

**Public Speaking Course Assessment  
Fall 2005  
Committee Report**

Assessment Committee Members:

Ken Albone

Lorin Basden Arnold (Chair)

Harriet Benavidez

Maria Simone

### The Assessment Plan

In the General Education Assessment taskforce report from 2003, the Department of Communication Studies indicated that, as part of the communication bank, our public speaking course have the following three outcome goals:

- Students will develop an understanding of spoken and written communication as a complex, multi-step processes that require rhetorical choices, including purpose, message, and audience.
- Students will demonstrate the ability to write and speak effectively in a variety of discursive and persuasive genres.
- Students will demonstrate the ability to research, evaluate, and incorporate source material into written and spoken communication.

As such, with attention to the unique difficulties of assessing the public speaking process, the Department of Communication Studies created an assessment plan that involves the collection of student speech outlines as well as a pen and paper exam. The outline collection process allows the department to assess students' knowledge about the speech creation process and their ability to exhibit that knowledge while preparing for a speech event. The exam provides assessment of students' understanding of the theory and processes associated with sound public address.

In using portfolios, the Department is able to get a sense of the speeches that were produced by students in the situated environment of the classroom, albeit without seeing the actual speech. Outline assessment also indicates the importance of sound rhetorical choices, rather than theatrical delivery. Additionally, the portfolios allow for confidentiality in the assessment process, which protects student rights and provides greater reliability for assessment.

The student examination provides the Department with a method of assessing the general concepts of public speaking that may not be reflected in the outlines and provides for consideration of events that are not classroom based.

Both of these methods of assessment also provide an opportunity for the department to engage in discussion about course content and provide information about supplementations and changes that may be necessary to meet the goals of the public speaking program.

In assessing student outlines through the portfolio, the Department looks for speaking outlines that reflect three primary standards:

- Clearly reflect the students' ability to produce messages that are suited to a specific audience.
- Demonstrate an ability to produce speeches planned for a variety of communicative purposes.
- Indicate the students' ability to plan speeches that are appropriate for the college level.

To further allow for refinement of an evaluation procedure, ten items that could be assessed in student speeches were developed.

- Planned speeches demonstrate a clear awareness and adaptation to the specific audience.
- Planned speeches are appropriate to the demands of the situation.
- Planned speeches indicate a clear attention to general and specific purpose of the speaking event.
- Students show attention to speaker credibility issues.
- Speech outlines present clear thesis statements and main points.
- Speech outlines exhibit a clear and logical sense of organization.
- Planned speeches indicate student ability to support thesis through development of main and sub-points.
- Planned speeches show efficient and effective use of supporting material (statistics, testimony, narratives).
- Planned speeches show evidence of efficient use of logical and emotional appeals.
- Planned speeches exhibit students' understanding of language skills as applied to speaking events.

Because some of the criteria require more than one item to be fully assessed, the portfolio evaluation form consists of 19 items that reflect the ten criteria noted above. Each of the items is assessed on a five-point scale (from unacceptable to excellent) for each portfolio.

In assessing student responses to testing, the Department looks for responses that:

- Indicate students' understanding of public speaking principles related to the speech creation process.
- Reflect students' ability to produce effective messages for a variety of audiences, purposes, and situations.
- Demonstrate the students' ability to evaluate and assess planned speeches.

The written examination for public speaking assessment is a multi-part test composed of open-ended questions that assess students' awareness of six public speaking concepts.

The test requires students to answer questions related to

- The basic general purposes for public speeches.
- The importance of audience centeredness and the steps involved in audience analysis.
- The various organizational structures and patterns employed in speaking.
- The steps involved in gathering, assessing, and using source material in ethical and effective manners.
- The various types of reasoning and emotional appeals commonly used in public speaking and the reasoning fallacies that can derail effective logic.
- The delivery types, skills, and strategies associated with good public speaking.

Twelve questions were developed in order to address these basic issues. These questions allow for assessment of student's understanding of the six public speaking concepts discussed previously, as well as their ability to apply these concepts to a speech artifact.

The Assessment Process, Fall 2005

In the fall semester of 2005, the Department of Communication Studies conducted an assessment of the Public Speaking program. Both portfolio and exam assessments were conducted.

For the portfolio assessment, 111 students were selected via a systematic random sample from the population enrolled in public speaking at that time (792 total population). Selected students were notified via their instructors and asked to submit their speech outlines for the two research speeches (informative and persuasive) to the assessment committee, with identifying information removed, at the end of the semester. 54 students returned the portfolios at the end of the semester. This 49% response rate reflects factors such as student withdrawal from the course and possible low motivation on the part of students to participate in a voluntary assessment process.

For the student examination, 4 sections of the course were randomly selected to receive the exam. A total of 81 students completed the exam.

Following the collection of the examinations and portfolios, the assessment committee began evaluation of the results. 3 members of the assessment committee evaluated the portfolios, assessing each of the 19 items on a scale from unacceptable to excellent for each portfolio. Average evaluations on each item were then established for each portfolio. Over the total of 1026 items, there were only 23 (2%) items where scores diverged by more than 1 point, suggesting a high degree of agreement between evaluators. The examination was graded by the assessment chairperson, in consultation with the committee. Analysis of statistical significance/variation etc.were completed following the scoring of the exams by a fourth member of the assessment committee.

## Results

*Portfolio Assessment* - Analysis of student portfolios indicated that, overall, students were performing at a level appropriate to their experience in public speaking (see full results in Appendix A). Of the 1026 total items assessed (19 item for 54 portfolios), 73% were rated average or above (72% in 2003). 47% were rated good or above (37% in 2003). 12% of the items were rated excellent (7% in 2003). 14% were below average. 134 (13%) were evaluated as unable to be rated by 2 or more members of the committee and thus no average was assigned.

Looking at the mean, and mode for the 19 items, only one item scored below average (both mean and mode). That item was related to establishing speaker credibility. For that item, the mode was a 2, while the mean was 2.8. Though the mean on this was only slightly below average, it may indicate a necessity for increased attention to this factor in the public speaking classes.

Overall, these scores were an improvement over 2003 when 3 items scored below average for either mean or mode (sufficiency and recency of sources, using source evidence to support the thesis, presentation of a clear preview in the introduction). With regard to the improvement in source material scores, the changes suggest that recommendations regarding the emphasis on use of source material have been somewhat successful and/or changes in the portfolio process have added in evaluating that element.

In considering the three communicative standards under analysis in the portfolios, this sample seems to indicate that students are making progress toward accomplishing these goals in this course. Based on these portfolios, Rowan public speaking students are producing messages that are suited to the requirements of the specific audience and situation. They are also able to produce speeches that accomplish different purposes (particularly reflected in informative and persuasive speeches). Finally, the content of these portfolios, as indicated by the number of items that scored average or above, indicates that the students are planning speeches that are appropriate to the college level.

*Exam Results* - Statistical analysis were completed regarding the exam results as follows (see the full results in Appendix B and empirical analysis provided by Dr. Ken Albone in Appendix c):

Each short essay item on the exam was scored on a ten-point scale, with 9/10 representing an "A" answer on the question, 8 representing a "B" answer on the question, 7 representing a "C" answer on the question, 6 representing a "D" answer on the question, less than 5 representing an "F" answer on the question, and 0 representing a failure to attempt. The average overall score for the exam was 58%; however, one class appeared to be an "outlier" for that total (with an average of 27%). If that class is removed, the overall average becomes 68%. While this overall score is lower than we would like to see in our classes, we feel that some of the issue may be related to student perception of the exam (with some instructors not actually grading the material). Plans to address this will be considered in the recommendation section.

Based on analysis of summary and individual scores across the exams, it appears that each question significantly contributed to the overall exam scores. This indicates the importance of each item in evaluating student knowledge. Additionally, the analysis suggested that student performance on the exam was likely to be highly representative of the entire population of public speaking students.

In reference to overall student performance, question 5, related to credibility of source material was scored most highly across the exams. This suggests that evaluation of source material is an area of strength in our classes.

In addition to question five, students also scored at a “passing” (over 60%) level for questions 1, 7, 10, & 12. These questions related to ethics, general purposes for speaking, thesis statements, and extemporaneous delivery.

Questions 3, 11, 9, & 6 proved more problematic for students. Students on these questions scored less than passing (60%), yet still scored above a 50% level. These questions related to organizational patterns, delivery types, reasoning fallacies, and types of supporting material. Each of the four questions asked students to list/define/apply concepts from the class.

Finally, for questions 2, 3, & 8, we find students scoring less than 50% as an average. These questions, related to audience analysis, types of persuasive speaking, and reasoning were the questions students performed the most poorly on. As with the exam in 2003, reasoning was the weakest area of student response. This suggests that future attention to these issues is warranted.

In total, these examinations suggest that students are doing well with material related to assessing sources. Students are also learning material, to at least a passing degree, about speech planning issues including thesis statements, purposes, ethics, as well as extemporaneous delivery skills. Students are not quite at a passing level for questions related to supporting material, organizational patterns, delivery types, and reasoning fallacies. However, it should be noted that removal of the most problematic section would have brought those scores up to a passing grade. Poorer results on audience analysis and persuasive speaking types suggest that those issues require more classroom attention. We are concerned to note that, again in this assessment, students did very poorly on the reasoning types question. We believe that this suggests insufficient attention to reasoning in the classroom.

