

Click on any of the red boxes for explanatory information

DOE, JANE ASEN-2200-001-01 VEH DESIGN FOR ENGINEERS
 Dept: AEROSPACE ENGIN :Forms requested: 83 Returned: 58 College: Engineering

Click here for information on A&S division, if applicable

Comparison information for department, college/division, and campus is for your instructor group and the course level ONLY, using Fall 2006, Spring 2007, and Fall 2007 data.

Group: TTT: Tenured and tenure-track Level: Lower division
 Sections in comparisons: Dept: 10 College/Division: 73 Campus : 726

Profile of your avg. ratings (with 95% confidence bands)

Item No.	Your rating		Diff from			Percentile in			Number of responses						Profile of your avg. ratings (with 95% confidence bands)						Averages in						
	Avg.	Median	Dept	Col	Campus	Dept	Col	Campus	1	2	3	4	5	6	BL	SD	1	2	3	4	5	6	Dept	Col	Campus		
2 Personal interest before enrolled	5.1	5.0	+++	+++	++	99	97	87	1	1	1	7	23	21	4	1.0									4.3	4.1	4.1
3 Instr effectiveness encouraging interest	4.2	5.0	0	0	-	39	34	24	4	4	5	13	20	8	4	1.4									4.4	4.4	4.7
4 Instr availability for assistance	4.4	5.0	-	-	--	39	28	14	1	4	8	10	21	9	5	1.3									4.7	4.8	4.9
5 Intellectual challenge of course	5.0	5.0	0	+	+	50	78	76	0	0	3	8	27	16	4	0.8									4.4	4.4	4.6
6 How much you learned in course	4.9	5.0	0	+	0	50	69	65	0	2	5	7	21	19	4	1.1									4.6	4.5	4.7
7 Course overall	4.5	5.0	0	0	0	40	47	39	3	1	5	12	23	10	4	1.3									4.5	4.5	4.6
8 Instructor overall	4.4	5.0	0	0	-	39	31	19	4	4	1	12	23	10	4	1.4									4.7	4.7	5.0
9 Instr respect/professional treatment	5.8	6.0	0	0	0	59	41	40	0	1	0	1	5	43	8	0.7									5.7	5.7	5.8
1 Hrs/week spent on course (incl class)	13-15	13-15	0	++	+++	29	89	97	0	3	5	13	17	11	9	1.1									10-12	7-9	7-9

Hrs/week scale: 0-3=1, 4-6=2, 7-9=3, 10-12=4, 13-15=5, 16+=6

Optional questions

Optional questions	Avg. rating	Median	SD	Lowest						Highest						BL	NA										
				1	2	3	4	5	6	1	2	3	4	5	6												
029 Students assumed responsibility for their learning	5.4	5.5	0.7	0	0	0	6	22	28	2	0																
031 Students learned by participation	4.6	5.0	1.2	1	1	10	9	24	11	2	0																
063 Course associated new with familiar content	4.7	5.0	1.2	0	3	7	10	21	14	2	1																
065 Course had appropriate prerequisites in catalogue	5.1	5.0	1.0	1	0	3	4	27	19	3	1																
069 Course objectives were achieved	4.8	5.0	1.2	1	4	3	5	28	15	2	0																
083 Text was relevant to teaching procedure	4.8	5.0	1.3	1	5	4	5	21	20	2	0																
088 Text for this course was: 1=too easy, 2=easy, 3=ok, 4=advanced, 5	3.5	3.0	0.7	0	2	27	22	5	0	2	0																
093 Lectures facilitated learning	4.2	5.0	1.4	3	5	6	13	21	7	2	1																
103 Lab work was worthwhile	4.5	5.0	1.4	4	2	5	6	27	12	2	0																
168 Grading criteria were well explained	4.2	4.5	1.4	4	4	7	13	18	10	2	0																
B91 This class improved my understanding of the engineering professio	4.8	5.0	1.3	2	4	1	10	19	19	3	0																
B92 My confidence to succeed as an engineering student was enhanced.	4.5	5.0	1.4	2	5	3	12	20	14	2	0																
B93 The instructor's preparation for class was...	4.9	5.0	1.2	2	1	3	10	21	19	2	0																
B94 This course prepared me for a career in engineering.	4.6	5.0	1.4	4	0	6	5	27	12	4	0																

For more info, see below and www.colorado.edu/fcq/stats

Standard item correlations

	2	3	4	5	6	7	8	9
1	.2	.1	.0	.1	.1	.1	.0	-.1
2		.4	.3	.3	.5	.5	.4	-.1
3			.6	.4	.8	.8	.9	.2
4				.3	.6	.6	.6	.1
5					.5	.3	.3	.1
6						.8	.7	.0
7							.8	.1
8								.3

Correlation coefficients range from -1.0 to 1.0, and indicate the direction and strength of the relationship between two items.

