

**Reliability of the Items of the Instructional Assessment System:
Forms A-G**

91-1

Nana Lowell
Gerald M. Gillmore

*Office of Educational Assessment
University of Washington
January, 1991*

RELIABILITY OF THE ITEMS OF THE INSTRUCTIONAL ASSESSMENT SYSTEM: FORMS A-G

The Instructional Assessment System

The University of Washington (UW) was among the earliest institutions to systematically evaluate courses using student ratings. The first efforts at the UW were initiated in the 1920's, and over the years different methods of collecting and reporting ratings have been used. The Instructional Assessment System (IAS), currently in use, was introduced in 1974 and has grown considerably in use since that time.¹ It is used to collect student ratings from virtually all UW academic departments each quarter, and from approximately 20 other institutions nationwide. This report presents item means and reliability estimates for IAS evaluation items based on data gathered at the UW main campus during the 1989-90 academic year.² These data represent more than 150,000 ratings forms, evaluating nearly 7000 classes.

IAS ratings are obtained via optically scannable forms, eight of which have been developed to assess different class types. Each form contains twenty-two evaluation items organized in three sections: 1) general evaluation items, 2) items specific to a particular course type, and 3) items primarily of interest to students in selecting courses. General evaluation and student interest items are common to most forms, whereas items developed to reflect particular course characteristics are shared selectively across forms. A fourth section on each form requests descriptive information and a fifth contains response positions for optional items provided by the instructor; items in these sections are not addressed in this report.

The forms and their associated course types are shown in Table 1, along with the number of UW classes using each form during the 1989-90 academic year and the average number of students in each class who completed forms.

Table 1.
IAS FORMS AND FREQUENCY OF USE
(UW main campus; 1989-90)

	Course Type	Number of Classes	Average Class Size
Form A	small lecture/discussion	2344	16.9
Form B	large lecture	1117	45.0
Form C	seminar/discussion	718	13.2
Form D	problem-solving	325	18.9
Form E	skill-oriented	807	14.6
Form F	quiz sections	1329	16.9
Form G	large lecture/textbook	<u>345</u>	<u>23.4</u>
Total		6985	21.2

An eighth form (Form H) has been developed to assess instruction in lab sections, but has not been in use long enough to generate sufficient data for inclusion in this report. A ninth form to evaluate clinical teaching is also excluded because it has been constructed following a different format.

All evaluation items are of the same general type, consisting of a statement about the course followed by a rating scale. For example, the first two items on most forms are: "The course as a whole was:" and "The

course content was:." Students are asked to rate each item on a six-point scale: Very Poor (0), Poor (1), Fair (2), Good (3), Very Good (4), and Excellent (5). Because student ratings of instruction tend to fall toward the top end of the scale, the extra response position (Excellent) was included to improve discrimination. The seven forms included in this report contain a total of 154 evaluation items, of which 73 are unique, and 81 are repeated across forms. (Items with slight differences in wording are not considered to be repetitions, e.g., "The course as a whole was:" and "The quiz section as a whole was:.")

Several statistics have been computed for each of the 154 items and are presented in Appendix A: the number of classes surveyed, the average class size, and the mean and standard deviation of the ratings for each item. Because class is the unit of analysis, the means presented are means of class means, and the standard deviations are standard deviations of class means. Also shown are reliability coefficients for each item, estimated for class sizes of 1, 10, 20, and 50.

Item Means

The average class means are shown in Table 2 for each form type. Averages are presented separately for items within each section, and for all items combined. As can be seen from the table, the average means tend to fall around or slightly below "Very Good" (4.0). Seminar/discussion courses (Form C) as a whole tend to be rated somewhat higher than other course types (mean=4.0), whereas, the lowest ratings were given to large lecture, problem-solving, quiz section, and large lecture/text book courses (Forms B, D, F and G; means=3.7). There were essentially no differences in the ratings given to items in different sections. The average across forms for Section I (general evaluation), and Section II (course type specific) is 3.8. The average for Section III (student information) items is only slightly lower, at 3.7.