## Conclusions

Based on the results for both the portfolio assessment and the written exams, the public speaking course at Rowan seems to be generally meeting the basic objectives of the course and of the Communication Bank of the General Education model. However, we do have concerns about both the exam scores and how the evaluation process proceeded.

This assessment suggests that there are areas where students seem to be achieving with regard to skills (i.e. speech production), yet are somewhat lacking in theoretical/critical application (i.e. speech discussion and assessment). This is problematic as we believe public speaking to be not simply a production course, but also a course designed to help students understand the principles of speaking, as well as how to be critical consumers. We are uncertain, at this point, if the problem is primarily in how students responded to the testing procedure, or in their knowledge base.

While item 10 on the portfolio assessment suggested that students were able to use reasoning and emotional appeals in their speech planning, results for question 8 on the exam indicates that they are less clear about the nature and types of reasoning and how to apply reasoning principles and ideas to analyzing a speech artifact. This then, suggests that a stronger focus on the importance of reasoning and argumentation may be necessary in our public speaking course.

## Recommendations

The assessment committee recommends the following actions be taken by the Department of Communication Studies for the public speaking course: A summary statement of results from this assessment cycle should be provided to all public speaking instructors. The need for students to acquire additional instruction in areas where they fell short of a passing grade should be emphasized in the material. Specific concepts in reasoning should be noted for instructor clarity. Additionally, the department may wish to provide instructors with exercises and course material to facilitate instruction in the lagging topics.

Due to problems in this cycle of assessment, the committee recommends the following changes to the assessment process for the Fall 2007 cycle. First, based on the results of assessment 03, in this assessment, students were asked to place preparation speech outlines for the two researched (informative and persuasive) speeches in the portfolio. While this request was generally followed, some instructors did not seem to be requiring full-sentence outlines (or extended phrase) as requested. This limited the ability to assess all student portfolios, though the percentage assessed rose significantly in this round. For future assessment periods, we recommend making clear to instructors that outlines must be full sentence or extended phrase, and must include bibliographies of any sources used. Because this is consistent with the goals and requirements of the course overall, it should not represent an additional burden to instructors.

Second, there was extreme divergence in class scores for the exam, and this may be due to how instructors “used” the exams in the class. While one of the four instructors used the exam as their graded final, two used it as an additional (low value) assignment, and the fourth used the scores as extra credit. This variance may have created less commitment to studying or fully answering the essay questions in some sections. In the future, we recommend asking all instructors to provide a graded “space” in their course planning for a final exam during the assessment semester. Should they not be selected for the exam, the syllabus can be adapted. Alternately, instructors who wish to use the final (though not selected for the assessment) could be offered that option, on the condition that the finals be returned to the course director upon completion to prevent creation of a “crib” test.

**APPENDIX A**  
**PORTFOLIO SCORE DATA**

Portfolio Evaluations – Fall 2005

Number of each score  
per portfolio

Portfolio 1	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	5	4	4	5	5	5	5	5	4	5	5	4	3	4	4	3	5	4
Lorin	3	4	4	4	5	5	5	5	4	3	4	5	3	4	3	4	5	5	4
Maria	5	4	4	4	5	5	5	5	4	4	4	5	4	3	3	4	5	5	4
<b>Averages</b>	<b>4.0</b>	<b>4.3</b>	<b>4.0</b>	<b>4.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>4.3</b>	<b>3.7</b>	<b>4.3</b>	<b>5.0</b>	<b>3.7</b>	<b>3.3</b>	<b>3.3</b>	<b>4.0</b>	<b>4.3</b>	<b>5.0</b>	<b>4.0</b>

1	0
2	0
3	2
4	11
5	6

Portfolio 2	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	5	5	4	5	4	3	4	4	4	4	4	3	3	X	X	X	3	3	4
Lorin	5	5	4	4	2	2	5	3	4	4	5	X	4	X	X	X	2	2	4
Maria	5	4	3	3	5	5	3	4	4	3	3	2	3	X	X	X	4	4	3
<b>Averages</b>	<b>5.0</b>	<b>4.7</b>	<b>3.7</b>	<b>4.0</b>	<b>3.7</b>	<b>3.3</b>	<b>4.0</b>	<b>3.7</b>	<b>4.0</b>	<b>3.7</b>	<b>4.0</b>	<b>2.5</b>	<b>3.3</b>				<b>3.0</b>	<b>3.0</b>	<b>3.7</b>

1	0
2	0
3	5
4	9
5	2

Portfolio 3	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	5	5	5	4	4	4	5	5	4	4	X	3	4	5	3	4	4	4
Lorin	4	5	5	3	4	2	5	5	5	4	4	X	4	4	4	4	4	4	4
Maria	4	4	4		5	4	3	4	4	3	4	3	3	3	4	4	4	3	3
<b>Averages</b>	<b>4.0</b>	<b>4.7</b>	<b>4.7</b>	<b>4.0</b>	<b>4.3</b>	<b>3.3</b>	<b>4.0</b>	<b>4.7</b>	<b>4.7</b>	<b>3.7</b>	<b>4.0</b>		<b>3.3</b>	<b>3.7</b>	<b>4.3</b>	<b>3.7</b>	<b>4.0</b>	<b>3.7</b>	<b>3.7</b>

1	0
2	0
3	2
4	12
5	4

Portfolio 4	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	5	5	5	5	5	5	5	5	4	5	4	4	5	5	5	4	4	5
Lorin	4	5	5	4	4	4	5	5	4	5	5	X	4	5	5	5	4	4	4
Maria	4	4	5	3	4	5	3	4	4	5	4	4	4	5	4	4	4	4	4
<b>Averages</b>	<b>4.0</b>	<b>4.7</b>	<b>5.0</b>	<b>4.0</b>	<b>4.3</b>	<b>4.7</b>	<b>4.3</b>	<b>4.7</b>	<b>4.3</b>	<b>4.7</b>	<b>4.7</b>	<b>4.0</b>	<b>4.0</b>	<b>5.0</b>	<b>4.7</b>	<b>4.7</b>	<b>4.0</b>	<b>4.0</b>	<b>4.3</b>

1	0
2	0
3	0
4	10
5	9

Portfolio 5	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	5	5	5	5	5	5	5	4	3	4	3	4	3	3	4	3	3	4
Lorin	5	4	5	4	5	4	5	5	4	4	5	4	3	5	4	5	2	4	4
Maria	5	4	3	3	4	4	3	5	4	3	4	3	3	2	2	2	3	4	3
<b>Averages</b>	<b>4.7</b>	<b>4.3</b>	<b>4.3</b>	<b>4.0</b>	<b>4.7</b>	<b>4.3</b>	<b>4.3</b>	<b>5.0</b>	<b>4.0</b>	<b>3.3</b>	<b>4.3</b>	<b>3.3</b>	<b>3.3</b>	<b>3.3</b>	<b>3.0</b>	<b>3.7</b>	<b>2.7</b>	<b>3.7</b>	<b>3.7</b>

1	0
2	0
3	6
4	10
5	3

<b>Portfolio 6</b>	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	5	5	4	3	3	3	3	4	3	3	X	3	X	X	X	3	4	3
Lorin	3	4	4	3	2	2	2	2	3	3	4	X	3	X	X	X	2	3	4
Maria	3	4	4	2	2	3	2	3	4	2	4	2	2	X	X	X	2	3	3
<b>Averages</b>	<b>3.3</b>	<b>4.3</b>	<b>4.3</b>	<b>3.0</b>	<b>2.3</b>	<b>2.7</b>	<b>2.3</b>	<b>2.7</b>	<b>3.7</b>	<b>2.7</b>	<b>3.7</b>		<b>2.7</b>				<b>2.3</b>	<b>3.3</b>	<b>3.3</b>

  

<b>Portfolio 7</b>	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	2	1	4	5	1	3	4	3	3	1	3	X	4	X	X	X	3	3	1
Lorin	3	4	4	4	1	3	3	2	3	4	4	3	3	X	X	X	3	2	4
Maria	4	2	3	3	2	5	2	3	4	4	X	X	3	X	X	X	X	X	X
<b>Averages</b>	<b>3.0</b>	<b>2.3</b>	<b>3.7</b>	<b>4.0</b>	<b>1.3</b>	<b>3.7</b>	<b>3.0</b>	<b>2.7</b>	<b>3.3</b>	<b>3.0</b>	<b>3.5</b>	<b>3.0</b>	<b>3.3</b>				<b>3.0</b>	<b>2.5</b>	<b>2.5</b>

  

<b>Portfolio 8</b>	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	4	4	3	3	3	3	2	3	3	3	X	X	2	3	3	2	3	4
Lorin	4	4	4	4	3	2	2	3	2	4	4	X	3	X	X	X	2	3	4
Maria	4	4	3	2	4	3	1	2	3	4	3	3	3	4	3	4	2	4	4
<b>Averages</b>	<b>4.0</b>	<b>4.0</b>	<b>3.7</b>	<b>3.0</b>	<b>3.3</b>	<b>2.7</b>	<b>2.0</b>	<b>2.3</b>	<b>2.7</b>	<b>3.7</b>	<b>3.3</b>		<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.5</b>	<b>2.0</b>	<b>3.3</b>	<b>4.0</b>

  

