Upper-Level Oral Communication Assessment
April 2017

The development of communication skills is an important general education goal of a St. Lawrence education and is reflected in two goals and objectives that are part of the curriculum:

> …a St. Lawrence education is designed to develop:
> 1) an ability to speak and write clearly, articulately, and persuasively; and
> 2) an ability to acquire, evaluate, and communicate information.
>   (page 1 SLU Catalog)

National surveys[1] consistently show that St. Lawrence students are frequently asked to give class presentations, and St. Lawrence faculty members more frequently engage communication pedagogies than faculty at other similar institutions. Survey data also suggest that St. Lawrence students report greater growth in "public speaking ability" relative to students elsewhere.[2] However, these data provide little insight into the specifics of oral communication skills or levels of proficiency that students actually achieve relative to our oral communication learning goals above.

In spring 2016, the University Assessment Committee launched a pilot project and assessed speeches of 56 students in 11 upper-level courses. Each speech was recorded and subsequently rated by both the instructor and a member of the Assessment Committee, using the Assessment Committee's oral communication rubric. This project complements an extensive oral communication skills assessment of first-year students from spring 2015.[3]

The Rubric

The oral communication rubric was developed in 2012 by members of the Assessment Committee under leadership of Kirk Fuoss, Maurer Director of the Rhetoric and Communication Program. It measures three key aspects of a speech: (1) structural components; (2) thesis & use of evidence; and (3) language, style & delivery – each of which break down into more detailed subcomponents for a total of 17 rubric items – and four proficiency levels, with 1 being the lowest and 4 being the highest.

Rubric Dimensions	Rubric Items
Structural Components	**1-9**
Introduction	1-5
Body	6-7
Conclusion	8-9
Thesis Evidence Citation	**10-13**
Language Style Delivery	**14-17**

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[1] NSSE, HERI YFCY and Senior Survey, HERI Faculty Survey
[2] HERI Senior Survey 2016
[3] See 2015 FYS Oral Communication Assessment

Methodology

During the fall 2015 semester, the Assessment Committee asked departments and programs to indicate which of the courses addressed each of the University's general education goals. In the spring 2016 semester, we contacted all instructors teaching 300- and 400-level courses for which oral communication was a learning goals. These instructors were asked to complete a brief online survey. The survey asked if the course included an oral communication assignment that would meet 3 specific requirements: a) students gave a solo presentation of at least 5 minutes in length; b) the presentation was graded, and c) the presentation was worth at least 5 percent of the course grade.

All but one instructor completed the survey, providing information on 77 (out of 78) upper-level courses taught in spring 2016. Sixty percent of the courses (n=47) met all three criteria; 11 courses participated in the assessment project. The Assessment Committee facilitated a norming session for instructors, and IT provided support by videotaping the speeches and placing them on a secure Sakai site for raters to access. For each course, a stratified sample of approximately 6 students was selected to be included in the assessment, aiming to ensure gender balance and giving preference to seniors. Instructors teaching the courses served as the first group of raters and a subcommittee of the Assessment Committee as the second group. In total, 56 speeches were scored; all but one student were juniors (n=20) and seniors (n=35). Twenty-three students were male and 33 students were female. All speeches were scored at least twice, with eight speeches rated by a third reader when scores between rater 1 and 2 were too divergent, leading to 121 ratings of speeches in total.

Data was analyzed in two ways: a mean score analysis and a frequency distribution analysis. The _mean score analysis_ averaged rubric scores for each student across raters (thus, the total unit of analysis was 56 students/speeches) and aggregated scores for the rubric dimensions and overall. This provided a quick comparison across rubric elements and comparisons to our first-year student oral communication skills.

Instead of averaging the 17 individual rubric scores that comprised the Oral Communications rubric, the overall mean was derived by averaging the mean sores of the three key rubric dimensions (i.e., Structural Components; Thesis/Evidence/Citation; Language/Style/Delivery). To do otherwise would have unduly weighted the structural components, since they comprise over half of the rubric items. The method adopted here assumes that each of the three rubric dimensions are equally important in contributing to the overall assessment of oral communication proficiency.

