

## Assessment Committee Paper #3, Spring 2013

### Direct Assessment of Writing, Research and Information Literacy Skills in First Year Seminar Courses

#### Learning Goals

St. Lawrence University's First-Year program places a significant emphasis on the development of writing, research, and information literacy skills. By the end of the second semester, students are expected to complete a significant research project.

The First-Year Seminar (FYS) learning goals state that through the research project, students will:

- Be introduced to ways of conducting productive and imaginative inquiry and research in order to become a part of the various conversations surrounding issues;
- Learn to differentiate among the various ways that information is produced and presented, between popular and scholarly journals and books, between mainstream and alternative publications, between primary and secondary sources;
- Learn how to evaluate and synthesize information, whether gathered from traditional sources, such as books and journals, or from websites or electronic media;
- Begin to develop the skills of critical analysis in the interpretation and use of information gathered from any source;
- Be introduced to the ethical obligations that scholars have to both responsibly represent their sources and inform their readers of the sources of their information, as well as learning, and being held responsible for the proper use of, the conventions of scholarly citation and attribution; and
- Present the results research through writing, speaking, visual elements, or other multimedia forms in such a way that demonstrates the ability to communicate effectively using the rhetorical conventions of the chosen form.

#### Implementation

Based on a study of rubrics from other institutions, including the AAC&U and Teagle, and based on the specific learning goals given above for writing-research-information literacy, members of the Assessment Committee developed a two-part rubric (links provided below) to use on completed FYS research papers. Assessment committee members used the newly developed rubric to assess the writing and research skills of first year students using student research papers randomly collected from FYS courses at the end of the Spring 2009 semester. All papers were read by two readers, and if there was strong disagreement, the paper was scored by a third reader. From that first round of direct assessment, the data was analyzed for its inter-reader reliability and for means and distributions of student scores across the criteria. After this assessment was completed, there were several rounds of revision of the rubric and more norming sessions to try to improve the consistency of scoring across readers and to make sure the rubric was providing useful information regarding student learning. Papers were randomly collected from FYS courses at the end of the Spring 2010 semester for a second round of FYS goals assessment.

Each criterion was scored on a scale of 0 to 5, with 0 indicating no accomplishment of the goals of the criterion and 5 indicating the highest level of accomplishment for that criterion (exemplary work). For the [writing](#) proportion of the rubric, the criteria were slightly revised from the first to second round of assessment. For example, it was particularly difficult for readers on the assessment committee to determine whether students were cognizant of the audience. In some

cases this was due to lack of information about audience on the assignment sheet. The [research](#) proportion of the rubric remained the same.

## Results

Below are the reliability measures and means of the scores from assessing the 2009 FYS papers. Highest reliability was achieved with synthesis of information and integration of source material. The weakest reliability was found for audience, but critical evaluation of sources and organization and use of evidence to support thesis also had low reliability, where the generally accepted cutoff is 0.7. In terms of students' ratings, in all but one category, critical evaluation of sources, the mean scores exceed level 2. Students' papers were rated highest for several of the writing criteria – organization, paragraph structure, and mechanics and usage. An analysis of scores across gender finds statistically significant higher scores for female students on the research criteria and higher scores on writing criteria, but the latter differences are small in magnitude and not statistically significant. A possible explanation for these gender differences is that female students appear to spend more time studying and doing homework and more frequently revise their writing. For example, from the 2012 HERI Senior Survey, 24 percent of male graduating seniors spend over 16 hours per week studying, compared to 40 percent for female graduating seniors. In terms of revising papers, 61 percent of females report that they frequently revised papers compared to 45 percent of males.

**Table1: Rubric Reliability and Mean Scores for Spring 2009 FYS Assessment**

	<b>Reliability</b>	<b>Overall Mean</b>	<b>Mean for Males</b>	<b>Mean for Females</b>
<b>Research/Use of Sources</b>				
Variety of Sources	0.61	2.26	1.88	2.50
Critical Evaluation of Sources	0.51	1.79	1.34	2.07
Synthesis of Information	0.70	2.20	1.73	2.49
Integration of Source Material	0.70	2.32	1.89	2.59
Source Citation	0.64	2.28	1.70	2.65
<b>Writing</b>				
Thesis/Argument	0.63	2.01	1.78	2.15
Use of Evidence to Support Thesis	0.60	2.58	2.34	2.72
Audience	0.44	2.35		
Organization	0.60	2.81	2.50	3.00
Paragraph Structure	0.62	2.76	2.46	2.95
Sentence Structure	0.67	2.63	2.34	2.80
Mechanics & Usage	0.64	2.73	2.54	2.85
<b>Average</b>	<b>0.61</b>	<b>2.39</b>	<b>2.05</b>	<b>2.62</b>

Below are the results of the assessment of 2010 FYS research papers. As with the previous year's assessment, highest reliability was achieved for several of the research/use of sources criteria. Reliability is lower for writing criteria except for integration of sources. Reliability scores dropped for the writing criteria compared to the previous FYS assessment. For the criteria with reliability over 0.7, students are achieving rubric scores of over 2.0, with depth of research and ethical use of courses with the highest scores. As we found for 2009 papers, females are performing higher than males on all criteria, with the largest differences for the research-based criteria.