<b>Portfolio 9</b>	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	3	2	3	2	3	3	2	2	2	3	3	X	X	2	2	2	2	3	3
Lorin	4	3	3	2	2	2	1	2	3	3	4	X	3	3	3	2	3	2	3
Maria	2	2	3	2	2	1	1	2	2	3	3	2	3	1	1	1	1	2	2
<b>Averages</b>	<b>3.0</b>	<b>2.3</b>	<b>3.0</b>	<b>2.0</b>	<b>2.3</b>	<b>2.0</b>	<b>1.3</b>	<b>2.0</b>	<b>2.3</b>	<b>3.0</b>	<b>3.3</b>		<b>3.0</b>	<b>2.0</b>	<b>2.0</b>	<b>1.7</b>	<b>2.0</b>	<b>2.3</b>	<b>2.7</b>

  

<b>Portfolio 10</b>	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	5	5	5	1	3	2	2	3	4	4	3	4	4	4	4	4	4	5
Lorin	4	4	5	3	2	2	2	3	3	4	4	X	4	4	3	4	2	2	4
Maria	4	2	3	3	2	3	1	2	2	3	4	3	4	4	4	4	2	3	3
<b>Averages</b>	<b>4.0</b>	<b>3.7</b>	<b>4.3</b>	<b>3.7</b>	<b>1.7</b>	<b>2.7</b>	<b>1.7</b>	<b>2.3</b>	<b>2.7</b>	<b>3.7</b>	<b>4.0</b>	<b>3.0</b>	<b>4.0</b>	<b>4.0</b>	<b>3.7</b>	<b>4.0</b>	<b>2.7</b>	<b>3.0</b>	<b>4.0</b>

1	0
2	3
3	8
4	4
5	0

1	1
2	1
3	10
4	4
5	0

1	0
2	3
3	9
4	6
5	0

1	1
2	11
3	6
4	0
5	0

1	0
2	3
3	5
4	11
5	0

Portfolio 11	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	4	4	4	3	4	4	2	3	4	4	4	4	4	4	4	3	3	3
Lorin	5	5	4	3	3	5	3	4	4	4	5	4	3	X	4	3	2	3	3
Maria	5	5	5	4	4	5	3	5	4	4	5	5	4	4	4	5	5	5	4
<b>Averages</b>	<b>4.7</b>	<b>4.7</b>	<b>4.3</b>	<b>3.7</b>	<b>3.3</b>	<b>4.7</b>	<b>3.3</b>	<b>3.7</b>	<b>3.7</b>	<b>4.0</b>	<b>4.7</b>	<b>4.3</b>	<b>3.7</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>3.3</b>	<b>3.7</b>	<b>3.3</b>

1	0
2	0
3	4
4	11
5	4

Portfolio 12	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	5	4	3	2	3	5	2	4	4	4	4	4	4	3	4	4	4	5
Lorin	5	5	5	3	3	3	5	4	5	4	4	5	4	4	4	4	4	4	5
Maria	5	5	4	3	4	5	5	4	4	4	2	4	4	4	4	4	4	5	4
<b>Averages</b>	<b>4.7</b>	<b>5.0</b>	<b>4.3</b>	<b>3.0</b>	<b>3.0</b>	<b>3.7</b>	<b>5.0</b>	<b>3.3</b>	<b>4.3</b>	<b>4.0</b>	<b>3.3</b>	<b>4.3</b>	<b>4.0</b>	<b>4.0</b>	<b>3.7</b>	<b>4.0</b>	<b>4.0</b>	<b>4.3</b>	<b>4.7</b>

1	0
2	0
3	4
4	11
5	4

Portfolio 13	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	1	3	2	2	2	1	3	4	4	3	2	3	4	4	4	3	4	4
Lorin	4	3	6	2	2	2	2	3	3	4	4	X	3	4	5	5	2	3	3
Maria	3	3	3	3	3	3	5	2	4	4	3	4	4	4	4	4	4	4	4
<b>Averages</b>	<b>3.7</b>	<b>2.3</b>	<b>4.0</b>	<b>2.3</b>	<b>2.3</b>	<b>3.0</b>	<b>1.7</b>	<b>3.3</b>	<b>3.7</b>	<b>4.0</b>	<b>3.3</b>	<b>3.0</b>	<b>3.3</b>	<b>4.0</b>	<b>4.3</b>	<b>4.3</b>	<b>3.0</b>	<b>3.7</b>	<b>3.7</b>

1	0
2	4
3	6
4	9
5	0

Portfolio 14	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	4	4	4	1	5	5	4	4	3	3	4	4	4	4	1	3	5	4
Lorin	5	4	5	2	1	2	5	4	4	4	4	3	3	5	4	4	4	3	4
Maria	5	5	4	4	4	5	5	4	5	3	3	4	4	4	4	3	4	5	5
<b>Averages</b>	<b>4.7</b>	<b>4.3</b>	<b>4.3</b>	<b>3.3</b>	<b>2.0</b>	<b>4.0</b>	<b>5.0</b>	<b>4.0</b>	<b>4.3</b>	<b>3.3</b>	<b>3.3</b>	<b>3.7</b>	<b>3.7</b>	<b>4.3</b>	<b>4.0</b>	<b>2.7</b>	<b>3.7</b>	<b>4.3</b>	<b>4.3</b>

1	0
2	1
3	4
4	12
5	2

Portfolio 15	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	5	4	4	4	5	3	4	4	4	4	4	4	4	4	5	4	5	4
Lorin	5	5	5	5	5	2	4	5	5	5	5	5	4	4	5	4	2	5	5
Maria	5	5	4	3	4	5	3	4	4	4	4	4	3	4	4	5	4	5	4
<b>Averages</b>	<b>4.7</b>	<b>5.0</b>	<b>4.3</b>	<b>4.0</b>	<b>4.3</b>	<b>4.0</b>	<b>3.3</b>	<b>4.3</b>	<b>4.3</b>	<b>4.3</b>	<b>4.3</b>	<b>4.3</b>	<b>3.7</b>	<b>4.0</b>	<b>4.3</b>	<b>4.7</b>	<b>3.3</b>	<b>5.0</b>	<b>4.3</b>

1	0
2	0
3	2
4	13
5	4

Portfolio 16	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	4	3	3	3	3	3	4	4	4	3	3	3	4	3	3	3	5	3
Lorin	5	5	5	3	2	2	3	4	4	3	4	4	3	3	3	3	2	4	4
Maria	5	5	3	3	3	3	5	4	4	4	3	4	3	4	3	4	3	5	3
<b>Averages</b>	<b>4.7</b>	<b>4.7</b>	<b>3.7</b>	<b>3.0</b>	<b>2.7</b>	<b>2.7</b>	<b>3.7</b>	<b>4.0</b>	<b>4.0</b>	<b>3.7</b>	<b>3.3</b>	<b>3.7</b>	<b>3.0</b>	<b>3.7</b>	<b>3.0</b>	<b>3.3</b>	<b>2.7</b>	<b>4.7</b>	<b>3.3</b>

1	0
2	0
3	9
4	7
5	3

Portfolio 17	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	5	5	4	4	5	5	5	5	5	4	4	4	4	4	5	5	4	5	5
Lorin	4	5	5	4	5	3	4	5	5	5	5	4	4	4	5	5	2	2	5
Maria	5	5	4	4	4	5	5	5	5	4	4	4	4	5	5	5	4	5	5
<b>Averages</b>	<b>4.7</b>	<b>5.0</b>	<b>4.3</b>	<b>4.0</b>	<b>4.7</b>	<b>4.3</b>	<b>4.7</b>	<b>5.0</b>	<b>5.0</b>	<b>4.3</b>	<b>4.3</b>	<b>4.0</b>	<b>4.0</b>	<b>4.3</b>	<b>5.0</b>	<b>5.0</b>	<b>3.3</b>	<b>4.0</b>	<b>5.0</b>

1	0
2	0
3	1
4	9
5	9

Portfolio 18	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	5	4	3	3	2	3	1	3	3	3	X	X	X	2	3	2	1	2	3
Lorin	5	3	3	2	1	2	1	3	3	3	4	X	3	3	4	3	1	2	4
Maria	5	3	3	2	2	3	1	3	3	2	3	2	2	2	3	2	1	2	2
<b>Averages</b>	<b>5.0</b>	<b>3.3</b>	<b>3.0</b>	<b>2.3</b>	<b>1.7</b>	<b>2.7</b>	<b>1.0</b>	<b>3.0</b>	<b>3.0</b>	<b>2.7</b>	<b>3.5</b>		<b>2.5</b>	<b>2.3</b>	<b>3.3</b>	<b>2.3</b>	<b>1.0</b>	<b>2.0</b>	<b>3.0</b>

1	2
2	5
3	9
4	1
5	1

Portfolio 19	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	1	1	1	1	1	1	3	3	2	X	X	2	X	2	2	X	2	2
Lorin	4	2	3	1	1	1	1	3	3	3	2	X	3	X	X	X	2	3	2
Maria	5	2	X	X	X	X	X	3	3	2	X	1	2	2	2	3	2	2	2
<b>Averages</b>	<b>4.3</b>	<b>1.7</b>	<b>2.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>3.0</b>	<b>3.0</b>	<b>2.3</b>	<b>2.0</b>		<b>2.3</b>	<b>2.0</b>	<b>2.0</b>	<b>2.5</b>	<b>2.0</b>	<b>2.3</b>	<b>2.0</b>