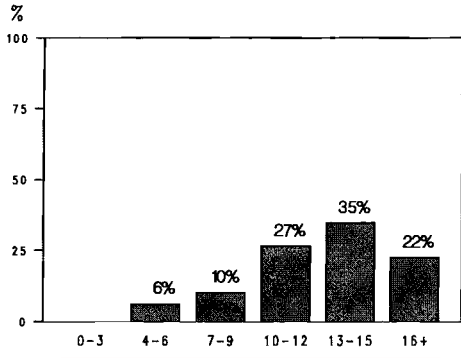
Occasionally some (but not all) correlations will be missing. This can happen if all students give the same rating on a particular item.

Median is the middle score when all ratings are rank-ordered. SD (standard deviation) is the DISagreement among raters. Difference from the group avg. for Dept, Col/Div, and Campus ranges from --- to +++. 0 = negligible difference. Percentile = percentile of your average rating within a particular group: campus, college/division, department. ** Percentiles not reported for groups with under 10 sections. A confidence band indicates an interval within which we are 95% confident that the 'true' value of the average lies. See www.colorado.edu/fcq for details on all statistics, and for results from the last 7 years. Blank (BL) and non-applicable (NA) responses are tallied but excluded from averages.

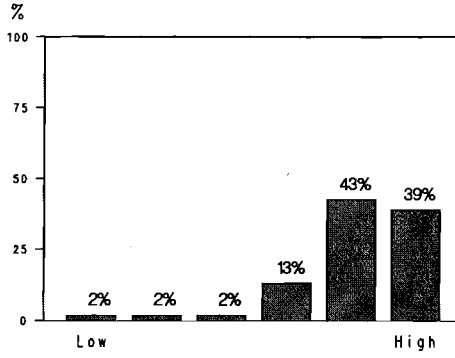
SEE GRAPHS ON REVERSE SIDE

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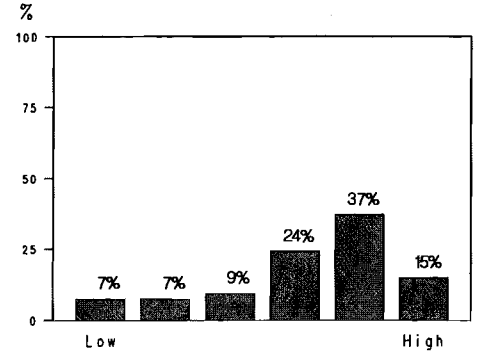
FCQ Results, Spring 2008, ASEN-2200-001 -- DOE, JANE



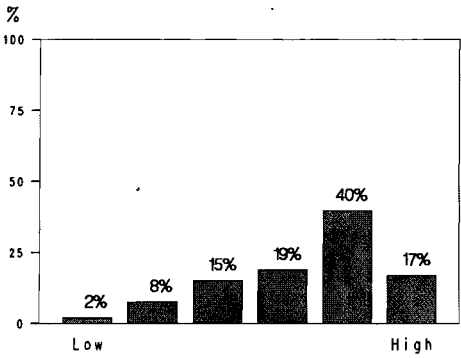
1: Hrs/Wk Spent on Course (Including Class)