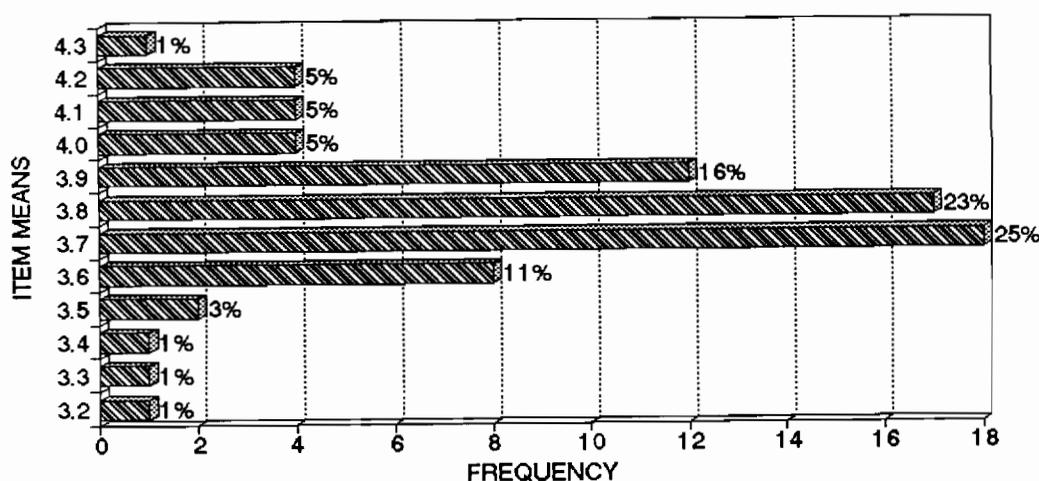
Of course, the means for individual classes show much greater variability, ranging from .9 to 5.0. Means tended to cluster toward the top end of the scale, with several classes topping out at the highest possible rating.

Table 2.
AVERAGE ITEM MEANS BY FORM
(0=Very Poor, 5=Excellent;
number of items = 154)

Section	Form	A	B	C	D	E	F	G
I (4 items)	Mean	3.9	3.8	4.0	3.8	4.1	3.7	3.6
	Range	1.1-5.0	.9-4.9	1.7-5.0	1.0-4.9	1.8-5.0	1.2-5.0	1.9-4.9
II (11 items)	Mean	4.0	3.8	4.1	3.7	3.9	3.7	3.7
	Range	2.0-5.0	1.8-5.0	1.7-5.0	1.5-4.8	2.1-5.0	1.2-5.0	2.0-4.9
III (7 items)	Mean	3.8	3.7	3.9	3.6	3.9	3.6	3.7
	Range	1.5-5.0	1.4-5.0	1.4-4.9	1.3-4.9	2.0-5.0	1.3-5.0	2.3-4.8
All Items	Mean	3.9	3.7	4.0	3.7	3.9	3.7	3.7
	Range	1.7-5.0	1.8-4.8	1.8-4.9	1.3-4.8	2.0-5.0	1.4-5.0	2.2-4.9

Figure 1 shows the relative frequency of item means when the overlap among forms has been removed. Items which are repeated across forms are represented by a single mean, resulting in 73 unique items. As can be seen from table, approximately half of the items have mean ratings of 3.7 or 3.8, consistent with the averages reported above for Sections I-III. The range of the means is from 3.2 to 4.3. Again, the averages reported are means of class means, so that the variability is relatively restricted.

Figure 1.
FREQUENCY DISTRIBUTION OF ITEM MEANS
 (0=Very Poor, 5=Excellent;
 number of items = 73)



Reliability Estimates

The inter-rater reliability of each of the 154 evaluation items was computed based on all classes surveyed during the 1989-90 academic year (autumn, 1989 through summer, 1990). These coefficients represent the level of agreement among students on the ratings of individual classes relative to mean differences across classes. Values range from 0 to 1, where 0.0 indicates that there is no agreement among students, and 1.0 indicates perfect agreement. The reliability coefficients are intraclass correlations,³ using classes as the unit of analysis, and were computed using the following formula:

$$r_1 = \frac{MS_B - MS_W}{MS_B + (k-1)MS_W}$$

where MS_B is the mean square between classes, MS_W is the mean square within classes, and k is the average class size.⁴

The above formula yields the reliability for a single rater, or student. As the number of students rating a class increases, the reliability of the mean rating of each item also increases. Coefficients can be computed for increasing class sizes using the Spearman-Brown formula:

$$r_k = \frac{k(r_1)}{(k-1)r_1 + 1}$$

where r_k is the reliability of a class with k students and r_1 is the reliability of a single rater. The reliability of each item for each form is found in Appendix A for class sizes of 1, 10, 20 and 50.

