

Speech Assessment Report

Fall 2019

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1 INTRODUCTION

Florida SouthWestern's Communication Studies Department has employed a common rubric used by all faculty as a means to evaluate an agreed upon series of student level outcomes. With a goal towards increasing student oral communication achievement, faculty have focused on a series of Student Learning Objectives (SLOs) using the rubric dimensions Introduction, Organization, Support, Oral Documentation, Language, NV-Vocal, NV-Physical, Presentation Media, Attire, and Conclusion, in a formative speech common assessment. Additional department goals for assessment include comparing results of SPC 1017 *Fundamentals of Speech Communication*, with that of SPC 2608 *Introduction to Public Speaking*, and comparisons by campus, dual enrollment (concurrent)/traditional, and online/traditional, when applicable. These correlative measures will serve as support for instructive improvement (Cole et al., 2011; Elder and Paul, 2007).

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2 LEARNING OBJECTIVES, OUTCOMES, AND DESCRIPTIVE STATISTICS

Using common rubric criterion as an assessment method, in the 2014-15 academic year the FSW Speech faculty defined three areas of interest for evaluation that apply to both SPC 1017 and SPC 2608 and set goals appropriately. As results are gathered and reviewed, these three areas of interest have shifted over the years to address areas of greatest concern. For AY 2019-20, these areas are incorporating oral citations, nonverbal physical behaviors, and the effect of the outline on the speech itself.

The rubric dimensions are modeled on a 5-point scale where a score of 0 indicates "Insufficient", 1 indicates "Beginning" level, 2 indicates the "Developing" level, 3 indicates the "Accomplished" level, and 4 indicates the "Exemplary", or highest level. The SLOs and their measure of success are:

SLO1: Students will know how to avoid plagiarizing when speaking by incorporating an oral citation that includes appropriate information. The faculty established measure of success for this SLO is a rating of "Developing" or higher for 70% of the students.

SLO2: Students will be able to incorporate appropriate nonverbal physical behaviors. The faculty established measure of success for this SLO is a rating of "Developing" or higher in "NV-Physical" for 70% of the students for the Informative Speech.

SLO3: Students will improve in the common outcomes of the Informative Speech Outline and the Informative Speech. These areas include Introduction, Oral documentation, Support, Organization, and Conclusion.

2.1 SPC 1017

2.1.1 Learning Objectives

For the fall 2019 assessment, 712 artifacts (based on highest rubric dimension count, not highest overall scores collected) were collected for SPC 1017 from 36 of 54 course sections. In some cases, rubric scores could either not be accessed or located. The faculty established goal for SLO1, a rating of “Developing” or higher (≥ 2) in the Informative Speech rubric dimension “Oral Documentation” for 70% of the students was met. Fall 2019 artifacts exhibit 87% of artifacts scored level 2 or greater (Table 1). The faculty established goal for SLO2, a rating of “Developing” or higher (≥ 2) in the Informative Speech rubric dimension “NV-Physical” for 70% of the students was met. Fall 2019 artifacts exhibit 95% scored level 2 or greater. Results for SLO3 require a somewhat different reporting process and, for convenience and clarity, are discussed below and listed in Table 2.

Rubric Score	Introduction	Organization	Support	Oral Documentation	Language	NV-Vocal	NV-Physical	Presentation Media	Attire	Conclusion
Developing or higher	93%	97%	97%	87%	99%	98%	95%	93%	98%	94%
4	50.6%	55.0%	60.6%	45.4%	69.3%	38.3%	31.5%	49.2%	83.8%	46.0%
3	27.8%	32.1%	27.8%	29.7%	23.9%	36.0%	36.3%	32.8%	8.9%	33.6%
2	15.0%	10.1%	8.2%	12.2%	6.0%	23.3%	27.4%	11.1%	5.1%	14.4%
1	5.3%	1.7%	2.3%	4.9%	0.1%	1.8%	3.7%	2.8%	1.3%	3.0%
0	1.3%	1.1%	1.1%	7.7%	0.6%	0.6%	1.1%	4.1%	1.0%	3.1%

Table 1. Percentage of student achievement level by rubric dimension for Informative Speech (includes percentage of students scoring in developmental level or higher as per SLOs). Rubric dimensions identified in SLOs in blue.

Rubric Score	Introduction	Organization	Support	Oral Documentation	Conclusion
Developing or higher	95%	97%	96%	89%	97%
4	59.3%	76.1%	58.8%	43.8%	60.5%
3	28.4%	13.2%	25.1%	31.2%	26.5%
2	7.7%	8.1%	12.3%	13.6%	9.7%
1	3.4%	1.2%	2.2%	4.6%	1.5%
0	1.2%	1.3%	1.6%	6.8%	1.8%

Table 2. Percentage of student achievement level by rubric dimension for Outline that are common to Informative Speech for (includes percentage of students scoring in developmental level or higher as per SLOs).

The faculty established goal for SLO3, students will improve in the common outcomes of the Informative Speech Outline and the Informative Speech was met. To effectively illustrate this, two separate descriptions are provided. First, Table 3 describes mean scores by dimension and overall score for both Outline and Informative Speech.

From these results improvement is exhibited in 2 of 5 dimensions. It is somewhat misleading, however, to compare improvement/decline percentages based on all data. Inherently, those scoring ‘4’ on the Outline can only decline or remain unchanged. Similarly, those scoring ‘0’ can only improve or remain unchanged. As the purpose of this study is to determine where improvement occurs and why, it may be

more prudent to compare improvement/decline percentages and exclude those scoring 4s on the Outline score (bottom three rows, Table 3). Based on these results, improvement is exhibited in all dimensions and overall score.

