of intellectual/cultural activity (music, science, literature, etc.)**

	Raw Avg.	Adjstd. Avg.	# of Classes
This Summary Report	3.5	3.3	167
IDEA System	3.7	3.7	10307



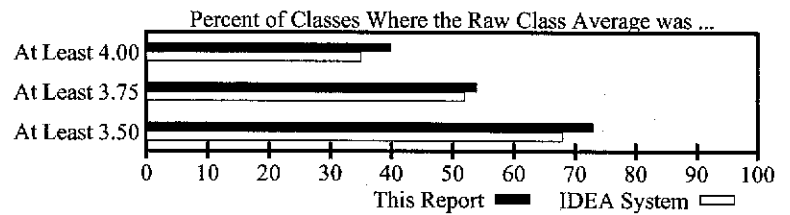
**Objective 8: Developing skill in expressing myself orally or in writing**

	Raw Avg.	Adjstd. Avg.	# of Classes
This Summary Report	3.5	3.4	443
IDEA System	3.8	3.8	18213



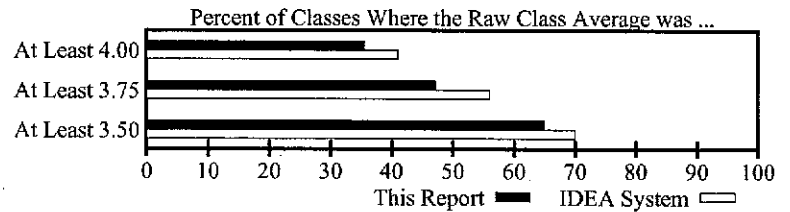
**Objective 9: Learning how to find and use resources for answering questions or solving problems**

	Raw Avg.	Adjstd. Avg.	# of Classes
This Summary Report	3.8	3.7	678
IDEA System	3.7	3.7	15676



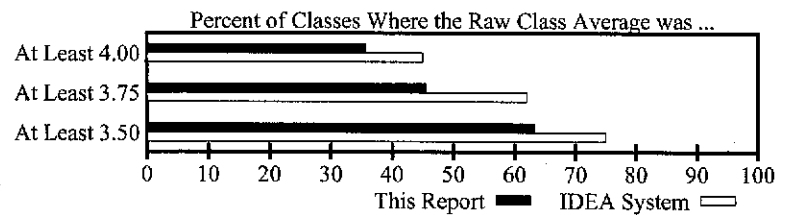
**Objective 10: Developing a clearer understanding of, and commitment to, personal values**

	Raw Avg.	Adjstd. Avg.	# of Classes
This Summary Report	3.7	3.6	214
IDEA System	3.8	3.8	8719



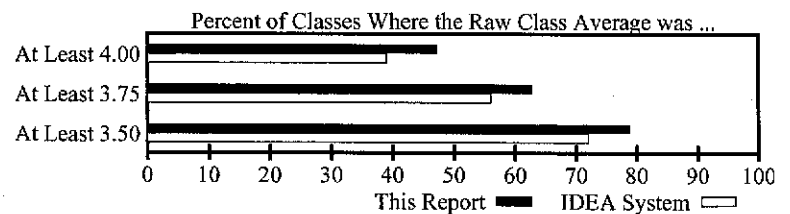
**Objective 11: Learning to *analyze* and *critically evaluate* ideas, arguments, and points of view**

	Raw Avg.	Adjstd. Avg.	# of Classes
This Summary Report	3.7	3.6	401
IDEA System	3.8	3.8	18935



**Objective 12: Acquiring an interest in learning more by asking my own questions and seeking answers**

	Raw Avg.	Adjstd. Avg.	# of Classes
This Summary Report	3.9	3.8	497
IDEA System	3.8	3.8	15659



**Section IV: Teaching Methods and Styles**

This section summarizes the frequency with which specific teaching methods were rated as "frequently" or "infrequently" used (Diagnostic Form only). Data for a given class were included *only if the teaching method was relevant* (significantly related to progress on *Important* or *Essential* objectives). This information can help identify faculty development needs (infrequent teaching methods that a number of faculty may need to consider increasing use).