1	4
2	10
3	3
4	1
5	0

Portfolio 20	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	2	3	2	1	2	1	3	3	2	3	2	3	X	X	X	2	3	2
Lorin	4	4	4	1	1	2	1	3	3	3	4	X	3	X	X	X	2	3	3
Maria	4	3	3	2	1	2	1	3	3	2	3	2	3	1	1	1	2	3	3
<b>Averages</b>	<b>4.0</b>	<b>3.0</b>	<b>3.3</b>	<b>1.7</b>	<b>1.0</b>	<b>2.0</b>	<b>1.0</b>	<b>3.0</b>	<b>3.0</b>	<b>2.3</b>	<b>3.3</b>	<b>2.0</b>	<b>3.0</b>				<b>2.0</b>	<b>3.0</b>	<b>2.7</b>

1	2
2	5
3	8
4	1
5	0

Portfolio 21	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	4	4	3	3	1	3	2	4	3	3	4	3	2	4	4	4	X	3	3
Lorin	4	3	3	2	1	2	1	4	4	5	5	X	3	5	5	5	1	2	4
Maria	5	4	3	3	3	5	2	3	3	3	3	3	2	3	3	4	1	2	2
<b>Averages</b>	<b>4.3</b>	<b>3.7</b>	<b>3.0</b>	<b>2.7</b>	<b>1.7</b>	<b>3.3</b>	<b>1.7</b>	<b>3.7</b>	<b>3.3</b>	<b>3.7</b>	<b>4.0</b>	<b>3.0</b>	<b>2.3</b>	<b>4.0</b>	<b>4.0</b>	<b>4.3</b>	<b>1.0</b>	<b>2.3</b>	<b>3.0</b>

1	1
2	4
3	6
4	8
5	0

Portfolio 22	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	5	4	3	3	2	4	4	2	4	4	4	4	4	1	1	2	3	4	4
Lorin	5	5	5	3	2	4	4	4	4	4	4	5	3	2	3	3	2	2	4
Maria	5	5	3	3	2	4	3	4	4	4	4	4	4	1	1	2	3	4	4
<b>Averages</b>	<b>5.0</b>	<b>4.7</b>	<b>3.7</b>	<b>3.0</b>	<b>2.0</b>	<b>4.0</b>	<b>3.7</b>	<b>3.3</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>4.3</b>	<b>3.7</b>	<b>1.3</b>	<b>1.7</b>	<b>2.3</b>	<b>2.7</b>	<b>3.3</b>	<b>4.0</b>

1	1
2	3
3	4
4	9
5	2

Portfolio 23	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	5	5	4	4	2	4	3	3	4	4	4	4	X	X	X	X	2	3	4
Lorin	5	4	5	3	3	5	3	4	4	4	4	5	3	4	4	4	3	4	4
Maria	4	4	4	4	1	4	3	4	4	3	4	4	3	2	2	3	2	4	3
<b>Averages</b>	<b>4.7</b>	<b>4.3</b>	<b>4.3</b>	<b>3.7</b>	<b>2.0</b>	<b>4.3</b>	<b>3.0</b>	<b>3.7</b>	<b>4.0</b>	<b>3.7</b>	<b>4.0</b>	<b>4.3</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.5</b>	<b>2.3</b>	<b>3.7</b>	<b>3.7</b>

1	0
2	2
3	4
4	12
5	1

Portfolio 24	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	5	5	4	6	1	3	3	3	3	3	4	4	3	X	X	2	3	3	4
Lorin	4	4	4	3	2	3	3	3	2	4	4	5	4	2	3	3	2	3	4
Maria	5	5	4	3	3	3	3	4	4	3	4	4	3	3	3	3	3	4	4
<b>Averages</b>	<b>4.7</b>	<b>4.7</b>	<b>4.0</b>	<b>4.0</b>	<b>2.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.3</b>	<b>3.0</b>	<b>3.3</b>	<b>4.0</b>	<b>4.3</b>	<b>3.3</b>	<b>2.5</b>	<b>3.0</b>	<b>2.7</b>	<b>2.7</b>	<b>3.3</b>	<b>4.0</b>

1	0
2	1
3	11
4	5
5	2

Portfolio 25	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	5	5	5	5	4	4	4	4	4	3	4	2	4	2	3	3	3	4	4
Lorin	4	4	5	4	4	2	3	4	4	4	5	4	3	3	3	4	4	4	5
Maria	5	5	4	4	4	5	5	3	4	3	4	3	3	2	2	3	3	4	3
<b>Averages</b>	<b>4.7</b>	<b>4.7</b>	<b>4.7</b>	<b>4.3</b>	<b>4.0</b>	<b>3.7</b>	<b>4.0</b>	<b>3.7</b>	<b>4.0</b>	<b>3.3</b>	<b>4.3</b>	<b>3.0</b>	<b>3.3</b>	<b>2.3</b>	<b>2.7</b>	<b>3.3</b>	<b>3.3</b>	<b>4.0</b>	<b>4.0</b>

1	0
2	1
3	6
4	9
5	3

Portfolio 26	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	5	3	4	3	2	4	4	4	4	4	4	2	3	X	X	2	4	4	4
Lorin	5	5	5	3	1	3	4	4	4	4	4	X	3	X	X	X	4	4	4
Maria	5	4	4	3	1	4	5	4	4	4	4	3	4	1	1	1	3	3	3
<b>Averages</b>	<b>5.0</b>	<b>4.0</b>	<b>4.3</b>	<b>3.0</b>	<b>1.3</b>	<b>3.7</b>	<b>4.3</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>2.5</b>	<b>3.3</b>			<b>1.5</b>	<b>3.7</b>	<b>3.7</b>	<b>3.7</b>

  

Portfolio 27	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	3	X	2	3	2	1	1	1	2	2	2	2	2	1	2	2	1	2	2
Lorin	4	2	4	4	4	2	1	3	3	3	4	X	3	3	4	3	2	2	3
Maria	4	1	2	2	2	1	1	1	2	1	1	2	1	1	2	1	1	2	1
<b>Averages</b>	<b>3.7</b>	<b>1.5</b>	<b>2.7</b>	<b>3.0</b>	<b>2.7</b>	<b>1.3</b>	<b>1.0</b>	<b>1.7</b>	<b>2.3</b>	<b>2.0</b>	<b>2.3</b>	<b>2.0</b>	<b>2.0</b>	<b>1.7</b>	<b>2.7</b>	<b>2.0</b>	<b>1.3</b>	<b>2.0</b>	<b>2.0</b>

  

Portfolio 28	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	5	5	3	2	3	2	3	2	2	3	3	2	2	4	4	3	2	3	3
Lorin	5	5	4	3	3	3	2	4	4	3	5	X	4	4	4	4	2	2	3
Maria	4	3	2	2	2	3	1	2	3	3	3	3	3	3	3	2	1	4	1
<b>Averages</b>	<b>4.7</b>	<b>4.3</b>	<b>3.0</b>	<b>2.3</b>	<b>2.7</b>	<b>2.7</b>	<b>2.0</b>	<b>2.7</b>	<b>3.0</b>	<b>3.0</b>	<b>3.7</b>	<b>2.5</b>	<b>3.0</b>	<b>3.7</b>	<b>3.7</b>	<b>3.0</b>	<b>1.7</b>	<b>3.0</b>	<b>2.3</b>

  

Portfolio 29	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	5	4	2	3	3	3	1	2	2	3	3	2	3	X	X	2	4	4	3
Lorin	5	5	4	4	4	3	2	3	3	4	4	X	4	2	3	3	4	3	4
Maria	5	4	3	4	3	4	1	4	3	3	4	4	4	1	3	4	4	4	4
<b>Averages</b>	<b>5.0</b>	<b>4.3</b>	<b>3.0</b>	<b>3.7</b>	<b>3.3</b>	<b>3.3</b>	<b>1.3</b>	<b>3.0</b>	<b>2.7</b>	<b>3.3</b>	<b>3.7</b>	<b>3.0</b>	<b>3.7</b>	<b>1.5</b>	<b>3.0</b>	<b>3.0</b>	<b>4.0</b>	<b>3.7</b>	<b>3.7</b>

  

Portfolio 30	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
Harriet	5	5	4	4	5	5	5	4	5	3	5	5	4	4	5	5	4	4	5
Lorin	5	5	5	4	5	5	5	5	5	4	5	5	3	4	4	4	3	3	4
Maria	5	5	5	4	4	5	5	5	5	3	4	4	3	4	4	4	5	5	5
<b>Averages</b>	<b>5.0</b>	<b>5.0</b>	<b>4.7</b>	<b>4.0</b>	<b>4.7</b>	<b>5.0</b>	<b>5.0</b>	<b>4.7</b>	<b>5.0</b>	<b>3.3</b>	<b>4.7</b>	<b>4.7</b>	<b>3.3</b>	<b>4.0</b>	<b>4.3</b>	<b>4.3</b>	<b>4.0</b>	<b>4.0</b>	<b>4.7</b>

1	1
2	1
3	3
4	11
5	1

1	3
2	11
3	4
4	1
5	0

1	0
2	4
3	10
4	4
5	1

1	1
2	1
3	9
4	7
5	1

1	0
2	0
3	2
4	6
5	11

<b>Portfolio 31</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet	4	3	4	3	3	3	2	4	3	3	4	4	3	5	5	5	5	5	2
Lorin	5	3	5	3	2	5	3	5	5	5	5	5	4	5	5	5	5	5	4
Maria	5	2	5	4	3	3	1	4	3	3	5	5	4	5	5	5	5	5	3
<b>Averages</b>	<b>4.7</b>	<b>2.7</b>	<b>4.7</b>	<b>3.3</b>	<b>2.7</b>	<b>3.7</b>	<b>2.0</b>	<b>4.3</b>	<b>3.7</b>	<b>3.7</b>	<b>4.7</b>	<b>4.7</b>	<b>3.7</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>3.0</b>