**Table 2: Rubric Reliability and Mean Scores for Spring 2010 FYS Assessment**

	<b>Reliability</b>	<b>Overall Mean</b>	<b>Mean for Males</b>	<b>Mean for Females</b>
<b>Research/Use of Sources</b>				
Depth of Research	0.74	2.72	2.41	2.96
Synthesis of Information	0.72	2.23	1.98	2.43
Ethical Use of Sources	0.76	2.63	2.39	2.81
Thesis/Controlling Idea	0.60	2.52	2.28	2.71
Use of Evidence to Support Thesis	0.59	3.02	2.82	3.19
<b>Writing</b>				
Integration of Source Material	0.70	2.58	2.33	2.77
Organization	0.51	2.54	2.34	2.71
Paragraph Structure	0.43	2.74	2.68	2.78
Sentence Structure	0.45	2.65	2.61	2.68
Mechanics	0.53	2.68	2.63	2.73
<b>Average</b>	<b>0.60</b>	<b>2.63</b>	<b>2.45</b>	<b>2.78</b>

The table below provides a more detailed picture of the skill level of first year students from the assessment of the 2010 FYS research papers. Panel A provides the distribution of scores (given in percentages) for the research criteria, and Panel B provides the distribution of scores for the writing criteria.

As shown in Panel A, for synthesis and ethical use of sources, close to 25 percent of the student papers scored below a 2.0, but 21 percent and 45 percent were rated as a 3.0 or higher on those same two criteria, respectively. Less than 20 percent of the student papers were rated as below 2.0 on any of the writing criterion, and at the other end of the spectrum, a small percentage (no more than 10 percent) are at the 4.0-5.0 level.

### **Distribution of Rubric Scores from Spring 2010 FYS Assessment**

#### **A. Percentage of Students Receiving Score Ranges on Research/Use of Sources Criteria**

	<b>Depth</b>	<b>Synthesis</b>	<b>Ethical Use</b>	<b>Thesis</b>	<b>Evidence</b>
Below 2.0	13	24	23	18	2
2.0-2.5	34	53	27	47	37
3.0-3.5	44	18	37	28	40
4.0 or above	10	3	8	5	2

#### **B. Percentage of Students Receiving Score Ranges on Writing Criteria**

	<b>Integration</b>	<b>Organization</b>	<b>Paragraphs</b>	<b>Sentences</b>	<b>Mechanics</b>
Below 2.0	18	19	11	8	11
2.0-2.5	36	37	37	40	43
3.0-3.5	40	37	45	43	36
4.0 or above	2	6	3	8	10

The expectation of the assessment committee is that by the end of their first year, students should be scoring in the range between a 2 and 3. Results suggest that for the majority of students, their skill development is at the level expected of students at end of the first year of college, with over 1/3 of our students already achieving above a 3.0 score for research and writing criteria. Greatest weaknesses are the articulation of a quality, focused thesis and effective synthesis of source material into the research paper. These areas not only have the lowest mean scores, but they are also areas where more than half of all students in Spring 2010 FYS courses received a score (averaging between the two readers) of 2.5 or below. Writing criteria tend to have a greater share of students performing at the 3.0 level and higher, but these results have lower reliability.

### Responses to assessment results

The assessment work above was accomplished through the University Assessment Committee in Spring 2011 and Fall/Spring 2012. Since then, it has moved into the First-Year Program, so that the faculty teaching in the program can benefit from the rubric assessment process to engage with colleagues in conversations about expectations and improvement. This has been pursued in two ways. Each June, new and returning faculty who teach in the First-Year Program participate in a 3-day, intensive faculty development retreat at Canaras, a University-owned Great Camp in the Adirondack Park. At Canaras in June 2012, FYP faculty scored several papers of first-year students as part of this workshop and engaged in an in-depth discussion of writing, facilitated by the Director of the Rhetoric and Communication Program, who is also a member of the University Assessment Committee. In addition, the First-Year Program and the Associate Dean for Advising have started a new initiative to identify “writers of concern” and develop an alternative system to our “unsatisfactory writing” (UW) system. A [separate report](#) on these efforts can be found under the Assessment Committee reports.

There have also been a number of faculty development workshops and events related to these assessment results available to all faculty members. In January 2011, we held the first Winter Institute for faculty development focused on rhetoric and communication. This two-day event between semesters had workshops for faculty on teaching thesis development, ‘flow’ in writing, and summarizing information, and on providing effective feedback on student writing. At May Faculty College 2011, we held sessions on mentoring student research. In June 2012 we held a 2-day workshop on assessment of student writing with faculty representatives from all departments across campus. The focus was on rubric development and assessment for evaluating writing, information literacy and research. The productive conversations led to a realization that there are key, shared values and goals across departments with respect to writing and research skills.

The 2013 Winter Institute featured a session on first-year student writing. In our discussions of the new curriculum, we reiterated our commitment to teach students writing, information literacy, and communication skills that develop, “an ability to speak and write clearly, articulately, and persuasively” and “an ability to acquire, evaluate, and communicate information.” This commitment begins in the First Year Program but continues throughout the students’ career at St. Lawrence. The goal of the session was to give all faculty, those who teach in the FYP and those who do not, a sense of what they can expect from first year college student writers as well as experience with assessing student writing through a rubric.