Rubric Score	Introduction	Organization	Support	Oral Documentation	Conclusion	OVERALL
<i>All artifacts</i>						
Outline Mean	8.8	9.2	8.7	7.8	8.8	84.7
Informative Speech Mean	8.5	8.8	8.9	8.0	8.3	84.5
<i>Change from Outline to Speech</i>	-0.3	-0.4	0.2	0.2	-0.5	-0.2
<i>Only artifacts that did not score 4/4 on outline</i>						
Outline Mean	7.1	6.6	7.0	6.4	7.0	83.3
Informative Speech Mean	7.4	7.7	8.3	7.4	7.4	83.6
<i>Change from Outline to Speech</i>	0.3	1.1	1.3	1.0	0.4	0.3

Table 3. Comparison of changes in mean score from Outline rubric dimensions to Informative Speech.

A second way of describing results for this type of study is to review the percent improvements of common artifacts (originating from the same student) as shown in Figure 1 denoted by the black bar along with percent declines denoted by the red bar. From this figure, only the “Support” and “Oral Documentation” dimensions exhibit net improvements by students. The others exhibit declines. This may be owing in part to some sections which appear to have near perfect scores, thereby skewing results somewhat. As with Table 3, we compare only those artifacts which did not score perfect results on the Outline (Figure 2). From this figure, as with Table 3 above using extracted data, all five dimensions exhibit net improvement ranging from 36.2% in “Conclusion” to 53.5% in “Support.”

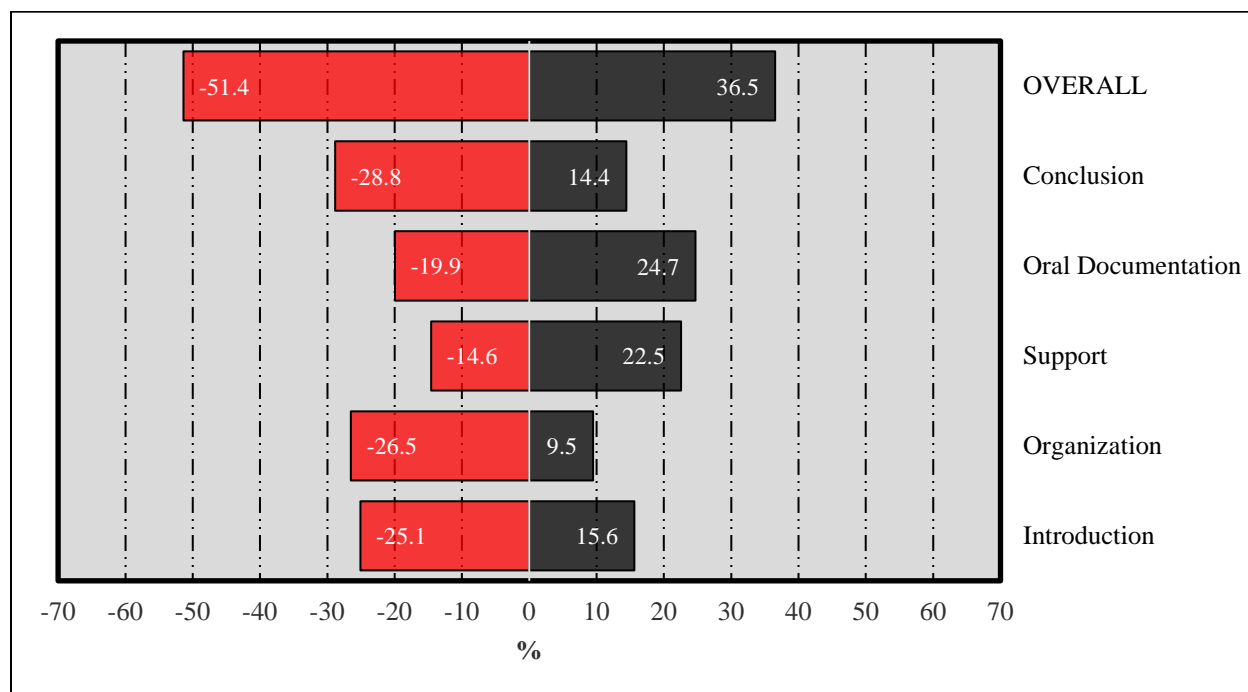


Figure 1. Percent increase/decrease from Outline to Speech by common rubric dimension.

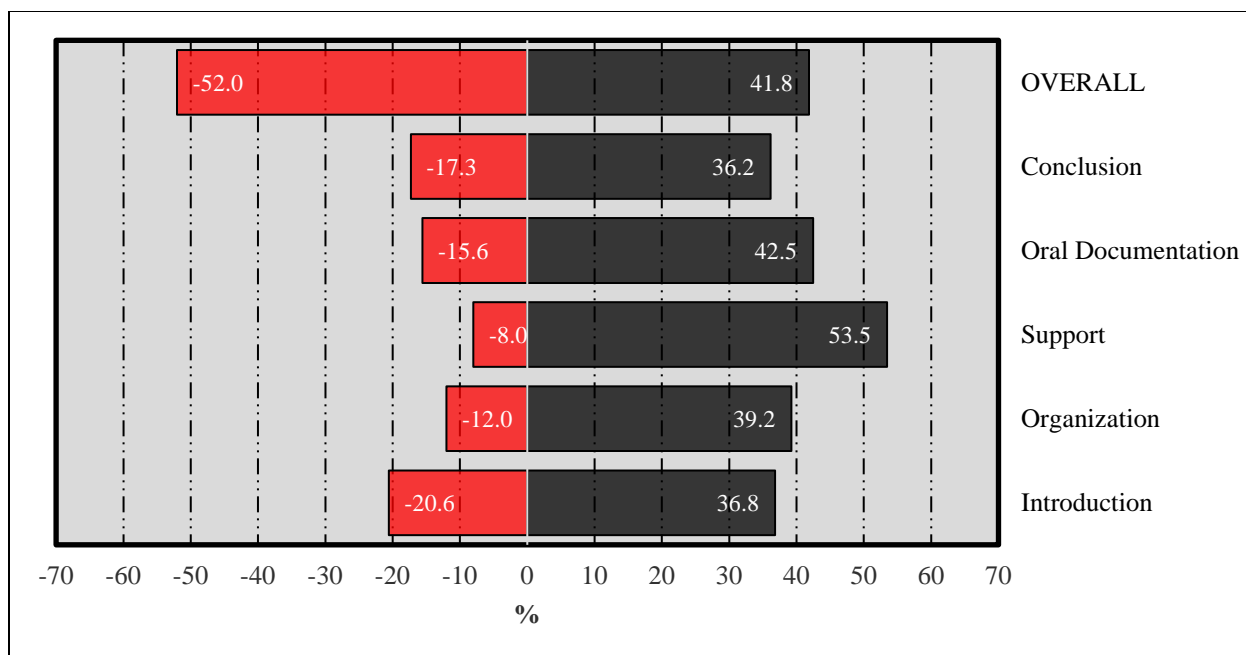


Figure 2. Percent increase/decrease from Outline to Speech by common rubric dimension excluding those artifacts scoring perfect 4/4 on Outline.