  

<b>Portfolio 32</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet	4	3	3	3	3	5	5	4	4	4	4	5	X	5	5	5	4	3	4
Lorin	4	3	4	3	2	4	5	5	5	4	5	5	3	5	5	4	3	3	4
Maria	2	2	3	3	2	5	5	4	4	3	4	5	3	5	5	5	5	5	4
<b>Averages</b>	<b>3.3</b>	<b>2.7</b>	<b>3.3</b>	<b>3.0</b>	<b>2.3</b>	<b>4.7</b>	<b>5.0</b>	<b>4.3</b>	<b>4.3</b>	<b>3.7</b>	<b>4.3</b>	<b>5.0</b>	<b>3.0</b>	<b>5.0</b>	<b>5.0</b>	<b>4.7</b>	<b>4.0</b>	<b>3.7</b>	<b>4.0</b>

  

<b>Portfolio 33</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet	5	4	5	3	5	5	5	4	4	4	5	5	4	4	4	5	4	5	4
Lorin	5	5	5	2	5	4	4	5	5	4	5	5	3	5	5	5	5	4	4
Maria	5	4	5	4	4	5	5	5	5	4	5	5	4	4	4	5	5	5	4
<b>Averages</b>	<b>5.0</b>	<b>4.3</b>	<b>5.0</b>	<b>3.0</b>	<b>4.7</b>	<b>4.7</b>	<b>4.7</b>	<b>4.7</b>	<b>4.7</b>	<b>4.0</b>	<b>5.0</b>	<b>5.0</b>	<b>3.7</b>	<b>4.3</b>	<b>4.3</b>	<b>5.0</b>	<b>4.7</b>	<b>4.7</b>	<b>4.0</b>

  

<b>Portfolio 34</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet	3	3	3	4	2	3	3	4	4	3	4	3	3	2	2	3	3	3	3
Lorin	4	5	4	4	2	5	5	4	4	4	5	3	4	3	4	3	3	3	4
Maria	3	3	3	4	1	5	5	4	3	4	4	4	4	2	2	4	3	3	4
<b>Averages</b>	<b>3.3</b>	<b>3.7</b>	<b>3.3</b>	<b>4.0</b>	<b>1.7</b>	<b>4.3</b>	<b>4.3</b>	<b>4.0</b>	<b>3.7</b>	<b>3.7</b>	<b>4.3</b>	<b>3.3</b>	<b>3.7</b>	<b>2.3</b>	<b>2.7</b>	<b>3.3</b>	<b>3.0</b>	<b>3.0</b>	<b>3.7</b>

  

<b>Portfolio 35</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet	3	3	3	2	3	2	X	X	X	X	X	X	X	X	X	X	X	X	X
Lorin	3	3	4	2	1	2	2	3	3	3	4	X	3	3	4	3	3	2	4
Maria*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<b>Averages</b>	<b>3.0</b>	<b>3.0</b>	<b>3.5</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>													

1	0
2	1
3	4
4	5
5	9

1	0
2	1
3	5
4	7
5	6

1	0
2	0
3	1
4	6
5	12

1	0
2	2
3	7
4	10
5	0

1	0
2	3
3	2
4	1
5	0

<b>Portfolio 36</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet	5	5	3	X	4	5	5	4	4	4	4	3	3	5	5	5	2	4	3
Lorin	5	5	X	X	3	3	5	5	5	5	5	5	4	5	5	5	2	4	4
Maria	5	4	4	4	4	5	4	3	4	4	4	4	3	4	4	5	3	5	4
<b>Averages</b>	<b>5.0</b>	<b>4.7</b>	<b>3.5</b>	<b>4.0</b>	<b>3.7</b>	<b>4.3</b>	<b>4.7</b>	<b>4.0</b>	<b>4.3</b>	<b>4.3</b>	<b>4.3</b>	<b>4.0</b>	<b>3.3</b>	<b>4.7</b>	<b>4.7</b>	<b>5.0</b>	<b>2.3</b>	<b>4.3</b>	<b>3.7</b>
<b>Portfolio 37</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet	4	4	3	2	2	3	3	4	3	3	4	3	3	4	4	2	2	3	3
Lorin	5	5	5	2	2	4	5	4	4	2	4	X	3	4	4	4	3	4	4
Maria	4	4	3	2	2	4	3	3	3	3	4	3	3	3	3	2	3	3	4
<b>Averages</b>	<b>4.3</b>	<b>4.3</b>	<b>3.7</b>	<b>2.0</b>	<b>2.0</b>	<b>3.7</b>	<b>3.7</b>	<b>3.7</b>	<b>3.3</b>	<b>2.7</b>	<b>4.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.7</b>	<b>3.7</b>	<b>2.7</b>	<b>2.7</b>	<b>3.3</b>	<b>3.7</b>
<b>Portfolio 38</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet	4	4	4	3	3	4	4	4	4	3	4	3	3	3	2	3	3	3	4
Lorin	5	5	5	4	4	3	4	4	3	3	4	X	3	3	4	3	3	3	4
Maria	5	5	4	3	3	4	3	4	3	3	4	3	4	3	2	4	3	4	4
<b>Averages</b>	<b>4.7</b>	<b>4.7</b>	<b>4.3</b>	<b>3.3</b>	<b>3.3</b>	<b>3.7</b>	<b>3.7</b>	<b>4.0</b>	<b>3.3</b>	<b>3.0</b>	<b>4.0</b>	<b>3.0</b>	<b>3.3</b>	<b>3.0</b>	<b>2.7</b>	<b>3.3</b>	<b>3.0</b>	<b>3.3</b>	<b>4.0</b>
<b>Portfolio 39</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet	4	4	5	4	3	5	4	X	X	X	X	X	X	X	X	X	2	3	3
Lorin	4	3	5	4	3	4	5	5	5	4	5	5	3	3	4	3	3	3	4
Maria	4	3	4	3	2	4	3	3	4	3	4	4	4	1	1	4	1	3	3
<b>Averages</b>	<b>4.0</b>	<b>3.3</b>	<b>4.7</b>	<b>3.7</b>	<b>2.7</b>	<b>4.3</b>	<b>4.0</b>	<b>4.0</b>	<b>4.5</b>	<b>3.5</b>	<b>4.5</b>	<b>4.5</b>	<b>3.5</b>	<b>2.0</b>	<b>2.5</b>	<b>3.5</b>	<b>2.0</b>	<b>3.0</b>	<b>3.3</b>
<b>Portfolio 40</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet	4	4	4	3	2	3	2	3	4	3	4	3	3	3	4	4	4	4	4
Lorin	5	5	4	3	1	2	3	4	4	4	4	5	X	3	4	5	5	4	5
Maria	5	4	3	3	1	3	4	3	3	3	4	3	3	3	4	4	4	4	4
<b>Averages</b>	<b>4.7</b>	<b>4.3</b>	<b>3.7</b>	<b>3.0</b>	<b>1.3</b>	<b>2.7</b>	<b>3.0</b>	<b>3.3</b>	<b>3.7</b>	<b>3.3</b>	<b>4.3</b>	<b>3.0</b>	<b>3.0</b>	<b>3.3</b>	<b>4.3</b>	<b>4.3</b>	<b>4.0</b>	<b>4.0</b>	<b>4.3</b>

1	0
2	1
3	1
4	11
5	6
1	0
2	2
3	7
4	10
5	0
1	0
2	0
3	11
4	6
5	2
1	0
2	2
3	5
4	8
5	4
1	1
2	0
3	8
4	9
5	1

<b>Portfolio 41</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Lorin*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Maria*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<b>Averages</b>																			
<b>Portfolio 42</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Lorin*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Maria*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<b>Averages</b>																			
<b>Portfolio 43</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet	4	5	4	5	3	4	5	3	3	3	3	4	4	X	X	X	2	3	3
Lorin	4	5	5	2	2	3	5	4	3	4	5	5	3	2	3	2	4	3	3
Maria	5	5	3	4	4	4	4	3	3	3	4	3	4	1	1	1	4	4	3
<b>Averages</b>	<b>4.3</b>	<b>5.0</b>	<b>4.0</b>	<b>3.7</b>	<b>3.0</b>	<b>3.7</b>	<b>4.7</b>	<b>3.3</b>	<b>3.0</b>	<b>3.3</b>	<b>4.0</b>	<b>4.0</b>	<b>3.7</b>	<b>1.5</b>	<b>2.0</b>	<b>1.5</b>	<b>3.3</b>	<b>3.3</b>	<b>3.0</b>
<b>Portfolio 44</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	3	4	4	3
Lorin	5	3	4	5	5	4	5	5	5	4	4	4	3	5	5	4	4	3	4
Maria	3	3	4	4	3	4	4	4	4	3	4	4	4	3	3	3	4	4	3
<b>Averages</b>	<b>4.0</b>	<b>3.3</b>	<b>4.0</b>	<b>4.3</b>	<b>4.0</b>	<b>4.0</b>	<b>4.3</b>	<b>4.3</b>	<b>4.3</b>	<b>3.7</b>	<b>4.0</b>	<b>4.0</b>	<b>3.7</b>	<b>4.3</b>	<b>4.0</b>	<b>3.3</b>	<b>4.0</b>	<b>3.7</b>	<b>3.3</b>
<b>Portfolio 45</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>
Harriet	4	4	4	3	2	4	1	3	3	4	4	3	3	4	4	4	3	4	4
Lorin	4	5	4	2	2	3	1	3	3	3	4	X	3	4	5	3	2	2	4
Maria	4	4	4	3	3	4	2	2	3	4	4	3	3	3	3	4	3	4	3
<b>Averages</b>	<b>4.0</b>	<b>4.3</b>	<b>4.0</b>	<b>2.7</b>	<b>2.3</b>	<b>3.7</b>	<b>1.3</b>	<b>2.7</b>	<b>3.0</b>	<b>3.7</b>	<b>4.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.7</b>	<b>4.0</b>	<b>3.7</b>	<b>2.7</b>	<b>3.3</b>	<b>3.7</b>