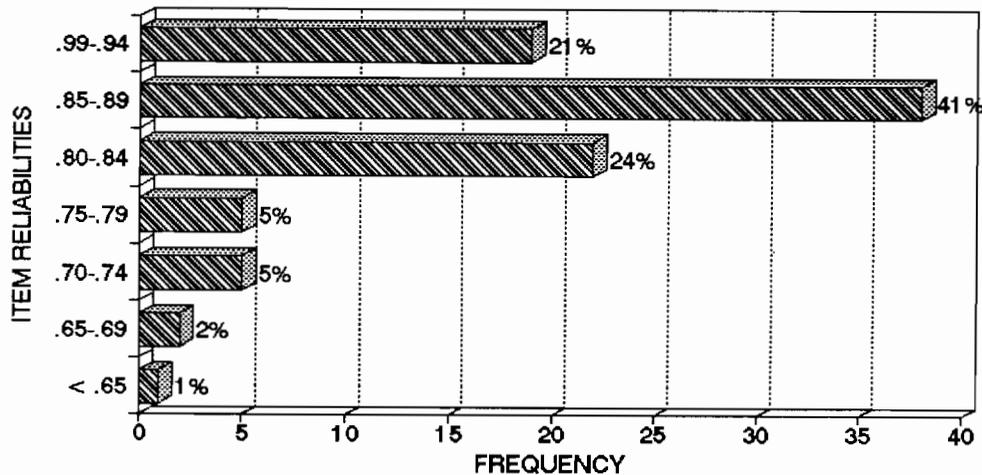
Table 3 shows the average reliability of items in each of the three sections on each form (Forms A-G), as well as the average reliability across all sections, for classes of 20 students. The average reliability of Section I (general evaluation) items ranges from .74 to .88 across all forms. For Section II (instructional diagnostic) the range is from .74 to .89, and for Section III (student information) it is from .81 to .89. The average reliability of all items combined ranges from .79 to .89 across forms.

Table 3.
AVERAGE ITEM RELIABILITIES BY FORM
(number of items = 154; class size = 20)

Section	Form	A	B	C	D	E	F	G
I (4 items)	Mean	.79	.78	.82	.86	.74	.88	.86
	Range	.72-.84	.71-.84	.74-.86	.84-.89	.62-.79	.86-.91	.82-.92
II (11 items)	Mean	.75	.79	.74	.88	.83	.89	.86
	Range	.42-.86	.53-.90	.46-.90	.76-.92	.31-.93	.84-.94	.80-.90
III (7 items)	Mean	.86	.81	.88	.89	.83	.89	.86
	Range	.78-.91	.78-.87	.76-.93	.84-.93	.63-.90	.86-.93	.83-.89
All Items	Mean	.79	.79	.80	.88	.81	.89	.86
	Range	.42-.91	.53-.90	.46-.93	.76-.93	.31-.93	.84-.94	.80-.92

The frequencies of the obtained reliabilities are shown in Figure 2. Repeated items are represented by a single average reliability, again reducing the 154 items to 73 unique items. As shown in the table, item reliabilities tend to be high; 88% of the items have reliabilities above .80, and 19% have reliabilities above .90.

Figure 2.
FREQUENCY DISTRIBUTION OF ITEM RELIABILITIES
(number of items = 73; class size = 20)



The lowest item reliability among unique items was .43 for "Student confidence in instructor's knowledge was:" (Forms A, B, C and E). The next lowest was .66 for "Clarity of instructor's voice was:" (Form A), and "Instructor's enthusiasm was:" (Forms A, B, C, D, and G). Mean ratings for these items were at the top end of the range of average means shown in Figure 1 (means = 4.3, 4.2, and 4.1, respectively). This suggests that a "ceiling" effect might be operating, in which the tendency to assign high ratings limits the variability of ratings and creates an upper limit on the reliability. A correlation was computed between mean ratings and observed reliabilities for the total 154 items, and was found to be -.55 (sig. < .001).