2.1.2 Descriptive Statistics & Longitudinal Data

Descriptive statistics for SPC 1017 artifacts for both Outline and Informative Speech can be found in Tables 4 and 5. Note that comparative means in Tables 2 and 3 above may differ from those in Tables 4 and 5 as the comparative study includes common artifacts only. If a student did not complete both Outline and Informative Speech, a comparative score could not be completed and is thus excluded in results for Tables 2 and 3. Tables 4 and 5 exhibit all artifacts. A histogram of artifact scores for both Outline and Speech is shown in Figure 3. Both speech and outline exhibit a negative shift in scores compared with the outline, likely related to a heightened number of perfect scores in the outline which is visible in the spike at the 99-100 scoring bin.

	<i>Introduction</i>	<i>Organization</i>	<i>Support</i>	<i>Oral Documentation</i>	<i>Language</i>	<i>NV-Vocal</i>	<i>NV-Physical</i>	<i>Presentation Media</i>	<i>Attire</i>	<i>Conclusion</i>
n	712	711	711	711	711	711	711	710	710	709
Max	10	10	10	10	10	10	10	10	10	10
Min	0	0	0	0	0	0	0	0	0	0
Mode	10	10	10	10	10	10	8	10	10	10
Mean	8.3	8.7	8.8	7.8	9.2	8.2	7.8	8.3	9.4	8.2
Standard deviation	2.16	1.80	1.82	2.91	1.39	1.81	1.99	2.38	1.57	2.26

Table 4. Descriptive statistics for SPC 1017 Informative Speech.

Rubric Score	Introduction	Organization	Support	Oral Documentation	Conclusion
n	742	741	740	740	740
Max	10	10	10	10	10
Min	0	0	0	0	0
Mode	10	10	10	10	10
Mean	8.8	9.2	8.7	7.8	8.8
Standard deviation	1.93	1.77	1.99	2.78	1.92

Table 5. Descriptive statistics for SPC 1017 Outline.

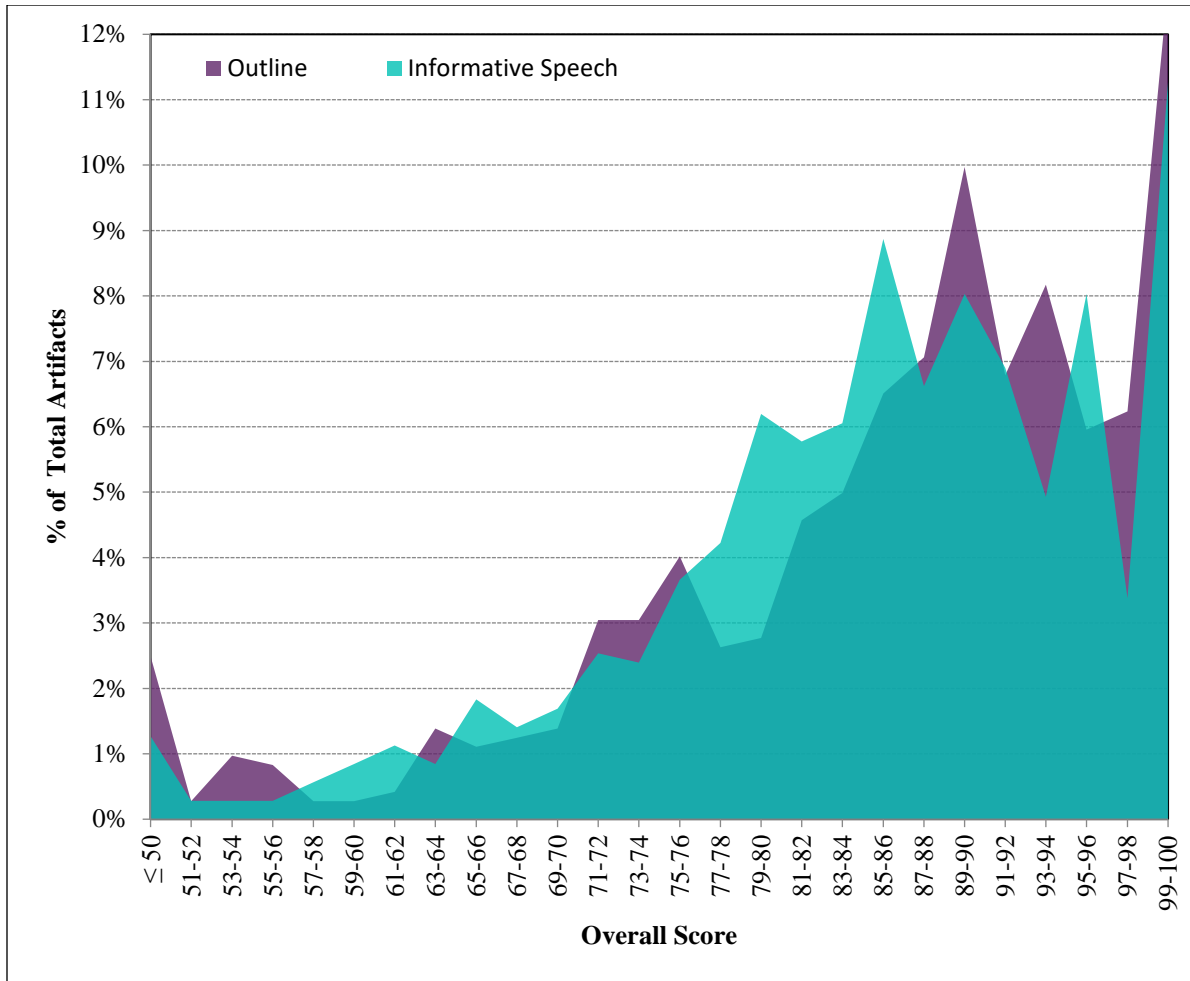


Figure 3. Overall score distribution for Outline (purple) and Speech (aqua) for fall 2019.