However, more subtle differences were lost with the averaging of the data. Thus, data was also analyzed in the form of _frequency distributions_ of scores for each of the 17 detailed rubric items, to focus more specifically on the percentage of students that were demonstrating specific proficiency levels. For *the frequency distribution tables*, the unit of analysis was each rater (2 raters per speech plus a 3rd rater in a few cases), leading to a total of 121 rated speeches for the frequency analysis.

Limitations
This project is a pilot, and findings from this study are preliminary, currently based on only 56 upper-class students. We need to assess a larger number of upper-level students' speeches to feel confident in our conclusion and to draw additional meaningful conclusions about differences in performance by class level (juniors versus seniors, e.g.), course level, by division of the University, or other characteristics. The analysis is limited to a cross-sectional comparison of upper-level students to a different subset of

first-year students. It is *not* a longitudinal study assessing the *same* students at two different points of time.

<u>Discussion of Results: Mean Assessment Scores</u>

Overall
The mean score for upper-level speeches is 2.7 (based on a scale from 1 to 4), suggesting that the majority of students achieved a proficiency greater than the midpoint of the scale (a mean of 2.5). Mean scores are highest for thesis development, evidence and citations and lowest for concluding the speech. (Table 1)

Table 1: Upper-Level Communication - Means for Key Rubric Dimensions, Overall and by Gender

Rubric Dimensions	Rubric Items	*n=56* Total	*n=23* male	*n=33* female
Structural Components	**1-9**	**2.7**	**2.5**	**2.7**
Introduction	1-5	2.6	2.5	2.7
Body	6-7	2.9	2.7	3.0
Conclusion	8-9	2.5	2.4	2.5
Thesis Evidence Citation	**10-13**	**2.9**	**2.6**	**3.1**
Language Style Delivery	**14-17**	**2.7**	**2.6**	**2.8**
Overall Mean	1-17	2.7	2.6	2.9

By Gender
Our pilot data suggests significant performance differences between male and female students, a finding also noted in the FYS assessment. Women outperformed men on 15 of the 17 individual items. Men were stronger in relating the topic to themselves and to the audience, while women outperformed men (by a mean score of 0.5 and higher) in the use of evidence and supporting materials for their speeches and the citation of sources (Tables 1, 2). This finding is of particular relevance because survey data consistently suggests (at St. Lawrence as well as elsewhere) that males perceive their speaking abilities as significantly stronger than do females.[4]

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[4] See HERI Freshman Surveys, HERI Your First College Year Surveys, and HERI Senior Surveys

Table 2: Upper-Level Communication - Means for Detailed Rubric Items, Overall and by Gender

Rubric Items	n=56 Total	n=23 male	n=33 female
Hook (1)	2.7	2.5	2.8
Intro (2)	3.0	2.7	3.1
Relate to self (3)	2.4	2.5	2.3
Relate to audience (4)	2.4	2.5	2.4
Preview (5)	2.6	2.4	2.8
Organization (6)	3.0	2.8	3.1
Transition (7)	2.8	2.6	2.9
Review (8)	2.4	2.4	2.4
Closure (9)	2.5	2.4	2.6
Thesis (10)	2.9	2.7	3.0
Types of Support (11)	3.0	2.7	3.2
Variety of Sources(12)	2.9	2.6	3.1
Citations (13)	2.7	2.3	2.9
Language (14)	2.6	2.5	2.6
Style of Delivery (15)	2.8	2.7	2.9
Vocal Delivery (16)	2.8	2.7	2.9
Physical Delivery (17)	2.7	2.6	2.8

By Class Level – First Year versus Junior/Senior Level

The cross-sectional comparisons of mean scores between the end of first year (2015 FYS Assessment) and end of junior/senior year (2016 Upper-Level Course Assessment) shown in table 3 suggest students indeed improve and become stronger speakers, and most improvements are 0.2 points or higher, which is generally a quantitatively notable change. However, the detailed mean comparison in table 4 also indicates areas of no change or negative change, including the criteria of providing an effective introduction, providing a preview, and reviewing key points of the presentation in the end.