-
1. See the description contained in The University of Washington Instructional Assessment System, Office of Educational Assessment, University of Washington, 1990.
 2. Means and reliability estimates were previously presented in Gillmore, G.M., Statistical Analyses of the Data from the First Year of Use of the Student Ratings Forms of the University of Washington Instructional Assessment System (76-9), Office of Educational Assessment, University of Washington, November, 1975.
 3. The reliability coefficients can also be viewed as generalizability estimates with class as the object of measurement and raters as an infinite facet. See Kane, M.T., Gillmore, G.M., & Crooks, T.J. Student evaluations of teaching: The generalizability of class means. Journal of Educational Measurement, 1976, 13, 171-184.
 4. Ebel, R.L. Estimation of the reliability of ratings. Psychometrika, 1951, 16, 407-424.

Appendix A
ITEM RELIABILITIES BY CLASS SIZE

Appendix A
ITEM RELIABILITIES BY CLASS SIZE
(includes means - does not include form H)

	Item	No. of Classes Surveyed	Ave. Class Size	Mean	Std. Dev.	Class Size				
						1	10	20	50	
I. TO PROVIDE A GENERAL EVALUATION										
THE COURSE AS A WHOLE WAS:	A-I-1	2341	16.7	3.89	.56	.17	.68	.81	.91	
	B-I-1	1116	44.2	3.72	.55	.15	.64	.78	.90	
	C-I-1	718	13.0	4.02	.61	.20	.72	.84	.93	
	D-I-1	322	18.6	3.71	.58	.23	.75	.86	.94	
	E-I-1	806	14.5	4.01	.52	.14	.62	.77	.89	
	G-I-1	345	23.0	3.76	.59	.19	.70	.82	.92	
THE QUIZ SECTION AS A WHOLE WAS:	F-I-1	1329	16.6	3.64	.60	.28	.80	.88	.95	
THE COURSE CONTENT WAS:	A-I-2	2339	16.7	3.87	.51	.16	.65	.79	.90	
	B-I-2	1116	44.2	3.75	.47	.11	.56	.71	.86	
	C-I-2	717	13.0	3.98	.57	.22	.74	.85	.93	
	D-I-2	322	18.5	3.71	.55	.21	.72	.84	.93	
	E-I-2	805	14.4	3.95	.48	.14	.61	.76	.89	
THE CONTENT OF THE QUIZ SECTION WAS:	F-I-2	1328	16.6	3.59	.56	.26	.78	.88	.95	
THE INSTRUCTOR'S CONTRIBUTION TO THE COURSE WAS:	A-I-3	2341	16.7	4.09	.60	.11	.56	.72	.86	
	B-I-3	1112	44.2	3.90	.64	.14	.63	.77	.89	
	C-I-3	716	13.0	4.20	.63	.13	.59	.74	.88	
	D-I-3	321	18.6	3.87	.68	.21	.72	.84	.93	
	E-I-3	806	14.4	4.22	.58	.08	.45	.62	.81	
QUIZ SECTION INSTRUCTOR'S (Q.S.I.) CONTRIBUTION TO THE COURSE WAS:	F-I-3	1329	16.6	3.83	.63	.23	.75	.86	.94	
THE INSTRUCTOR'S EFFECTIVENESS IN TEACHING THE SUBJECT MATTER WAS:	A-I-4	2339	16.7	3.89	.66	.21	.72	.84	.93	
	B-I-4	1114	44.1	3.73	.69	.21	.73	.84	.93	
	C-I-4	711	13.0	4.03	.67	.24	.76	.86	.94	
	D-I-4	322	18.5	3.70	.72	.30	.81	.89	.95	
	E-I-4	806	14.4	4.06	.64	.16	.66	.79	.90	
THE Q.S.I.'S EFFECTIVENESS IN TEACHING THE SUBJECT MATTER WAS:	F-I-4	1328	16.6	3.66	.67	.33	.83	.91	.96	
THE TEXTBOOK OVERALL WAS:	G-I-2	328	23.1	3.16	.67	.36	.85	.92	.96	
THE INSTRUCTOR OVERALL WAS:	G-I-3	345	23.0	3.92	.65	.20	.71	.83	.93	