Teaching Methods and Styles	No. of Classes	Avg.	s. d. <sup>1</sup>	% of Classes Where Method was "Infrequently" (■) or "Frequently" (□) Used
<b>A. Stimulating Student Interest</b>				
4. Demonstrated the importance and significance of the subject matter	868	4.3	0.5	
8. Stimulated students to intellectual effort beyond that required by most courses	871	3.9	0.6	
13. Introduced stimulating ideas about the subject	871	4.0	0.6	
15. Inspired students to set and achieve goals which really challenged them	871	3.8	0.6	
<b>B. Fostering Student Collaboration</b>				
5. Formed "teams" or "discussion groups" to facilitate learning	405	3.9	0.7	
16. Asked students to share ideas and experiences with others whose backgrounds and viewpoints differ from their own	537	3.8	0.6	
18. Asked students to help each other understand ideas or concepts	707	3.9	0.6	
<b>C. Establishing Rapport</b>				
1. Displayed a personal interest in students and their learning	843	4.4	0.5	
2. Found ways to help students answer their own questions	871	4.2	0.5	
7. Explained the reasons for criticisms of students' academic performance	863	3.8	0.6	
20. Encouraged student-faculty interaction outside of class (office visits, phone calls, e-mail, etc.)	294	3.8	0.6	
<b>D. Encouraging Student Involvement</b>				
9. Encouraged students to use multiple resources (e.g. data banks, library holdings, outside experts) to improve understanding	535	3.9	0.6	
11. Related course material to real life situations	807	4.3	0.5	
14. Involved students in "hands on" projects such as research, case studies, or "real life" activities	640	4.1	0.6	
19. Gave projects, tests, or assignments that required original or creative thinking	684	4.0	0.6	
<b>E. Structuring Classroom Experiences</b>				
3. Scheduled course work (class activities, tests, projects) in ways which encouraged students to stay up to date in their work	316	4.3	0.5	
6. Made it clear how each topic fit into the course	870	4.2	0.5	
10. Explained course material clearly and concisely	868	4.1	0.6	
12. Gave tests, projects, etc. that covered the most important points of the course	835	4.3	0.5	
17. Provided timely and frequent feedback on tests, reports, projects, etc. to help students improve	0	NA	NA	

Ratings were made on a 5-point scale (1=Hardly ever, 5=Almost always).

<sup>1</sup> Approximately two-thirds of class averages will be within ±1 standard deviation of the group's average.

### Section V: Student Self-ratings and Ratings of Course Characteristics

This section summarizes **A. Student Self-ratings** of their motivation, academic effort, and work habits; student ratings of **B. Course Characteristics** related to amount of reading, other work, and course difficulty; and **C. Experimental Items**. Information in Tables A and B may be compared to students' perceptions of classes in the entire IDEA System.

Item averages and information about the "Middle 50%" is provided for **Student Self-ratings and Course Characteristics**. You may compare individual class scores with the Middle 50% range for *This Report* or the *IDEA System*. Classes that exceed the upper number of the range are in the top quarter of classes. Conversely, classes whose average fall below the lower number in the range are in the bottom quarter.

The size of the "middle 50%" range allows you to infer how similar courses are for each item. The larger the range, the more dissimilar classes included in this report are with respect to the characteristic being measured.

#### A. Student Self-ratings\*

Classes using the Short Form before October 7, 2002 were included in this report. Because of survey differences, Student Self-rating results cannot be reported in this Group Summary Report.