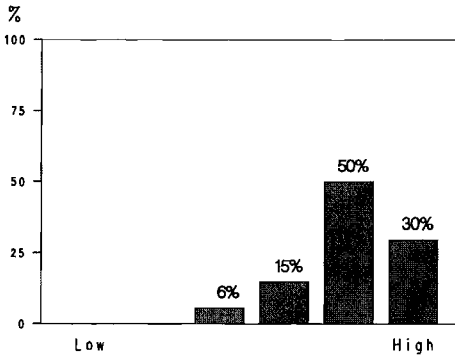
2: Prior Interest



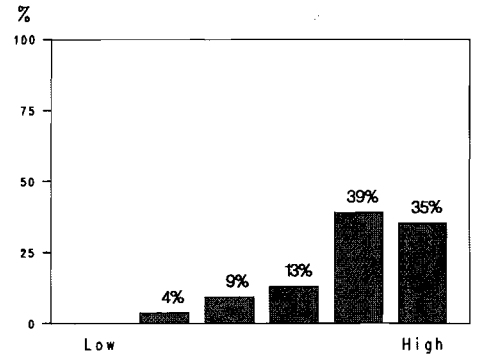
3: Instr Encourage Interest



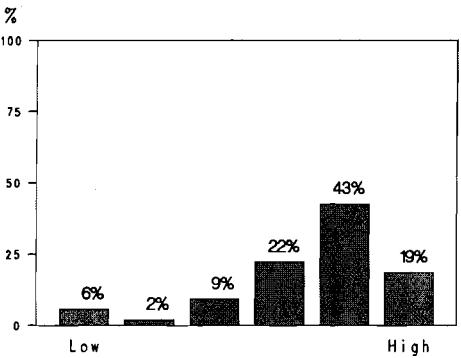
4: Instructor Avail for Ass't



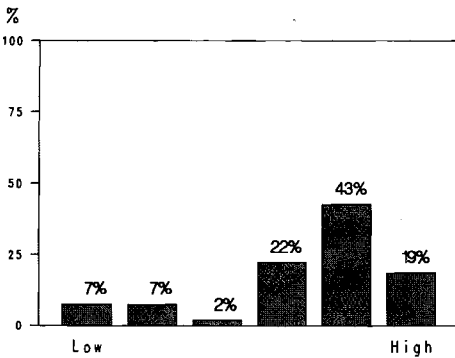
5: Intellectual Challenge



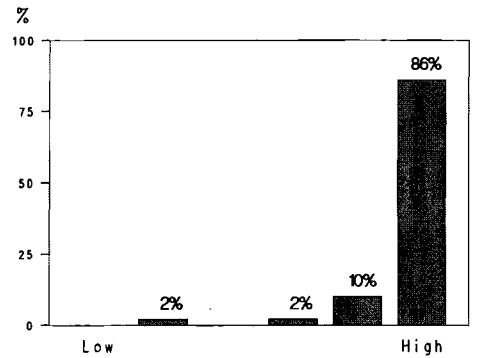
6: How Much Learned



7: Course Overall

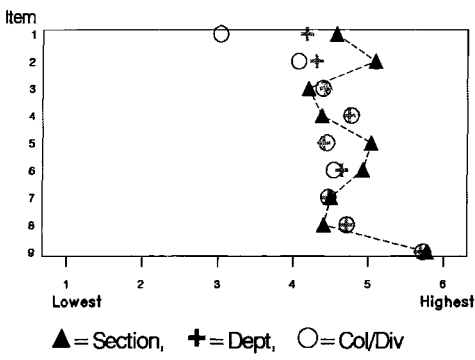


8: Instructor Overall



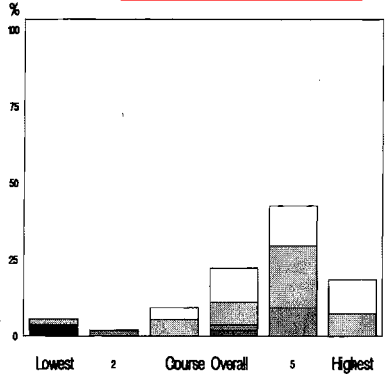
9: Instr Respect for Stdnts

Average Ratings Comparisons



Relationship of "Course Overall" ratings to

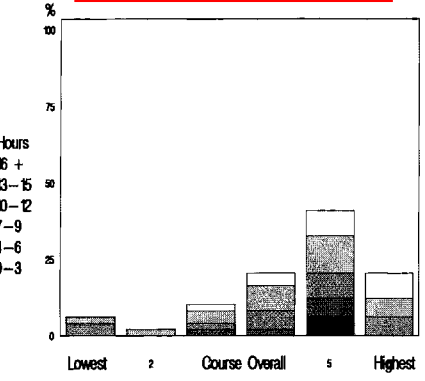
Personal Interest before Enrolled



Hrs/Wk Spent on Course (Including Class)