To describe the behavior of the rubric dimensions for the Informative Speech based on overall achievement a color map, or binary raster image was created by calculating the mean scores for each dimension as a function of combined score (Figure 4). To create this image the rubric scores (4, 3, 2, 1, or 0) for each artifact was grouped based on combined raw rubric score (10 dimensions x maximum rubric level of 4 = 40 overall points). The color represents the mean rubric score achieved in each dimension based on the combined score as shown in the x-axis.

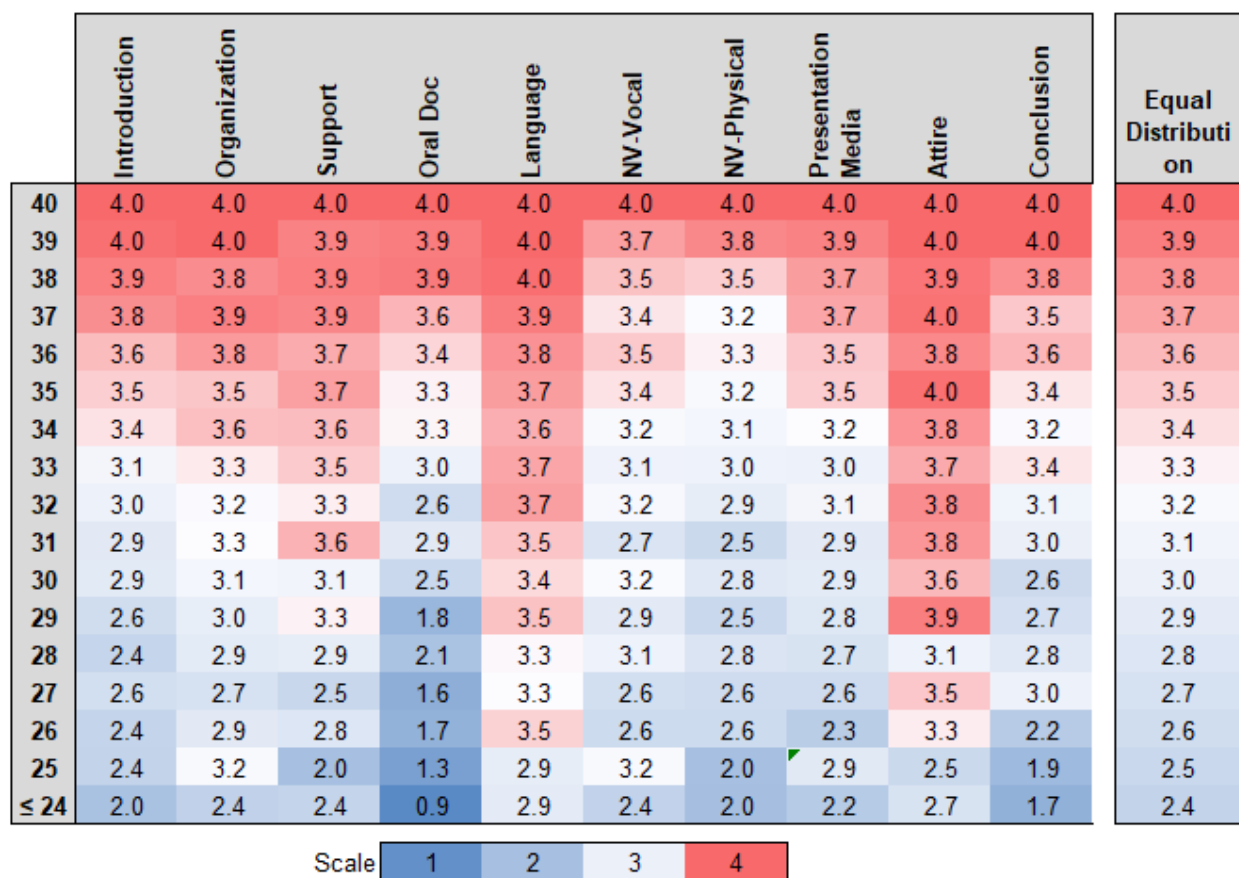


Figure 4. Colormap of mean scores for each rubric dimension (range: 0-4) based on overall rubric score (combined rubric score of all dimensions, max=40) for SPC 1017. (Right Sidebar) Comparison rubric dimension if dimension score is the same as overall (i.e. artifact overall score is equally distributed across all sections). A rubric dimension with hotter colors (reds) means that dimension achievement exceeds the overall score and is an area of strength. An exam section with colder colors (blues) means that section achievement is lower than the overall score and is therefore an area of weakness.

A review of the colormap in Figure 4 shows that at 38/40 and above (average rubric score of 3.8 or higher) all dimensions fair relatively equally (hot colors fairly evenly distributed). When overall rubric scores range from 31-37, the “Organization,” “Support,” “Language,” and “Attire” dimensions exhibit strong scores even when the overall score is somewhat lower. For example, at an overall score of 31, those four dimensions exhibit average scores ranging from 3.3 to 3.8, while other dimensions range from 2.5 to 3.0. Moreover, the “Language” and “Attire” attributes remains high even at very low overall scores. At an overall score of 27, for example, “Language” and “Attire” exhibit an average of 3.3 and 3.5, respectively, while all other categories range from 1.6 to 3.0. Lastly, when overall rubric scores range 30 or below, “Oral Documentation” is exceptionally weaker than the others.