	Item	No. of Classes Surveyed	Ave. Class Size	Mean	Std. Dev.	Class Size			
						1	10	20	50
THE INSTRUCTOR'S CONTRIBUTION TO YOUR UNDERSTANDING OF CONCEPTS AND IDEAS WAS:	G-I-4	344	23.0	3.83	.67	.27	.78	.88	.95
II. TO PROVIDE DIAGNOSTIC FEEDBACK TO THE INSTRUCTOR									
COURSE ORGANIZATION WAS:	A-II-1	2339	16.6	3.77	.59	.24	.76	.86	.94
	B-II-1	1115	44.0	3.69	.55	.18	.68	.81	.92
	C-II-1	713	13.0	3.86	.60	.29	.80	.89	.95
	D-II-1	319	18.5	3.60	.62	.30	.81	.90	.96
	G-II-1	344	22.9	3.72	.63	.25	.76	.87	.94
CLARITY OF INSTRUCTOR'S VOICE WAS:	A-II-2	2336	16.6	4.17	.57	.90	.49	.66	.83
EXPLANATIONS BY INSTRUCTOR WERE:	A-II-3	2334	16.6	3.94	.59	.18	.68	.81	.92
	B-II-3	1113	43.9	3.75	.62	.19	.70	.82	.92
	D-II-3	321	18.4	3.67	.70	.31	.82	.90	.96
EXPLANATIONS BY QUIZ SECTION INSTRUCTOR (Q.S.I.) WERE:	F-II-1	1326	16.6	3.70	.62	.31	.82	.90	.96
INSTRUCTOR'S ABILITY TO PRESENT ALTERNATIVE EXPLANATIONS WHEN NEEDED WAS:	A-II-4	2327	16.5	3.88	.59	.23	.74	.85	.94
	B-II-4	1111	43.3	3.70	.60	.21	.72	.84	.93
	D-II-4	320	18.2	3.64	.72	.34	.84	.91	.96
INSTRUCTOR'S USE OF EXAMPLES AND ILLUSTRATIONS WAS:	A-II-5	2330	16.5	3.98	.56	.15	.64	.78	.90
	B-II-5	1113	43.8	3.88	.58	.13	.60	.75	.88
	D-II-5	319	18.3	3.74	.69	.28	.79	.88	.95
	G-II-5	342	22.8	3.84	.60	.22	.74	.85	.94
Q.S.I.'S USE OF EXAMPLES AND ILLUSTRATIONS WAS:	F-II-2	1326	16.5	3.71	.58	.28	.80	.89	.95
QUALITY OF QUESTIONS OR PROBLEMS RAISED BY INSTRUCTOR WAS:	A-II-6	2330	16.4	3.91	.53	.18	.68	.81	.91
	D-II-6	319	18.2	3.66	.63	.27	.79	.88	.95
QUALITY OF QUESTIONS OR PROBLEMS RAISED WAS:	C-II-6	712	12.9	4.06	.55	.20	.72	.84	.93
QUALITY OF QUESTIONS OR PROBLEMS RAISED BY Q.S.I. WAS:	F-II-3	1324	16.3	3.59	.57	.30	.81	.90	.96