1	0
2	0
3	0
4	0
5	0
1	0
2	0
3	0
4	0
5	0
1	0
2	3
3	7
4	7
5	2
1	0
2	0
3	3
4	16
5	0
1	1
2	1
3	7
4	10
5	0

<b>Portfolio 46</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>	
Harriet	4	3	4	4	2	3	3	3	3	3	4	4	3	3	3	3	3	3	3	
Lorin	4	3	4	3	1	2	3	4	4	3	4	4	3	3	4	3	3	2	3	
Maria	3	3	3	3	1	4	3	3	3	3	4	3	3	2	3	3	3	3	2	
<b>Averages</b>	<b>3.7</b>	<b>3.0</b>	<b>3.7</b>	<b>3.3</b>	<b>1.3</b>	<b>3.0</b>	<b>3.0</b>	<b>3.3</b>	<b>3.3</b>	<b>3.0</b>	<b>4.0</b>	<b>3.7</b>	<b>3.0</b>	<b>2.7</b>	<b>3.3</b>	<b>3.0</b>	<b>3.0</b>	<b>2.7</b>	<b>2.7</b>	
<b>Portfolio 47</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>	
Harriet	4	4	3	2	3	3	3	2	3	3	4	2	3	X	X	2	3	3	3	
Lorin	4	4	2	2	3	2	3	4	4	4	5	4	3	3	4	4	4	3	3	
Maria	4	3	3	3	2	2	3	3	3	2	3	3	3	1	1	2	3	3	3	
<b>Averages</b>	<b>4.0</b>	<b>3.7</b>	<b>2.7</b>	<b>2.3</b>	<b>2.7</b>	<b>2.3</b>	<b>3.0</b>	<b>3.0</b>	<b>3.3</b>	<b>3.0</b>	<b>4.0</b>	<b>3.0</b>	<b>3.0</b>	<b>2.0</b>	<b>2.5</b>	<b>2.7</b>	<b>3.3</b>	<b>3.0</b>	<b>3.0</b>	
<b>Portfolio 48</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>	
Harriet	1	1	1	2	1	1	1	2	2	1	X	X	1	1	1	1	1	2	2	
Lorin	3	3	1	1	1	3	3	2	2	X	X	X	2	2	3	2	1	1	1	
Maria	2	2	X	X	X	X	X	3	3	3	X	1	X	1	1	1	X	X	X	
<b>Averages</b>	<b>2.0</b>	<b>2.0</b>	<b>1.0</b>	<b>1.5</b>	<b>1.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.3</b>	<b>2.3</b>	<b>2.0</b>			<b>1.5</b>	<b>1.3</b>	<b>1.7</b>	<b>1.3</b>	<b>1.0</b>	<b>1.5</b>	<b>1.5</b>	
<b>Portfolio 49</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>	
Harriet	1	1	1	1	1	X	X	2	2	1	X	1	1	1	1	1	1	1	1	
Lorin*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Maria*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
<b>Averages</b>																				
<b>Portfolio 50</b>	<b>#1</b>	<b>#2</b>	<b>#3</b>	<b>#4</b>	<b>#5</b>	<b>#6</b>	<b>#7</b>	<b>#8</b>	<b>#9</b>	<b>#10</b>	<b>#11</b>	<b>#12</b>	<b>#13</b>	<b>#14</b>	<b>#15</b>	<b>#16</b>	<b>#17</b>	<b>#18</b>	<b>#19</b>	
Harriet*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Lorin*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Maria*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
<b>Averages</b>																				

1	1
2	0
3	14
4	4
5	0
1	0
2	3
3	13
4	3
5	0
1	5
2	12
3	0
4	0
5	0
1	0
2	0
3	0
4	0
5	0

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19
<b>Portfolio 51</b>																			
Harriet*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Lorin	3	3	3	1	1	1	1	1	1	2	4	X	2	X	X	X	1	2	2
Maria	4	3	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1
<b>Averages</b>	<b>3.5</b>	<b>3.0</b>	<b>2.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>1.5</b>	<b>3.0</b>		<b>2.0</b>				<b>1.0</b>	<b>1.5</b>	<b>1.5</b>
<b>Portfolio 52</b>																			
Harriet	5	5	4	5	5	5	4	5	5	5	5	5	5	5	5	4	4	5	4
Lorin	4	4	4	5	5	5	4	4	4	4	4	5	4	4	4	5	3	4	5
Maria	5	5	4	4	4	5	5	5	5	4	4	4	4	4	4	5	5	5	4
<b>Averages</b>	<b>4.7</b>	<b>4.7</b>	<b>4.0</b>	<b>4.7</b>	<b>4.7</b>	<b>5.0</b>	<b>4.3</b>	<b>4.7</b>	<b>4.7</b>	<b>4.3</b>	<b>4.3</b>	<b>4.7</b>	<b>4.3</b>	<b>4.3</b>	<b>4.3</b>	<b>4.7</b>	<b>4.0</b>	<b>4.7</b>	<b>4.3</b>
<b>Portfolio 53</b>																			
Harriet	4	4	3	4	3	5	5	4	3	3	3	3	4	2	2	4	3	3	3
Lorin	3	3	4	4	5	5	5	4	4	4	5	5	4	3	3	4	3	3	4
Maria	5	5	3	4	4	4	5	4	4	3	4	4	3	3	3	4	4	4	4
<b>Averages</b>	<b>4.0</b>	<b>4.0</b>	<b>3.3</b>	<b>4.0</b>	<b>4.0</b>	<b>4.7</b>	<b>5.0</b>	<b>4.0</b>	<b>3.7</b>	<b>3.3</b>	<b>4.0</b>	<b>4.0</b>	<b>3.7</b>	<b>2.7</b>	<b>2.7</b>	<b>4.0</b>	<b>3.3</b>	<b>3.3</b>	<b>3.7</b>
<b>Portfolio 54</b>																			
Harriet	4	4	4	4	2	4	5	3	3	3	4	3	3	2	2	4	4	4	3
Lorin	5	5	4	4	2	4	5	4	4	4	5	4	3	4	5	4	4	4	3
Maria	5	5	3	4	5	5	5	4	4	4	4	4	3	3	3	4	4	4	X
<b>Averages</b>	<b>4.7</b>	<b>4.7</b>	<b>3.7</b>	<b>4.0</b>	<b>3.0</b>	<b>4.3</b>	<b>5.0</b>	<b>3.7</b>	<b>3.7</b>	<b>3.7</b>	<b>4.3</b>	<b>3.7</b>	<b>3.0</b>	<b>3.0</b>	<b>3.3</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>3.0</b>
<b>Overall</b>																			
<b>Averages</b>	4.2	3.9	3.7	3.2	2.8	3.5	3.4	3.5	3.6	3.4	4.0	3.6	3.2	3.2	3.4	3.5	3.0	3.4	3.5
<b>Modes</b>	4	5	4	3	2	5	5	4	4	4	4	4	3	4	4	4	3	3	4

1	7
2	5
3	2
4	1
5	0
1	0
2	0
3	0
4	9
5	10
1	0
2	0
3	6
4	11
5	2
1	0
2	0
3	5
4	11
5	3

\* unable to rank

<b>Evaluation Issues</b>	0	3	0	1	3	5	0	1	0	1	1	0	0	1	2	2	1	1	1
	Based on differences greater than 2 standards											23/1026 or 2%							

<b>Ranking Outline Difficulty</b>																			
	13	14	16	17	15	16	17	15	15	16	23	47	21	38	36	32	18	16	17
Based on left blank/unable to rank																			