A comparison of Informative Speech results over time is shown in Figure 5 below. The “Oral Documentation” dimension is consistently the lowest dimension over time, scoring the lowest score in all terms since the study began. The “Attire” dimension is consistently the highest, scoring the highest score in 10 of 11 terms. Most dimensions exhibit a dip between fall 2015 and fall 2017 making improvements over time difficult to discern. The “NV-Vocal” and “Organization” exhibit modest improvement since fall 2017, but this is only slightly higher than results from fall 2014.

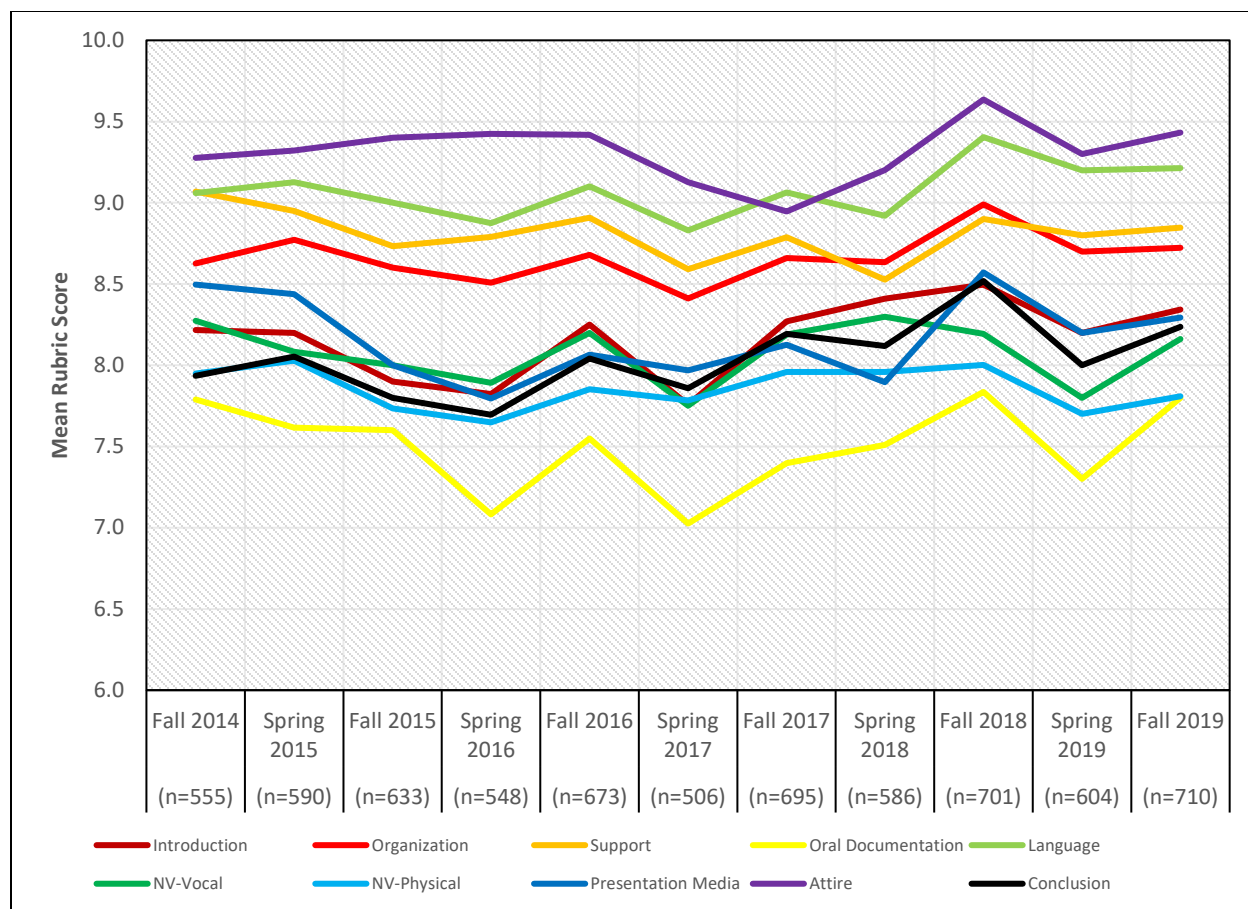


Figure 5. Comparison of mean scores for Informative Speech through time. *The “Support”, “NV-Physical”, “Presentation Media”, and “Attire” dimensions maximum rubric score was altered beginning fall 2017. The results from previous terms have been normalized to the new dimension maximum for comparative purposes.

2.2 SPC 2608

2.2.1 Learning Objectives

For the fall 2019 assessment, 162 artifacts (based on highest rubric dimension count, not highest overall scores collected) were collected for SPC 2608 from 10 of 17 course sections. In some cases, rubric scores could either not be accessed or located. In other sections, old versions of the rubric scoring were used or maximum scores differed from the common rubric. The faculty established goal for SLO1, a rating of “Developing” or higher (≥ 2) in the Informative Speech rubric dimension “Oral Documentation” for 70% of the students was met. Fall 2019 artifacts exhibit 85% of artifacts scored level 2 or greater (Table 6). The faculty established goal for SLO2, a rating of “Developing” or higher (≥ 2) in the Informative Speech rubric dimension “NV-Physical” for 70% of the students was met. Fall 2019 artifacts exhibit 94% scored level 2 or greater. Results for SLO3 require a somewhat different reporting process and, for convenience and clarity, are discussed below and listed in Table 7.