Key

- 6 16+
- 5 13-15
- 4 10-12
- 3 7-9
- 2 4-6
- 1 0-3



Forms Requested and Returned

On the front page of the Section Report, we report the number of FCQ forms requested and returned:

The number of forms requested usually is the number of students enrolled in the section on the day the FCQ office downloads course data from the University of Colorado student information system (CU-SIS) for subsequent FCQ processing. In fall and spring terms, the FCQ office downloads course data several days after census for the CU Boulder, CU Denver downtown, or UCCS campus – whichever one has the latest start date that semester. In summer terms, the FCQ office downloads course data at several different time points, depending on the campus and session. The FCQ office does not adjust the number of forms requested to reflect any students who withdraw from a course after the FCQ office downloaded course data from CU-SIS. Also, please note that any student who withdraws from a class before online FCQ administration begins cannot submit an online FCQ for the class.

The number of forms returned is the number of forms with any responses. The return rate is the number of forms returned divided by the number of forms requested.

For the Boulder campus, the return rate (also called "response rate") for paper administration of FCQs has varied little over 20 fall terms (from fall 1991 to fall 2010), ranging from 78% to 82%. Since its inception on the Boulder campus in 2003, online FCQ administration has yielded a lower return rate than that of paper administration, ranging from 45% to 67%.

A&S Division

"A&S division" refers to the three divisions within the College of Arts and Sciences: Arts and Humanities, Arts and Sciences, and Social Sciences. "A&S Other" is a category used for courses offered, for example, through ATLAS, the Farrand Residential Academic Program, and the President's Leadership Program.

Instructor Groups

- TTT - tenured and tenure-track
- OTH - other primary instructors, including GPTI, adjunct, visiting, honoraria, etc.
- TA - teaching assistants

Course Level

Course level refers to either lower division (courses numbered from 1000-2999), upper division (3000-4999), or graduate-level (5000-8999) courses. *All comparison information on the section report is for your instructor group and course level only.* For example, if you are a tenured/tenure-track instructor and your section report pertains to a lower division course, the comparison results shown on your section report will be based only on data from lower-division courses taught by tenured/tenure-track instructors.

Sections in Comparisons

The "sections in comparisons" information indicates the number of sections in your [instructor group](#) and [course level](#) in, respectively, your department, college/[A&S division](#), and campus. Section reports show no statistics for groups TTT, OTH, and TA combined.

Comparison data used for computing department, college/division, and campus statistics are from several previous terms. For example, spring 2014 section reports provide statistics based on combined data from six terms: spring 2011, fall 2011, spring 2012, fall 2012, spring 2013 and fall 2013.

When the number of sections for the department and college are the same, this means the 'department' is the same as the 'college', e.g., College of Music or School of Law.

Average and Median

Average (Avg.) rating: The section average is the arithmetic mean of all ratings on one item. Ratings that are blank are not counted in computing the average. For example, if on the "course overall" item, 9 students gave ratings of 6, 4, 4, 5, 5, 4, 3, 6, and 5, the average would be computed as:

$$\frac{6 + 4 + 4 + 5 + 5 + 4 + 3 + 6 + 5}{9} = 4.7$$

The average can be misleading when there are many responses in the 5-6 range and many in the 1-2 range, but few in the middle (see "[standard deviation](#)").

Because the FCQ scale is restricted to 1-6, the average is usually very close to the median, another measure of the "typical" response. For an odd number of ratings, the median is the midpoint of those ratings when they are ranked from low to high. For example, the nine ratings above ranked from low to high are: 3, 4, 4, 4, [5], 5, 5, 6, 6. The middle rating, 5, is the median. For an even number of ratings, the computation of the median is somewhat different, but the idea is the same: The median is the midpoint of the distribution of ratings.

For Item 1 (hours per week spent on course), averages and medians are computed by first transforming the hours intervals shown on the FCQ form (e.g., "0-3," "4-6," etc.) to numbers on the 1-6 FCQ scale. For example, if a student marks the bubble below the response alternative of "7-9" hours per week, that interval is transformed to a value of 3 for computational purposes. Then, all transformed values are averaged, as in the example shown above. The result is rounded to the nearest whole number, then transformed back to an interval for reporting purposes. For example, an average of 4.7 (on the 1-6 FCQ scale) would be rounded to 5 and reported as an average of "13-15" hours per week.