Table 3. Mean Scores for Key Dimensions of Oral Communication, First Year vs. Upper Class Students

Items		First Year	Upper Class
1-9	**Structural Components**	**2.5**	**2.7**
1-5	*Introduction*	*2.5*	*2.6*
6-7	*Body*	*2.6*	*2.9*
8-9	*Conclusion*	*2.4*	*2.5*
10-13	**Thesis Evidence Citations**	**2.6**	**2.9**
14-17	**Language Style Delivery**	**2.5**	**2.7**
1-17	**Overall Mean**	**2.5**	**2.7**

Table 4. Difference in Mean Scores for Detailed Rubric Items, First Year vs. Upper-Level Students

	FY	Upper	Diff
Hook (1)	2.4	**2.7**	0.3
Intro (2)	3.0	**3.0**	0.0
Relate to self (3)	2.1	**2.4**	0.3
Relate to audience (4)	2.1	**2.4**	0.3
Preview (5)	2.6	**2.6**	0.0
Organization (6)	2.7	**3.0**	0.3
Transition (7)	2.5	**2.8**	0.3
Review (8)	2.6	**2.4**	-0.2
Closure (9)	2.2	**2.5**	0.3
Thesis (10)	2.7	**2.9**	0.2
Types of Support (11)	2.9	**3.0**	0.1
Variety of Sources(12)	2.5	**2.9**	0.4
Citations (13)	2.4	**2.7**	0.3
Language (14)	2.4	**2.6**	0.2
Style of Delivery (15)	2.6	**2.8**	0.2
Vocal Delivery (16)	2.5	**2.8**	0.3
Physical Delivery (17)	2.5	**2.7**	0.2