Rubric Score	Introduction	Organization	Support	Oral Documentation	Language	NV-Vocal	NV-Physical	Presentation Media	Attire	Conclusion
Developing or higher	93%	98%	96%	85%	99%	98%	94%	96%	99%	93%
4	60.5%	70.4%	42.0%	48.1%	84.0%	58.0%	34.6%	81.5%	94.4%	62.3%
3	24.1%	20.4%	43.8%	24.7%	13.0%	26.5%	19.8%	8.6%	3.7%	24.1%
2	8.6%	6.8%	10.5%	11.7%	1.9%	13.0%	39.5%	5.6%	0.6%	6.8%
1	5.6%	1.2%	1.9%	8.6%	0.0%	1.2%	3.7%	1.9%	0.0%	2.5%
0	1.2%	1.2%	1.9%	6.8%	1.2%	1.2%	2.5%	2.5%	1.2%	4.3%

Table 6. Percentage of student achievement level by rubric dimension (includes percentage of students scoring in developmental level or higher as per SLOs) for SPC 2608. Rubric dimensions identified in SLOs in blue.

Rubric Score	Introduction	Organization	Support	Oral Documentation	Conclusion
Developing or higher	95%	100%	98%	87%	97%
4	65.0%	90.0%	25.8%	37.5%	68.3%
3	24.2%	8.3%	53.3%	34.2%	20.0%
2	5.8%	1.7%	18.3%	15.0%	8.3%
1	3.3%	0.0%	2.5%	7.5%	1.7%
0	1.7%	0.0%	0.0%	5.8%	1.7%

Table 7. Percentage of student achievement level by rubric dimension for Outline that are common to Informative Speech for (includes percentage of students scoring in developmental level or higher as per SLOs).

The faculty established goal for SLO3, students will improve in the common outcomes of the Informative Speech Outline and the Informative Speech was met. To effectively illustrate this, again two separate descriptions are provided. First, Table 8 describes mean scores by dimension and overall score for both Outline and Informative Speech.

From these results improvement is exhibited in 2 of 5 dimensions. As with SPC 1017, it is somewhat misleading to compare improvement/decline percentages based on all data. As such, the bottom three rows of Table 8 compare improvement/decline percentages and excludes those scoring 4s on the Outline score (bottom row, Table 8). Based on these results, improvement is exhibited in 5 of 5 dimensions and the overall score.

Rubric Score	Introduction	Organization	Support	Oral Documentation	Conclusion	OVERALL
<i>All artifacts</i>						
Outline Mean	8.9	9.8	8.0	7.6	9.0	76.4
Informative Speech Mean	8.8	8.7	8.3	7.9	8.7	86.3
<i>Change from Outline to Speech</i>	<i>-0.1</i>	<i>-1.1</i>	<i>0.3</i>	<i>0.3</i>	<i>-0.3</i>	<i>9.9</i>
<i>Only artifacts that did not score 4/4 on outline</i>						
Outline Mean	6.8	7.7	7.3	6.2	6.7	75.8
Informative Speech Mean	7.8	8.2	7.7	7.5	7.9	85.4
<i>Change from Outline to Speech</i>	<i>1.0</i>	<i>0.5</i>	<i>0.4</i>	<i>1.3</i>	<i>1.2</i>	<i>9.6</i>

Table 8. Comparison of changes in mean score from Outline rubric dimensions to Informative Speech.

As with SPC 1017 above, a second way of describing results for this type of study is to review the percent improvements of common artifacts (originating from the same student) as shown in Figure 6 denoted by the black bar along with percent declines denoted by the red bar. From this figure, the "Introduction," "Support," "Oral Documentation," and "Conclusion" exhibit net improvements by students (as well as the overall). And as before, we compare only those artifacts which did not score perfect results on the Outline (Figure 7). From this figure, as with Table 8 above using extracted data, all five dimensions exhibit net improvement ranging from 23% in "Support" to 56% in "Oral Documentation".

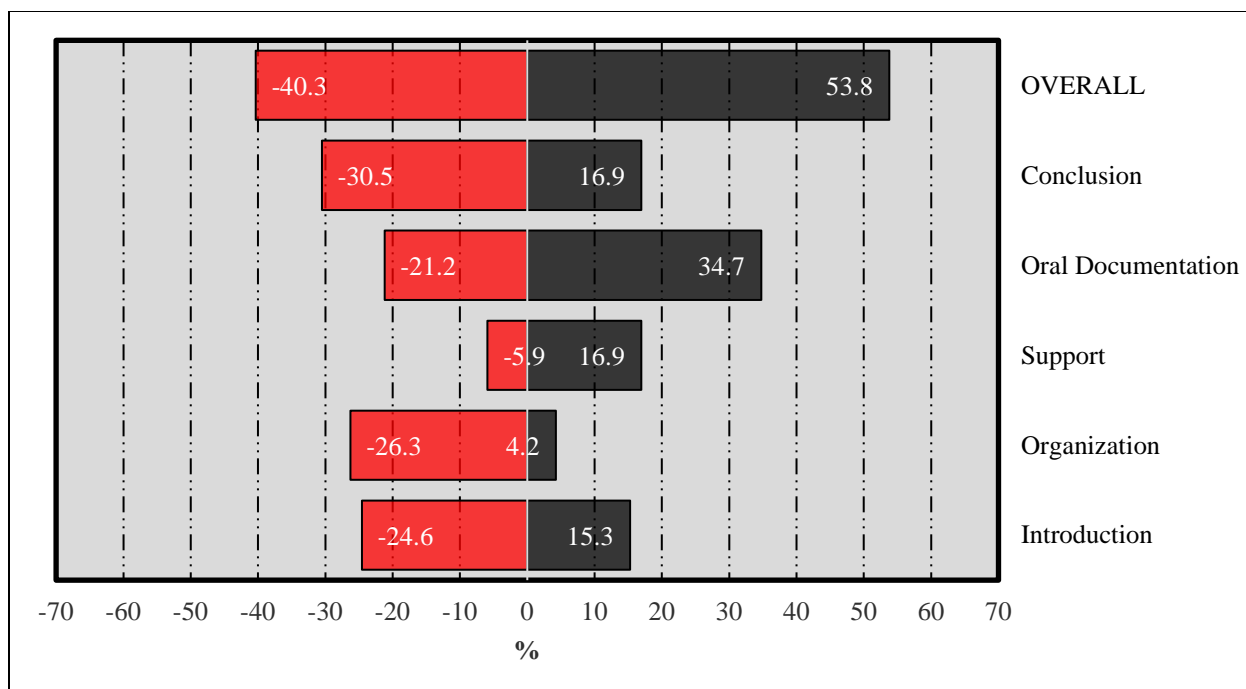


Figure 6. Percent increase/decrease from Outline to Speech by common rubric dimension.