**Number of each score  
all portfolio averages**

<b>1</b>	32
<b>2</b>	109
<b>3</b>	263
<b>4</b>	351
<b>5</b>	118

**APPENDIX B:**  
**EXAM SCORE SHEETS**

## Assessment Exam Scores By Class - Fall 2005

Class 1

Exam #	Overall %	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
100	96.67%	10	9	10	8	10	10	10	9	10	10	10	10
101	89.17%	7	10	8	10	10	10	10	5	10	8	9	10
102	44.17%	0	6	4	0	8	10	8	4	0	8	5	0
103	91.67%	10	10	10	0	10	10	10	10	10	10	10	10
104	74.17%	10	9	8	10	9	10	4	0	10	7	5	7
105	78.33%	10	8	8	0	10	8	10	8	8	8	8	8
106	71.67%	10	5	3	6	8	10	10	0	8	8	10	8
107	67.50%	10	0	10	7	10	10	4	0	8	8	6	8
108	87.50%	10	7	10	0	10	10	10	10	10	8	10	10
109	74.17%	10	0	8	7	8	10	10	4	8	8	8	8
110	76.67%	10	5	10	3	8	10	8	0	10	8	10	10
111	84.17%	10	9	6	0	10	8	10	10	10	8	10	10
112	93.33%	10	10	6	10	10	10	10	8	10	8	10	10
113	52.50%	8	2	1	0	10	8	10	0	2	8	8	6
114	44.17%	8	3	3	0	9	7	3	0	0	4	8	8
115	69.17%	10	2	8	10	10	10	7	0	10	8	0	8
116	73.33%	10	0	8	2	8	10	10	10	6	6	8	10
117	70.00%	10	4	5	0	10	10	8	3	10	8	8	8
118	94.17%	10	10	10	10	10	10	7	10	10	8	10	8
119	90.83%	8	10	10	10	10	10	7	8	10	8	10	8
Average	76.17%	9.05	5.95	7.30	4.65	9.40	9.55	8.30	4.95	8.00	7.85	8.15	8.25

## Class 2

Exam #	Overall %	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
123	26.67%	8	0	0	0	8	3	8	0	0	3	2	0
125	36.67%	8	5	0	3	8	0	8	0	2	6	2	2
126	45.00%	8	5	0	7	10	3	10	0	0	8	0	3
127	21.67%	10	0	0	0	3	0	3	3	2	3	0	2
128	40.00%	8	9	0	0	8	0	10	0	3	8	0	2
129	29.17%	5	0	0	0	10	0	10	0	2	8	0	0
130	39.17%	8	8	0	0	10	0	10	0	0	8	0	3
131	18.33%	0	3	0	0	8	0	8	0	0	0	0	3
132	21.67%	8	0	0	0	10	0	5	0	0	3	0	0
133	12.50%	3	0	0	0	8	0	0	0	2	0	0	2
134	16.67%	6	0	0	0	3	0	8	0	0	0	0	3
135	45.00%	8	10	2	3	10	5	5	0	0	8	0	3
136	16.67%	8	0	0	0	8	0	0	0	0	4	0	0
137	14.17%	5	0	0	0	3	3	4	0	0	0	0	2
138	45.00%	8	4	4	6	10	0	8	0	3	8	0	3
139	30.83%	0	5	0	0	8	3	6	0	5	8	0	2
140	18.33%	5	0	0	0	8	0	7	0	0	0	0	2
141	25.83%	5	0	0	0	10	0	3	0	0	5	3	5
143	22.50%	8	0	0	3	8	0	3	0	0	5	0	0
144	29.17%	0	0	0	3	10	5	7	0	0	5	0	5
145	25.83%	5	6	0	0	10	0	7	0	0	3	0	0
146	10.83%	3	0	0	0	10	0	0	0	0	0	0	0
Average	26.89%	5.77	2.50	0.27	1.14	8.23	1.00	5.91	0.14	0.86	4.23	0.32	1.91

## Class 3

Exam #	Overall %	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
147	34.17%	3	2	5	10	10	0	0	0	0	7	0	4
148	45.00%	5	3	6	0	10	4	7	0	0	3	8	8
149	65.00%	5	3	10	8	10	8	7	4	3	7	5	8
150	87.50%	5	6	10	8	8	10	10	10	10	8	10	10
151	47.50%	8	8	2	8	8	0	2	0	0	5	8	8
152	24.17%	5	0	0	0	3	2	3	0	0	8	0	8
153	49.17%	5	0	2	2	10	0	8	0	8	8	8	8
154	43.33%	8	2	8	7	10	0	2	3	0	6	3	3
155	55.83%	7	2	5	7	10	3	10	5	0	8	3	7
156	50.83%	10	5	9	0	10	0	8	4	0	8	0	7
157	77.50%	8	3	8	10	10	10	7	3	8	8	10	8
158	90.00%	7	10	10	10	10	8	8	10	10	7	10	8
159	72.50%	5	7	9	10	8	8	6	4	4	8	8	10
160	47.50%	8	2	2	7	10	0	3	2	0	8	5	10
161	30.83%	5	0	6	0	8	5	3	5	0	0	3	2
162	75.83%	5	0	10	6	10	0	10	10	10	10	10	10
163	30.00%	5	7	1	0	10	2	2	0	0	1	0	8
164	86.67%	8	6	10	10	10	10	10	5	10	7	10	8
166	37.50%	8	2	8	0	6	0	4	2	0	2	3	10
167	62.50%	7	3	10	7	10	0	8	4	10	8	0	8
Average	55.67%	6.35	3.55	6.55	5.50	9.05	3.50	5.90	3.55	3.65	6.35	5.20	7.65

Exam #	Overall %	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12
170	35.00%	5	0	3	4	7	0	7	0	0	8	0	8
171	87.50%	5	9	10	7	10	10	10	8	10	8	10	8
172	79.17%	8	8	6	0	8	8	10	10	10	8	9	10
173	75.00%	8	8	10	0	10	10	8	8	10	2	8	8
174	76.67%	5	7	10	8	10	0	4	9	10	9	10	10
175	33.33%	5	0	7	0	4	0	7	3	0	7	0	7
176	50.83%	0	7	6	0	10	0	10	0	0	8	10	10
177	78.33%	8	0	10	0	8	10	10	10	10	8	10	10
178	61.67%	5	4	8	7	5	4	8	7	10	6	10	0
179	87.50%	10	10	10	6	10	10	10	5	10	8	8	8
180	86.67%	8	8	8	6	10	10	10	10	10	8	8	8
181	61.67%	5	7	10	0	8	5	4	0	10	8	10	7
182	62.50%	8	8	4	0	8	0	10	7	10	8	4	8
183	82.50%	10	3	7	10	10	10	10	7	10	8	8	6
184	72.50%	10	3	8	0	8	10	10	4	8	8	10	8
185	78.33%	8	6	10	10	8	10	10	0	10	8	8	6
186	85.83%	8	3	10	8	10	10	10	8	10	8	10	8
187	87.50%	10	10	10	0	10	10	10	10	10	8	10	7
188	58.33%	4	7	5	0	10	5	10	0	8	8	5	8
189	91.67%	5	10	10	10	10	10	10	10	10	7	10	8
Average	71.63%	6.75	5.90	8.10	3.80	8.70	6.60	8.90	5.80	8.30	7.55	7.90	7.65

## APPENDIX C

**Public Speaking Fall 2005 Assessment****Empirical Assessment of Questions 1 to 12.**

Kenneth R. Albone

Submitted to the Public Speaking Committee September 2006

A. Were the questions measuring Public Speaking principles in a valid way?

The questions have high face validity. Well qualified faculty in consultation with each other, texts, recent research, and the general syllabus developed for the Public Speaking required course at Rowan University were involved in the wording of the questions used in the assessment. The questions were related appropriately to the sample speech provided as part of the assessment. Also, the committee had the advantage of having had a similar previous assessment to guide them in preparing this assessment tool.

B. Were the questions measuring Public Speaking principles in a consistent way?

One test to assess consistency is to determine the reliability of the responses via a split halves Pearson correlation. Such a correlation was performed on the odd versus even numbered responses. The results indicated that the questions were reliable, and hence consistently measuring a single construct, i.e., Public Speaking principles ( $r = .89$ ,  $N = 82$ ,  $p < .001$ ).

C. Was each question important in determining the overall percent correct for all the responses?

Twelve Pearson correlations were conducted to test the importance of each question's response to the overall percent correct for all the students. Each correlation represents one of the questions. The initial test alpha was .05 (meaning there would be only a five percent chance of error for each significant correlation found). Because there were twelve tests, one may find one false significant correlation by chance alone (commonly known as a 'false positive'). In this case, all twelve correlation tests were significant to a high degree, indicating the responses for each question were important to the overall percent correct (no false positives). (All correlations had an  $N = 82$  and a  $p < .001$ ; each question's correlation is related to the percent correct for all twelve questions; Q1 = .49, Q2 = .64, Q3 = .85, Q4 = .56, Q5 = .42, Q6 = .80, Q7 = .61, Q8 = .76, Q9 = .88, Q10 = .68, Q11 = .85, Q12 = .74)

#### D. Which questions were better responded to than others?

This question should be answered at two levels. The first level is the descriptive level. The mean value of each question across all 82 students' responses, derived from the assigned 0 to 10 scores, was performed. Then the questions were arranged by the highest mean (students overall did the best) to the lowest mean (students overall did the worst). These means represent the actual differences in responses among the four classes sampled. Since all the means are different, the responses from the 82 students on average are different for the 12 questions. (see results below).

More importantly, however, is the second level of analysis. This is the inferential analysis, which asks if the actual differences in the sample represents real differences in all Public Speaking classes for Fall 2005. There is an assumption that all the Public Speaking classes were similar in instruction in regards to the nature of the twelve questions. In order to test this, 66 dependent t-tests were conducted among the twelve questions. The alpha was set at .05 (meaning there would be only a five percent chance of error for each significant difference found). Because there were 66 tests, one may find three false significant differences by chance alone (commonly known as 'false positives'). In this case, there were 52 significant results, most highly significant, indicating the differences found were important (no false positives). These t-test results are attached as an appendix. The next task is to determine the meaningfulness of the differences as applied to all Public Speaking classes. Here is my interpretation.