Results: Frequencies of Assessment Scores
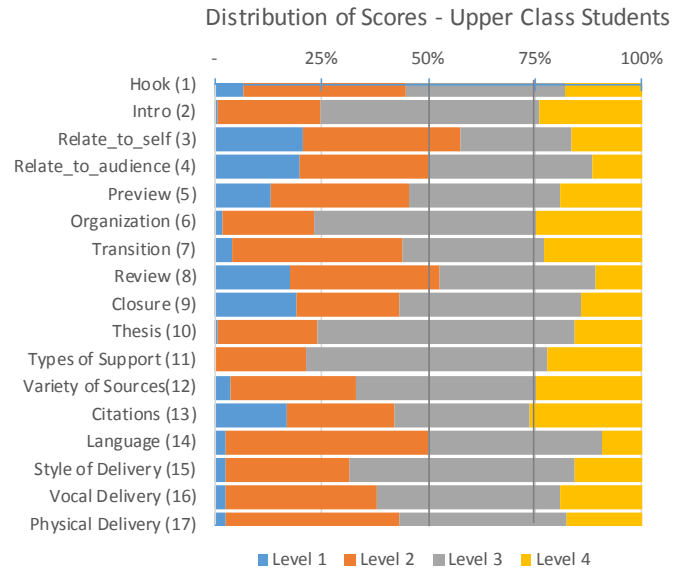
Overall
Table 5 and figure 1 provide the distribution of rubric scores by rubric item from all 121 ratings of the 56 students' speeches. Upper-level students received the highest ratings for rubric criteria related to the introduction, organization, use of transitions, types of support, variety of sources, and use of citations, with close to 25 percent of the scores at the level of "4." Although not areas for which students received a high percentage of scores of "4," there were very few scores of "1" in the language and delivery aspects of the oral presentations. That is, the bulk of students performed at levels "2" and "3" in those areas. Four areas of the rubric have a relatively high percentage of students scoring at the lowest level and few students at the highest level: relating the speech to one's self and to the audience and reviewing and providing closure to the speech. Use of citations was also an area for which close to 20 percent of the students scored at the lowest level, even though for that criterion there is also a higher percentage of scores at the highest level: this bi-modal distribution may reflect the variety of oral presentation assignments rather than bi-modal skills achievement.
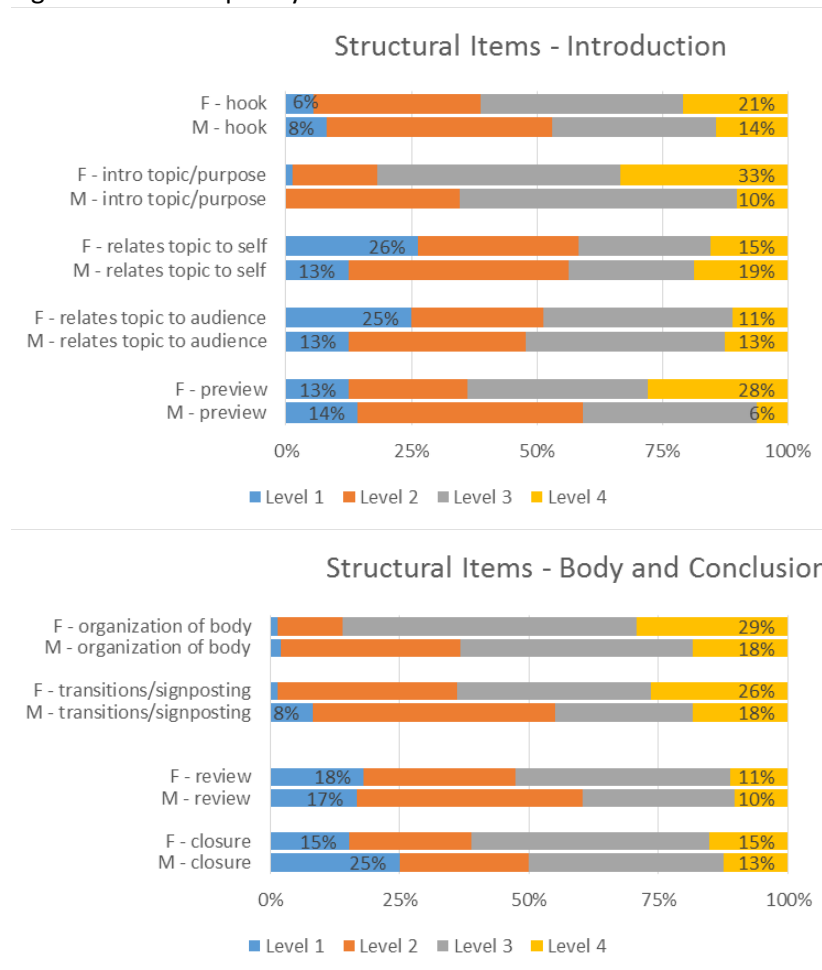
By Gender
Figures 2a to 2d provide the frequency distributions for male and female students. Females demonstrated significantly higher levels of proficiency (i.e. were more frequently rated as achieving level"4") in areas such as: introducing the topic and purpose, providing a preview, organization, using transitions, choosing and drawing from a variety of support materials that serve the rhetorical aims, and providing citations. Females also were more likely to be scored higher in the language-style-delivery criteria. Notably as well, male students were more likely more to fall into a proficiency level of "2."