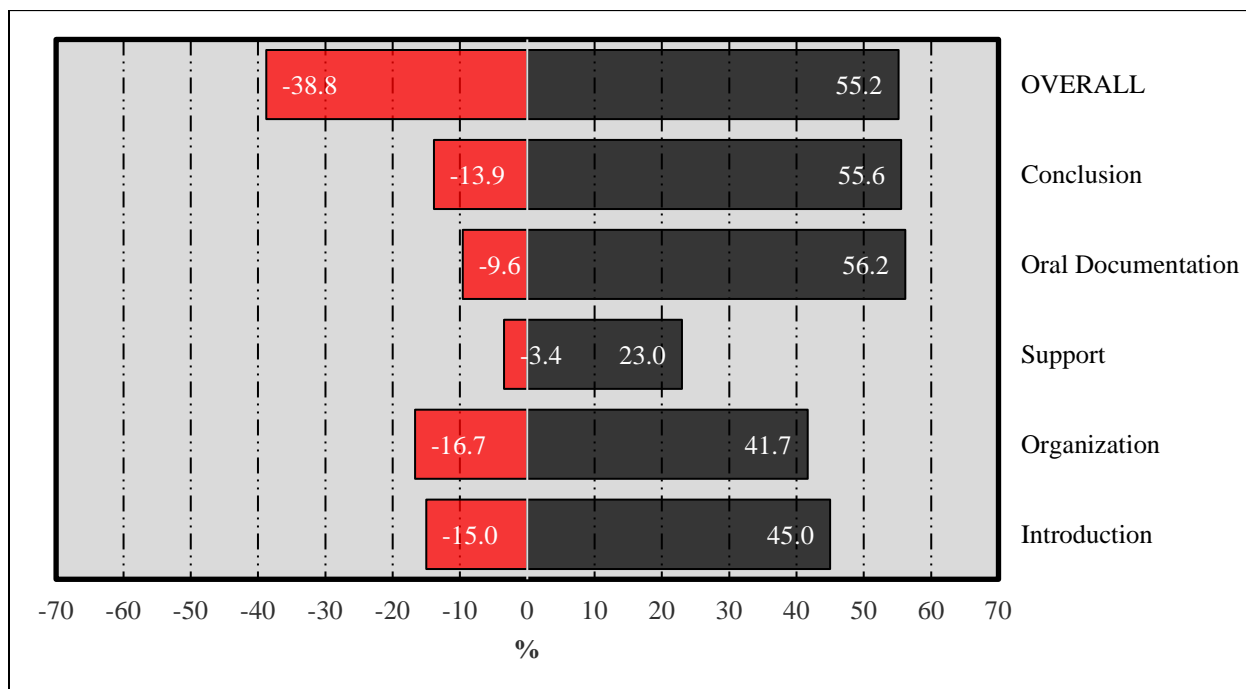


Figure 7. Percent increase/decrease from Outline to Speech by common rubric dimension excluding those artifacts scoring perfect 4/4 on Outline.

2.2.2 Descriptive Statistics & Longitudinal Data

Descriptive statistics for SPC 2608 artifacts for both Outline and Informative Speech can be found in Tables 9 and 10. Note that comparative means in Tables 6 and 7 above may differ from those in Tables 9 and 10 as the comparative study includes common artifacts only. If a student did not complete both

Outline and Informative Speech, a comparative score could not be completed and is thus excluded in results for Tables 6 and 7. Tables 9 and 10 exhibit all artifacts. A histogram of artifact scores for both Outline and Speech is shown in Figure 8. The Speech data exhibit a large percentage of data scores ranging from 87-100 (68% of all scores are in this range). By comparison, that same range in Outline scores is only 46% of all scores.

	<i>Introduction</i>	<i>Organization</i>	<i>Support</i>	<i>Oral Documentation</i>	<i>Language</i>	<i>NV-Vocal</i>	<i>NV-Physical</i>	<i>Presentation Media</i>	<i>Attire</i>	<i>Conclusion</i>
n	162	162	162	162	162	162	162	162	162	162
Max	10	10	10	10	10	10	10	10	10	10
Min	0	0	0	0	0	0	0	0	0	0
Mode	10	10	8	10	10	10	6	10	10	10
Mean	8.7	9.1	8.4	7.8	9.5	8.7	7.5	9.2	9.8	8.6
Standard deviation	2.13	1.72	1.90	2.98	1.36	1.85	2.30	2.01	1.20	2.40

Table 9. Descriptive statistics for SPC 2608.

Rubric Score	Introduction	Organization	Support	Oral Documentation	Conclusion
n	120	120	120	120	120
Max	10	10	10	10	10
Min	0	6	3	0	0
Mode	10	10	8	8	10
Mean	8.9	9.8	8.0	8.0	9.0
Standard deviation	2.00	0.74	1.55	1.55	1.90

Table 10. Descriptive statistics for SPC 2608 Outline.