#### B. Student Ratings of Course Characteristics\*\*

Diagnostic Form Item Number and Item	Average		Middle 50%
	This Report	IDEA System	
33. Amount of reading	This Report	3.1	2.7 - 3.5
	IDEA System	3.2	2.8 - 3.7
34. Amount of work in other (non-reading) assignments	This Report	3.6	3.2 - 4.0
	IDEA System	3.4	3.1 - 3.9
35. Difficulty of subject matter	This Report	3.5	3.2 - 3.8
	IDEA System	3.4	3.1 - 3.9

#### C. Experimental Items\*

Diagnostic Form Item Number and Item	Average	Standard Deviation
44. The instructor used a variety of methods--not only tests--to evaluate student progress on course objectives.	4.0	0.5
45. The instructor expected students to take their share of responsibility for learning.	4.3	0.3
46. The instructor had high achievement standards in this class.	4.1	0.4
47. The instructor used educational technology (e.g., Internet, e-mail, computer exercises, multi-media presentations, etc.) to promote learning.	4.0	0.6

\* 1=Definitely false 2=More false than true 3=In between 4=More true than false 5=Definitely true

\*\* 1=Much less than most courses 2=Less than most courses 3=About average 4=More than most courses 5=Much more than most courses

NA indicates data were unavailable or inapplicable. This may indicate that no responses were available for a given item or that the number of valid responses for that item was less than 5. The Middle 50% is not calculated without at least 5 valid responses.

### Section VI: Faculty Self-report of the Institutional Context

**A. Primary and Secondary Instructional Approaches:** Shows the relative frequency of various approaches to instruction. Since students have different learning styles, it is generally desirable that they be exposed to a variety of approaches. This information was reported by course instructors on the *Faculty Information Form*.

	Primary Approach		Secondary Approach	
	N	%	N	%
Lecture	617	55	234	21
Discussion/recitation	33	3	133	12
Seminar	16	1	13	1
Skill/activity	99	9	126	11
Laboratory	187	17	321	28
Field Experience	3	0	14	1
Studio	7	1	9	1
Multi-Media	5	0	22	2
Practicum/clinic	1	0	5	0
Other/Not Indicated	160	14	251	22

**B. Course Emphases:** Shows the degree to which classes in this area expose students to various kinds of academic activities. Generally, proficiency is related to the amount of exposure. Are we giving students enough opportunity to develop the skills they need after graduation? This information was reported by course instructors on the *Faculty Information Form*.

	Number Rating Emphasis	Amount Required					
		None or little		Some		Much	
		N	%	N	%	N	%
Writing	969	259	27	577	60	133	14
Oral communication	968	293	30	563	58	112	12
Computer applications	961	255	27	367	38	339	35
Group work	966	296	31	435	45	235	24
Mathematical/quantitative work	967	223	23	425	44	319	33
Critical thinking	967	99	10	465	48	403	42
Creative/artistic/design	968	514	53	322	33	132	14

## Section VI: The Institutional Context, Continued

**C. "Circumstances" Impact on Learning:** Shows how instructors regard various factors that may facilitate or impede student learning. Until research establishes the implications of these ratings, administrators should make their own appraisal of whether or not ratings of teaching effectiveness were affected by these factors. This information was reported by course instructors on the *Faculty Information Form*.

	Number Rating Circumstance	Impact on Learning					
		Negative		Neither Positive nor Negative		Positive	
		N	%	N	%	N	%
Physical facilities/equipment	898	112	12	283	32	503	56
Experience teaching the course	824	17	2	117	14	690	84
Changes in approach	723	30	4	458	63	235	33
Desire to teach the course	916	1	0	150	16	765	84
Control over course management decisions	886	13	1	246	28	627	71
Student background	854	193	23	362	42	299	35
Student enthusiasm	847	93	11	299	35	455	54
Student effort to learn	875	113	13	249	28	513	59
Technical/instructional support	826	37	4	411	50	378	46

## Classes Included in this Report

Report includes classes from the following class ID's:

**Section VII: Additional Questions**

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This section provides frequencies, average scores, and standard deviations for **Additional Questions** that were consistent across classes included in this summary report (if requested).

**Additional Questions**

**No additional questions requested.**