Table 5/Figure 1: Frequency Distribution of Scores for Upper Class Students

Distribution of Scores by Rubric Items				
	Level 1	Level 2	Level 3	Level 4
Hook (1)	7%	38%	37%	18%
Intro (2)	1%	24%	51%	24%
Relate_to_self (3)	21%	37%	26%	17%
Relate_to_audience (4)	20%	30%	38%	12%
Preview (5)	13%	32%	36%	19%
Organization (6)	2%	22%	52%	25%
Transition (7)	4%	40%	33%	23%
Review (8)	18%	35%	37%	11%
Closure (9)	19%	24%	43%	14%
Thesis (10)	1%	23%	60%	16%
Types of Support (11)	-	21%	57%	22%
Variety of Sources(12)	4%	29%	42%	25%
Citations (13)	17%	25%	32%	26%
Language (14)	3%	48%	41%	9%
Style of Delivery (15)	3%	29%	53%	16%
Vocal Delivery (16)	3%	36%	43%	19%
Physical Delivery (17)	3%	41%	39%	18%

Distribution of Scores - Upper Class Students

Figures 2a-d: Frequency Distribution of Scores for Female versus Male Upper Class Students

Structural Items - Introduction

Structural Items - Body and Conclusion

Thesis-Evidence-Citations

F - thesis	17%
M - thesis	14%
F - types of support material	31%
M - types of support material	9%
F - variety of sources	33%
M - variety of sources	7% ... 13%
F - citations	16% ... 36%
M - citations	19% ... 12%

Level 1 Level 2 Level 3 Level 4

Language - Style - Delivery

F - language/style	10%
M - language/style	8%
F - style of delivery	17%
M - style of delivery	14%
F - vocal delivery	21%
M - vocal delivery	6% ... 16%
F - physical delivery	20%
M - physical delivery	14%

Level 1 Level 2 Level 3 Level 4

Discussion and Next Steps

Overall, we are pleased with how many upper-level students had speeches with a proficiency level of 3 or 4, suggesting growth and that most upper-class students are generally effective communicators. The assessment also indicates that the intensive instruction in oral communication and rehearsal opportunities students receive in the First Year Program courses may need to be reinforced in upper-level courses.

While two-thirds of the instructors who completed the screening survey indicated they provide instruction on presenting beyond explaining the assignment, we heard informally from instructors that the rubric in and of itself has been a valuable teaching tool. In response, the Director of our Rhetoric Program has created a list of additional instructional resources for instructors (and students) which is available here.

One interesting finding is that direct assessment highlighted gender differences that are contrary to students' perceptions of their speaking ability. While males consistently rate their speaking ability as higher than females do, female students performed better in the direct assessment. It might be worthwhile for instructors to mention that self-confidence alone is not sufficient for being an effective speaker and that to achieve a high quality oral presentation all students need to prepare, practice, and do appropriate research.

Does our current assessment accurately portray the strength of oral communication outcomes of our students? We learned from collecting and rating speeches that not all oral communication assignments serve the same purpose, and thus, there will not be the same expectations for students. For example,

book reviews or poetry performances will be weak in the evidence/supporting material dimension, and speeches that are prepared and delivered in connection with a major research paper might yield uneven results depending on how far the research projects have progressed.   Therefore, we learned through this project that if we want to assess all the criteria on our oral communication rubric, we will need to be more specific in our requests for and videotaping of students' oral presentations.

On a more mechanical side, minor revisions to the oral communication rubric have been planned. Item 15 (types of supporting materials) appears redundant and could be dropped.   Regrouping the individual rubric items from the I-V organization to the three dimensions used in the analysis will also be evaluated for effectiveness.

Our survey data indicates that students more frequently give presentations than students at other institutions, and half of the instructors surveyed in our oral communication assessment indicated students give two graded speeches in their classes alone. An interesting research question for future oral communication assessment is whether students become more effective speakers through practicing more frequently with less preparation time or through fewer speaking assignments that might have greater preparation and higher expectations? This is a question the Assessment Committee has also discussed with respect to writing skills.

Finally, this project reinforced previous findings on the validity of asking instructors who teach the courses to also complete assessment as there was a great deal of consistency between ratings of members of the assessment committee and the course instructors. This gives us confidence to proceed with more assessments that ask instructors to do their own scoring and use them as single raters, as long as they are properly trained in norming sessions. We are looking forward to continuing our work on both improving the assessment tool and the analysis, including more longitudinal assessment.