	Item	No. of Classes Surveyed	Ave. Class Size	Mean	Std. Dev.	Class Size			
						1	10	20	50
STUDENT CONFIDENCE IN INSTRUCTOR'S KNOWLEDGE WAS:	A-II-7	2335	16.6	4.29	.51	.04	.27	.42	.65
	B-II-7	1113	43.9	4.18	.51	.05	.36	.53	.74
	C-II-7	710	13.0	4.38	.54	.04	.30	.46	.68
	E-II-7	803	14.3	4.36	.51	.02	.19	.31	.53
STUDENT CONFIDENCE IN Q.S.I.'S KNOWLEDGE WAS:	F-II-5	1328	16.5	3.87	.60	.21	.73	.84	.93
INSTRUCTOR'S ENTHUSIASM WAS:	A-II-8	2336	16.6	4.21	.57	.06	.39	.57	.76
	B-II-8	1114	43.8	4.00	.62	.11	.54	.70	.86
	C-II-8	714	13.0	4.33	.54	.04	.32	.48	.70
	D-II-8	320	18.4	3.95	.64	.14	.62	.76	.89
	G-II-8	343	22.8	4.04	.63	.16	.66	.80	.91
Q.S.I.'S ENTHUSIASM WAS:	F-II-4	1327	16.5	3.85	.69	.20	.72	.84	.93
ENCOURAGEMENT GIVEN STUDENTS TO EXPRESS THEMSELVES WAS:	A-II-9	2330	16.5	3.98	.59	.18	.68	.81	.92
	C-II-9	715	12.9	4.22	.54	.10	.52	.68	.84
	F-II-6	1326	16.3	3.68	.62	.32	.82	.90	.960
ANSWERS TO STUDENT QUESTIONS WERE:	A-II-10	2334	16.5	3.88	.56	.20	.72	.84	.93
	D-II-10	321	18.3	3.64	.66	.33	.83	.91	.96
	F-II-7	1323	16.5	3.63	.60	.32	.82	.90	.96
ANSWERS TO QUESTIONS FROM CLASS WERE:	G-II-10	343	22.5	3.81	.60	.22	.73	.85	.93
AVAILABILITY OF EXTRA HELP WHEN NEEDED WAS:	A-II-11	2297	15.8	3.90	.54	.21	.73	.84	.93
	B-II-11	1110	41.2	3.66	.54	.19	.70	.82	.92
	D-II-11	316	17.8	3.75	.64	.25	.77	.87	.94
	E-II-11	793	13.8	3.99	.55	.20	.72	.84	.93
	F-II-11	1314	15.7	3.76	.54	.24	.76	.87	.94
	G-III-1	340	21.8	3.72	.61	.29	.80	.89	.95
SEQUENTIAL PRESENTATION OF CONCEPTS WAS:	B-II-2	1114	43.7	3.72	.51	.16	.65	.79	.90
	D-II-2	318	18.4	3.66	.61	.26	.78	.88	.95
INSTRUCTOR'S ENHANCEMENT OF STUDENT INTEREST IN THE MATERIAL WAS:	B-II-6	1112	43.5	3.61	.68	.25	.77	.87	.94
CLARITY OF COURSE OBJECTIVES WAS:	B-II-9	1115	43.5	3.65	.54	.18	.69	.82	.92

	Item	No. of Classes Surveyed	Ave. Class Size	Mean	Std. Dev.	1	10	20	50
INTEREST LEVEL OF CLASS SESSIONS WAS:	B-II-10	1113	43.6	3.41	.68	.32	.82	.90	.96
	C-II-11	713	13.0	3.90	.67	.31	.82	.90	.96
INTEREST LEVEL OF QUIZ SECTIONS WAS:	F-II-8	1323	16.4	3.32	.68	.46	.89	.94	.98
INSTRUCTOR'S PREPARATION FOR CLASS WAS:	C-II-2	709	13.0	4.18	.58	.12	.58	.74	.87
INSTRUCTOR AS A DISCUSSION LEADER WAS:	C-II-3	713	13.0	4.08	.64	.19	.71	.83	.92
INSTRUCTOR'S CONTRIBUTION TO DISCUSSION WAS:	C-II-4	713	13.0	4.20	.59	.13	.61	.76	.89
CONDUCTIVENESS OF CLASS ATMOSPHERE TO STUDENT LEARNING WAS:	C-II-5	715	12.9	4.02	.60	.25	.77	.87	.94
INSTRUCTOR'S OPENNESS TO STUDENT VIEWS WAS:	C-II-10	710	13.0	4.22	.56	.11	.56	.72	.87
Q.S.I.'S OPENNESS TO STUDENT VIEWS WAS:	F-II-9	1326	16.2	3.84	.58	.24	.76	.86	.94
CONTRIBUTION OF ASSIGNMENTS TO UNDERSTANDING COURSE CONTENT WAS:	D-II-7	316	18.3	3.68	.57	.29	.80	.89	.95
INSTRUCTOR'S ABILITY TO DEAL WITH STUDENT DIFFICULTIES WAS: Q.S.I.'S ABILITY TO DEAL WITH STUDENT DIFFICULTIES WAS:	D-II-9	319	18.2	3.60	.68	.36	.85	.92	.97
	E-II-9	800	14.1	3.82	.64	.33	.83	.91	.96
	F-II-10	1320	16.1	3.57	.61	.36	.85	.92	.97
OPPORTUNITY FOR PRACTICING WHAT WAS LEARNED WAS:	E-II-1	801	14.4	3.88	.55	.23	.75	.86	.94
SEQUENTIAL DEVELOPMENT OF SKILLS WAS:	E-II-2	800	14.2	3.81	.51	.23	.75	.86	.94
EXPLANATIONS OF UNDERLYING RATIONALES FOR NEW TECHNIQUES OR SKILLS WERE:	E-II-3	792	14.1	3.79	.58	.30	.81	.89	.96