Difference from...

Difference from Department, College/Division, and Campus

The difference takes on the values ---, --, -, zero, +, ++, +++ and indicates the magnitude of the difference of your section average from the group* average, from very much lower to very much higher.

We print + or - when the section average is between .5 and 1 [standard deviations](#) (SDs) from the group average, ++ or -- when the difference is 1 to 1.5 SDs, and +++ or --- when the difference is 1.5 SDs or more. A zero means that the difference is less than .5 SD. We do not report differences at all for groups with fewer than 10 sections.

Based on data from the pre-fall 2006 FCQ, we know that at most about 13% of all sections in a group will have a +++ or --- on a given item; an additional 18% or so will have a ++ or --, and approximately another 30% will have a + or a -. The remaining sections will have a zero reported for the difference, indicating that the difference between section and group means is negligible. NOTE: If the average rating for a group is very high, it's possible that no sections will differ positively from the average enough to have a +, ++, or +++ for that item.

Differences versus percentiles

Sections with one, two, or three pluses or minuses in the differences columns will almost always have [percentiles](#) between 70-99 or 1-30, respectively. However, the converse is NOT true. Because of the way in which percentiles are determined, some sections inevitably will have either very low or very high percentiles, whereas their averages will not necessarily differ significantly from the group average.

Data used for computing department, college/division, and campus differences are from several previous terms. For example, spring 2014 section reports provide differences based on combined data from six terms: spring 2011, fall 2011, spring 2012, fall 2012, spring 2013, and fall 2013.

* "Group" refers here to the evaluated instructor's department/instructor group, college or A&S division/instructor group, or campus/instructor group.

Percentiles

Percentile in Department, College/Division, and Campus: This is the percentage of sections in the group* with average ratings lower than that of the section under consideration. For the sample section report, e.g., the score of 87 in the "Campus" column for Item 2 means that 87% of all lower-division course sections taught by this instructor group had lower ratings.

We do not report percentiles at all for groups with fewer than 10 sections.

Data used for computing department, college/division, and campus percentiles are from several previous terms. For example, fall 2008 section reports provide percentiles based on combined data from six terms: spring 2011, fall 2011, spring 2012, fall 2012, spring 2013, and fall 2013.

[Differences](#) versus percentiles: Sections with one, two, or three pluses or minuses in the differences columns will almost always have percentiles between 70-99 or 1-30, respectively. However, the converse is NOT true. Because of the way in which percentiles are determined, some sections inevitably will have either very low or very high percentiles, whereas their averages will not necessarily differ significantly from the group average.

**"Group" refers here to the evaluated instructor's department/instructor group, college or A&S division/instructor group, or campus/instructor group.

Standard Deviation

The standard deviation (SD) is an index of agreement or disagreement among student raters. The higher the SD, the more the raters disagreed with one another. If all raters agreed exactly (e.g., 100% answered "4" on a particular item), then the SD would be zero.

Profile of Average Ratings

The profile of average ratings helps you quickly determine which items have the highest and lowest average ratings. The asterisks in the profile denote averages for each of the nine items. The farther to the right the asterisks appear, the higher the ratings. These averages are a graphical representation of the averages shown in the "[Avg. Rating](#)" column.

Each average rating in the profile is accompanied by a 95% [confidence band](#), which provides information about the "true" value of the average.

Confidence Bands

The [profile of average ratings](#) displays a 95% confidence band around each average rating. This band is denoted by dashes around the average (e.g., --*--). One way to think about a confidence band is that it represents an interval within which we are 95% confident that the true value of a section average lies. Larger sections and those with high agreement among raters tend to have smaller bands.

Confidence bands are, in part, a function of the [standard deviations](#). When the standard deviation for a particular item is zero, a confidence band will not be displayed for that item.

Averages in Department, College/Division, and Campus

These averages are computed within [instructor group](#) and [course level](#). For example, if you are a tenured or tenure-track instructor and you are reviewing a report for one of your lower-division courses, then the department, college/division, and campus averages on your report are computed using only data from tenured/tenure-track instructors teaching lower-division courses.