In the following Table, the Questions are ordered from highest to lowest in means, indicating the order in which the students responded well to the questions. Common letters refer to which questions were not significantly different from each other, hence not really meaningfully different when considering all the Public Speaking classes. The double spacing is my interpretation of how the questions seemed to group together when considering all Public Speaking classes. Explanations follow the Table.

Table One

Group 1:	Q5 mean = 8.83 a
Group 2:	Q7 mean = 7.22 b Q1 mean = 6.95 b,c Q10 mean = 6.44 c Q12 mean = 6.26 c
Group 3:	Q3 mean = 5.43 d Q11 mean = 5.27 d Q9 mean = 5.10 d,e Q6 mean = 5.06 d,e
Group 4:	Q2 mean = 4.43 e,f Q4 mean = 3.71 f,g Q8 mean = 3.52 g

*Question Five: This speaker uses source material for this speech. Evaluate the sources for credibility. Which sources do you find credible? Why?*

Question Five had the highest correct average response of any of the questions, scoring around 88% correct. In addition, it can be more than 95% certain that this question's average response would have been typical of all Public Speaking classes in the Fall of 2005. Furthermore, Question Five's average response was significantly higher than any of the other question's average response. Hence this suggests that source credibility has been well learned in all of our classes of Public Speaking in the Fall of 2005.

*Question Seven: Speakers, such as this one, need to be sensitive to ethical issues in using supporting material. What are three pieces of advice you would give to this speaker, or anyone preparing a speech, about using material ethically?*

*Question One: There are three general purposes associated with public speaking. Please list those three general purposes, and state which one this speech represents.*

*Question Ten: Having a clear thesis/central idea is an important part of being a good speaker. What is the thesis for this speech? Based upon what you learned in class and the text, explain why this thesis is or is not an effective thesis.*

*Question Twelve: In class, we primarily use extemporaneous speaking. What are the main advantages of speaking extemporaneously?*

As a group, these four questions represent a meaningful difference (with more than a 95% certainty) from the other eight questions when considering all the Public Speaking classes in the Fall of 2005. However, within themselves (except for Question Seven which is related only to Question One), all these questions are grouped together, according to the t-tests. Therefore it seemed appropriate to examine these four as a whole. First, these are the questions which include average responses more than 60% each: Q7 = 72%; Q1 = 69%; Q10 = 64%; and Q12 = 63%. If one were to assume that it is necessary to achieve at least an average of 60% to “pass” a question, then these average percentages for these four questions, representing all Public Speaking classes (with more than a 95% certainty), attained this goal. (Of course, Question 5, at an average of 88%, also represents an average above 60%). Overall, then, only five questions of twelve achieved a “passing” average. (NOTE: The 60% average was arbitrarily chosen. If one chose a 50% average, then nine of the twelve questions attain a “passing” mark). The key for future assessments is to determine ahead of time what average the committee would like to see for each question, or the question set as a whole.

Aside from the percent average correct, what might be some qualitative commonalities, if any, among these four questions? Among perhaps others, there seems to be a common ground in the area of general speech preparedness: ethical issues in preparing a speech, the general purpose for a speech, a clear thesis for a speech, and using extemporaneous delivery. Certainly the content of each question may also be examined as part of the assessment process.

*Question Three: What are four of the six most common organizational patterns for speeches as presented in your text (state and briefly define). Indicate which pattern this speaker has used.*

*Question Eleven: What are the four types of delivery associated with public speaking (list and define)?*

*Question Nine: Are there reasoning fallacies present in this speech? If yes, state the fallacy and show where it is present. If not, state, define, and provide an example of a reasoning fallacy that can exist in a speech.*

*Question Six: What are the three types of supporting materials typically used in public speaking? Give an example from this speech for one of the types and tell which type it is.*

As a group, these four questions represent a meaningful difference (with more than a 95% certainty) from the other eight questions when considering all the Public Speaking classes in the Fall of 2005 (except Question Nine and Question Six with Question Two only). However, within themselves all these questions are grouped together, according to the t-tests. Therefore it seemed appropriate to examine these four as a whole. All these questions have an average percentage in the 50's, which represents all the Public Speaking classes: Q3 = 54%; Q11 = 53%; Q9 = 51%; and Q6 = 51%.

As with the previous set of questions, finding commonalities among these questions, if any, could be useful. This should not replace looking at the content of each question, and discussing what could be done to strengthen instruction for the Public Speaking courses in the future. Three of the questions focus on recalling speech material in an empirical way: four of the six common organizational patterns, four types of delivery, and three types of supporting material. Two of the questions concern reasoning and supporting materials, which may be important. Also, notice how Question Seven, concerning ethics and supporting material, had an average response of 72%, whereas Question Six, about supporting materials in general, had an average response of only 51%, indicating (with more than 95% certainty) that students in Public Speaking classes for 2006 addressed **ethics** in supporting material correctly 21% more on average than they addressed **types** of supporting material.

*Question Two: Audience analysis is very important for public speaking. What are the two main parts of audience analysis? For each part, state three elements that would need to be considered by the speaker. Finally, how does this speech reflect audience analysis?*

*Question Four: Persuasive speeches are of three primary types. State and define the three types.*

*Question Eight: State, define, and provide an example for two types of reasoning used in this speech.*

Except for Question Two, these three questions are separated from the other nine by the t-tests. Even Question Two is only connected to Questions Nine and Six from the previous set, and is clearly connected to Questions Four and Eight. Representing the Public Speaking classes in the Fall of 2005 (with more than a 95% certainty), they have the lowest percentages correct: Q2 = 44%; Q4 = 37%; and Q8 = 35%.

These average responses are, of course, the lowest of the twelve and should be the focus of improving instruction in the public speaking.

One common element among these three questions may be that they all represent in some way a connection to what is expected in a good persuasive speech: audience analysis, type of persuasion, and types of reasoning. Of course, audience analysis and reasoning are present in other speeches of the course.

## Results of Dependent t-tests among the Twelve Questions

N = 82 for all tests      Absolute t values shown since two-tailed tests performed

<u>Question Pair</u>	<u>t value</u>	<u>p value</u> (n.s. = not significant)
Q1 – Q2	5.67	p < .001
Q1 – Q3	3.42	p < .005
Q1 – Q4	6.63	p < .001
Q1 – Q5	5.51	p < .001
Q1 – Q6	4.13	p < .001
Q1 – Q7	.68	n.s.
Q1 – Q8	7.65	p < .001
Q1 – Q9	3.95	p < .001
Q1 – Q10	1.45	n.s.
Q1 – Q11	3.55	p < .005
Q1 – Q12	1.75	n.s.
Q2 – Q3	2.18	p < .05
Q2 – Q4	1.40	n.s.
Q2 – Q5	11.72	p < .001
Q2 – Q6	1.32	n.s.
Q2 – Q7	6.74	p < .001
Q2 – Q8	2.03	p < .05
Q2 – Q9	1.45	n.s.
Q2 – Q10	5.18	p < .001
Q2 – Q11	1.87	n.s.
Q2 – Q12	4.21	p < .001
Q3 – Q4	3.82	p < .001
Q3 – Q5	7.85	p < .001
Q3 – Q6	.93	n.s.
Q3 – Q7	4.00	p < .001
Q3 – Q8	5.44	p < .001
Q3 – Q9	.95	n.s.
Q3 – Q10	2.57	p < .05
Q3 – Q11	.46	n.s.
Q3 – Q12	2.49	p < .05

N = 82 for all tests      Absolute t values shown since two-tailed tests performed

<u>Question Pair</u>	<u>t value</u>	<u>p value</u> (n.s. = not significant)
Q4 – Q5	11.78	p < .001
Q4 – Q6	2.58	p < .05
Q4 – Q7	6.60	p < .001
Q4 – Q8	.34	n.s.
Q4 – Q9	2.70	p < .01
Q4 – Q10	6.43	p < .001
Q4 – Q11	2.98	p < .005
Q4 – Q12	5.28	p < .001
Q5 – Q6	7.84	p < .001
Q5 – Q7	4.57	p < .001
Q5 – Q8	12.03	p < .001
Q5 – Q9	7.59	p < .001
Q5 – Q10	8.11	p < .001
Q5 – Q11	7.81	p < .001
Q5 – Q12	6.84	p < .001
Q6 – Q7	4.85	p < .001
Q6 – Q8	3.42	p < .005
Q6 – Q9	.10	n.s.
Q6 – Q10	2.99	p < .005
Q6 – Q11	.57	n.s.
Q6 – Q12	2.71	p < .01
Q7 – Q8	9.12	p < .001
Q7 – Q9	4.86	p < .001
Q7 – Q10	2.50	p < .05
Q7 – Q11	4.50	p < .001
Q7 – Q12	2.40	p < .05
Q8 – Q9	4.05	p < .001
Q8 – Q10	6.86	p < .001
Q8 – Q11	4.62	p < .001
Q8 – Q12	6.83	p < .001
Q9 – Q10	3.17	p < .005
Q9 – Q11	.49	n.s.
Q9 – Q12	2.76	p < .01
Q10 – Q11	2.79	p < .01
Q10 – Q12	.54	n.s.
Q11 – Q12	2.84	p < .01