	Item	No. of Classes Surveyed	Ave. Class Size	Mean	Std. Dev.	1	10	20	50
EXPLANATIONS BY INSTRUCTOR WERE:	G-II-3	343	22.9	3.84	.61	.23	.75	.86	.94
DEMONSTRATIONS OF EXPECTED SKILLS WERE:	E-II-4	795	14.1	3.87	.58	.25	.77	.87	.94
INSTRUCTOR'S CONFIDENCE IN STUDENTS' ABILITY WAS:	E-II-5	799	14.1	3.93	.56	.21	.72	.84	.93
RECOGNITION OF STUDENT PROGRESS BY INSTRUCTOR WAS:	E-II-6	800	14.0	3.77	.60	.31	.82	.90	.96
FREEDOM ALLOWED STUDENTS TO DEVELOP OWN SKILLS AND IDEAS WAS:	E-II-8	795	14.0	3.88	.56	.28	.79	.88	.95
TAILORING OF INSTRUCTION TO VARYING STUDENT SKILL LEVELS WAS:	E-II-10	797	13.9	3.65	.62	.40	.87	.93	.97
OPPORTUNITY TO ASK QUESTIONS WAS:	G-II-2	344	22.8	4.03	.57	.18	.69	.82	.92
INSTRUCTOR'S CONTRIBUTION TO YOUR ABILITY TO SOLVE PROBLEMS WAS:	G-II-4	341	22.6	3.67	.64	.32	.82	.90	.96
LENGTH AND DIFFICULTY OF HOMEWORK ASSIGNMENTS WERE:	G-II-6	340	22.6	3.46	.59	.26	.78	.88	.95
CONTRIBUTION OF EXAMINATIONS TO UNDERSTANDING COURSE CONTENT WAS:	G-II-7	314	23.0	3.53	.56	.26	.78	.87	.94
INSTRUCTOR'S CONCERN FOR WELFARE OF STUDENTS WAS:	G-II-9	340	22.4	3.81	.64	.27	.79	.88	.95

	Item	No. of	Ave.	Mean	Std. Dev.	Class Size			
		Classes Surveyed	Class Size			1	10	20	50
EVALUATIVE AND GRADING TECHNIQUES (TESTS, PAPERS, PROJECTS, ETC.) WERE:	A-III-5	2213	16.4	3.64	.61	.34	.84	.91	.96
	B-III-5	1113	43.2	3.44	.56	.26	.77	.87	.94
	C-III-5	661	12.8	3.75	.63	.41	.88	.93	.97
	D-III-5	317	17.9	3.46	.62	.38	.86	.93	.97
	E-III-5	773	14.2	3.79	.59	.31	.82	.90	.96
REASONABLENESS OF ASSIGNED WORK WAS:	A-III-6	2276	16.5	3.74	.57	.26	.78	.88	.95
	B-III-6	1114	43.5	3.62	.51	.18	.69	.82	.92
	C-III-6	705	12.9	3.84	.60	.31	.82	.90	.96
	D-III-6	312	18.2	3.52	.62	.37	.85	.92	.97
	E-III-6	794	14.3	3.90	.52	.23	.75	.86	.94
	G-III-6	340	22.7	3.64	.58	.25	.76	.87	.94
REASONABLENESS OF ASSIGNED WORK FOR QUIZ SECTION WAS:	F-III-6	1317	16.0	3.76	.50	.30	.75	.86	.94
CLARITY OF STUDENT RESPONSIBILITIES AND REQUIREMENTS WAS:	A-III-7	2288	16.5	3.81	.59	.24	.76	.87	.94
	B-III-7	1115	43.5	3.70	.52	.16	.65	.79	.90
	C-III-7	704	13.0	3.90	.62	.32	.82	.90	.96
	D-III-7	322	18.2	3.62	.60	.30	.81	.90	.96
	E-III-7	797	14.3	3.94	.56	.24	.75	.86	.94
	F-III-7	1320	16.2	3.71	.51	.26	.78	.87	.94
COORDINATION BETWEEN LECTURES AND QUIZ SECTIONS WAS:	F-III-5	1322	16.4	3.60	.59	.35	.84	.92	.96
RELATIONSHIP OF EXAMINATIONS TO MATERIAL EMPHASIZED IN COURSE WAS:	G-III-7	315	23.2	3.78	.58	.24	.76	.86	.94