The department, college/[A&S division](#), and campus averages are computed by averaging the average ratings from individual sections. For example, if all tenured and tenure-track faculty in a department teach a combined total of 14 lower-division sections, then the average (over FCQ forms) for each individual section is first computed. Then, the 14 section averages themselves are averaged to yield the department average. Large and small sections contribute equally to the average.

Data used for computing department, college/division, and campus averages are from several previous terms. For example, fall 2008 section reports provide averages based on combined data from four terms: fall 2006, spring 2007, fall 2007, and spring 2008.

Correlations

Correlations describe the strength and direction of the relationship between pairs of the nine standard FCQ items, and range from -1.0 to 1.0. A correlation of +1.0 reflects a perfect positive (or direct) relationship. A correlation of -1.0 reflects a perfect negative (or inverse) relationship. A correlation of 0 indicates that there is no relationship at all between two FCQ items.

For example, we might expect that a student's personal interest in the course material before enrolling would be directly related to his or her overall opinion of the course. If high ratings for personal interest are accompanied by high ratings for overall course opinion, then the correlation will be positive. A positive correlation will also result from low ratings for personal interest and low ratings for overall course opinion. On the other hand, if high ratings for personal interest are accompanied by low ratings for overall course opinion, or vice versa, then the correlation will be negative.

In the *sample* section report, the correlation between Item 3 (rating of instructor's effectiveness in encouraging interest) and Item 7 (course overall rating) is large (.8). In contrast, the correlation between Item 3 and Item 1 (hours per week spent on course) is small (.1), suggesting that there is a very weak relationship between these items.

The correlations shown on the section report are based on data from within the section. They therefore reflect relationships among FCQ items within that section only. Correlations are reported (and printed on the section report) only if all nine standard items have at least 10 responses each.

In some instances, correlation coefficients will be missing, even when there are sufficient numbers of responses. This can happen if all students give the same rating on a particular item. This will result in a standard deviation of zero, which in turn prevents a correlation coefficient from being computed.

Missing correlations can also result if one item has nearly all identical ratings and another item has some missing values. For example, consider the following 13 pairs of ratings for Items 1 and 9:

Item 1	Item 9
3	6
2	6
1	6
Blank	6
Blank	6
3	6
2	6
Blank	5
3	6
3	6
3	6
1	6
2	6

When computing a correlation for these two items, blank responses, shown by the highlighting, are not considered. Therefore, the 10 remaining responses to Item 9 are considered all the same (6), and a correlation for Items 1 and 9 is not computed.

Percentage Distribution Graphs

The first nine graphs on this side of the section report display distributions of ratings for the section itself. The bars in these graphs show the percentage of students in the section who gave a particular rating on each item. For example, the second graph (labeled "2: Prior Interest") shows the distribution of ratings, from low to high, for the item about prior interest in the material before course enrollment. The first bar in this graph shows the percentage of students who gave a rating of "1" for prior interest, the second bar shows the percentage of students who gave a rating of "2," and so forth. These graphs allow you to see quickly how the ratings for each item are distributed over the FCQ score scale.

Note that the FCQ items for UC Denver differ from those in this example, which are based on the items on the Boulder and Colorado Springs FCQ forms.

Average Ratings Comparisons

The graph labeled "Average Ratings Comparisons" shows how average ratings for your section on each of the nine items compare to average ratings within your department and within your college or A&S division.

- The average ratings for your section are denoted by black triangles.
- The line connecting these is your profile of average ratings.
- Average ratings for your department and college/A&S division are denoted by plus signs and circles, respectively.

By focusing on your profile, you can quickly determine whether the average ratings for your section are above, about the same, or below the average ratings within your department and college or division.

Relationship of “Course Overall” Ratings to...

These two graphs, which are printed for the Boulder and Colorado Springs campuses only, illustrate selected correlations reported on the other side of the Section Report. They depict relationships between the overall course rating (Item 7) and two other items: personal interest before enrolling in the course (Item 2) and hours per week spent on the course (Item 1). Lower prior interest and lower hours per week are denoted with dark-colored bars; higher ratings/hours with light-colored bars. In the *sample* section report graph, the 43% of students who rated the course "5" reported hours per week spent on the course ranging from 0-3 (very dark) to 16+ (very light). In other words, some proportion of students reporting few hours spent per week gave high ratings to the course overall.

It is important to realize that these graphs are based on data for the section only and therefore depict only within-section relationships among these items.