	Item	No. of Classes Surveyed	Ave. Class Size	Mean	Std. Dev.	1	10	20	50
RELATIONSHIP BETWEEN LECTURES AND TEXT WAS:	G-II-11	325	22.8	3.67	.66	.30	.81	.89	.96
III. TO PROVIDE INFORMATION ABOUT THE COURSE TO OTHER STUDENTS									
USE OF CLASS TIME WAS:	A-III-1	2333	16.6	3.72	.58	.25	.77	.87	.94
	B-III-1	1115	43.9	3.67	.56	.18	.69	.82	.92
	C-III-1	710	13.0	3.73	.64	.36	.85	.92	.97
	D-III-1	321	18.4	3.57	.61	.33	.83	.91	.96
	E-III-1	805	14.3	3.88	.59	.26	.78	.87	.94
USE OF QUIZ SECTION TIME WAS:	F-III-1	1324	16.5	3.55	.57	.33	.83	.91	.96
INSTRUCTOR'S INTEREST IN WHETHER STUDENTS LEARNED WAS:	A-III-2	2334	16.5	4.03	.55	.15	.64	.78	.90
	B-III-2	1114	43.6	3.78	.60	.18	.69	.82	.92
	C-III-2	712	13.0	4.18	.52	.14	.61	.76	.89
	D-III-2	322	18.4	3.88	.60	.20	.72	.84	.93
	E-III-2	803	14.3	4.20	.53	.08	.46	.63	.81
	G-III-2	341	22.6	3.87	.59	.23	.75	.86	.94
Q.S.I.'S INTEREST IN WHETHER STUDENTS LEARNED WAS:	F-III-2	1326	16.5	3.82	.58	.24	.75	.86	.94
AMOUNT YOU LEARNED IN THE COURSE WAS:	A-III-3	2334	16.6	3.77	.55	.25	.77	.87	.94
	B-III-3	1116	43.8	3.66	.53	.17	.67	.80	.91
	C-III-3	715	12.9	3.88	.62	.34	.84	.91	.96
	D-III-3	322	18.4	3.65	.57	.28	.80	.89	.95
	E-III-3	806	14.3	3.90	.50	.22	.73	.85	.93
	G-III-3	342	22.8	3.69	.56	.23	.75	.86	.94
AMOUNT YOU LEARNED IN THE QUIZ SECTIONS WAS:	F-III-3	1325	16.5	3.43	.63	.41	.87	.93	.97
RELEVANCE AND USEFULNESS OF COURSE CONTENT ARE:	A-III-4	2331	16.5	3.93	.53	.18	.68	.81	.91
	B-III-4	1115	43.7	3.78	.51	.15	.64	.78	.90
	C-III-4	713	12.9	4.06	.58	.20	.71	.83	.92
	D-III-4	322	18.3	3.83	.58	.23	.75	.86	.94
	E-III-4	801	14.3	3.99	.51	.18	.69	.82	.92
	G-III-4	341	22.7	3.76	.56	.20	.71	.83	.92
RELEVANCE AND USEFULNESS OF QUIZ SECTION CONTENT ARE:	F-III-4	1325	16.4	3.69	.58	.30	.81	.89	.96
RELEVANCE AND USEFULNESS OF HOMEWORK ASSIGNMENTS WERE:	G-III-5	339	22.6	3.71	.52	.20	.71	.83	.92