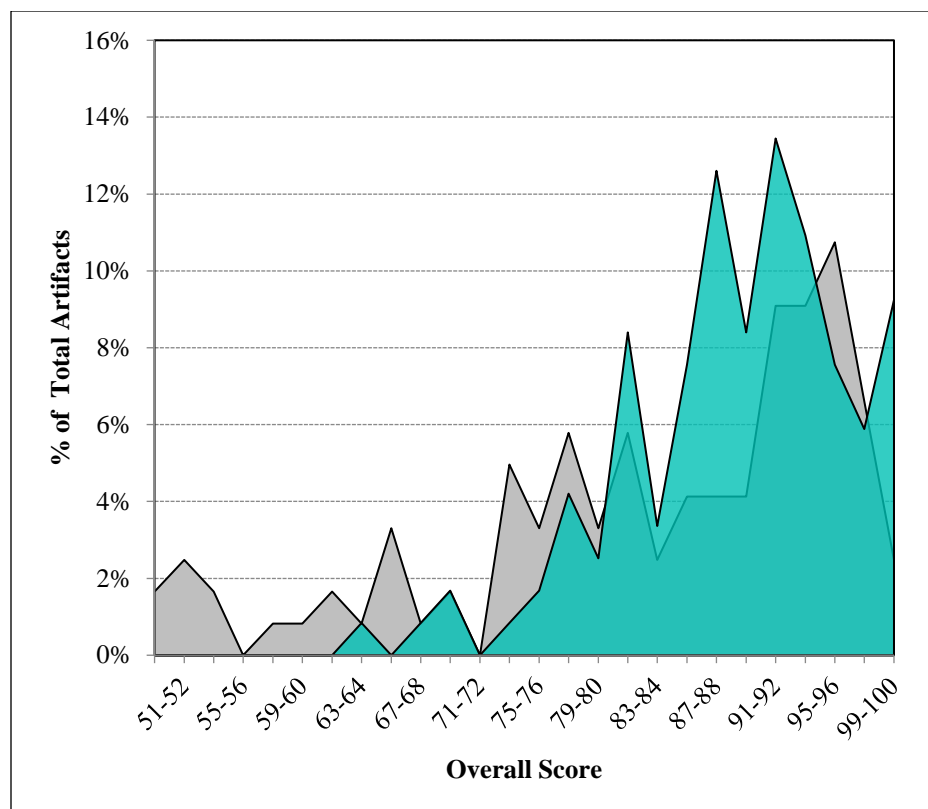


Figure 8. Overall score distribution for Outline (gray) and Speech (aqua).

To describe the behavior of the rubric dimensions based on overall achievement a color map, or binary raster image was created by calculating the mean scores for each dimension as a function of combined score (Figure 9). To create this image the rubric scores (4, 3, 2, 1, or 0) for each artifact was grouped based on combined raw rubric score (10 dimensions x maximum rubric level of 4 = 40 overall points). The color represents the mean rubric score achieved in each dimension based on the combined score as shown in the x-axis.

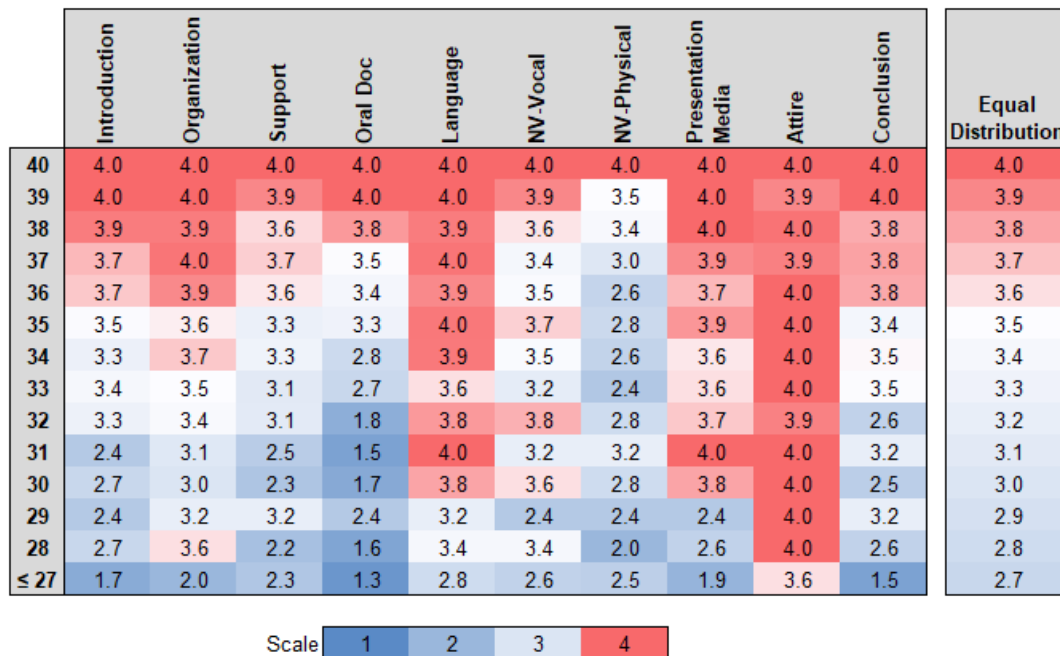


Figure 9. Colormap of mean scores for each rubric dimension (range: 0-4) based on overall rubric score (combined rubric score of all dimensions, max=40) for SPC 2608. (Right Sidebar) Comparison rubric dimension if dimension score is the same as overall (i.e. artifact overall score is equally distributed across all sections). A rubric dimension with hotter colors (reds) means that dimension achievement exceeds the overall score and is an area of strength. An exam section with colder colors (blues) means that section achievement is lower than the overall score and is therefore an area of weakness.

A review of the colormap in Figure 9 shows that the “Language,” “Attire,” and “Presentation Media” dimensions remain strong even at low overall scores. For example, at 30/40, the mean score for those three are 3.8/4, 4.0/4, and 3.8/4, respectively. By comparison, all other dimensions range from 1.7/4 to 3.6/4. The “NV-Physical” dimension exhibits the steepest drop-off at higher overall scores. At 36/40, for example, “NV-Physical” is 2.6/4 when all other dimensions are 3.4/4 or higher.

A comparison of Informative Speech results over time is shown in Figure 10 below. Over time, the “Attire” dimension has been the highest achieving in 11 of 11 terms. The “Oral documentation” dimension has been the lowest in 6 of 11 terms. The “NV-Physical” had shown vast improvement since a dip in fall 2017, but has since dropped again in the most recent term to the lowest it has been since the study began (7.5/10). Perhaps the most consistent growth over time comes in “Language” dimension which has risen from a consistent 8.5 or 8.6 in AY 2014-2015 to consistent 9.3 to 9.4 range.

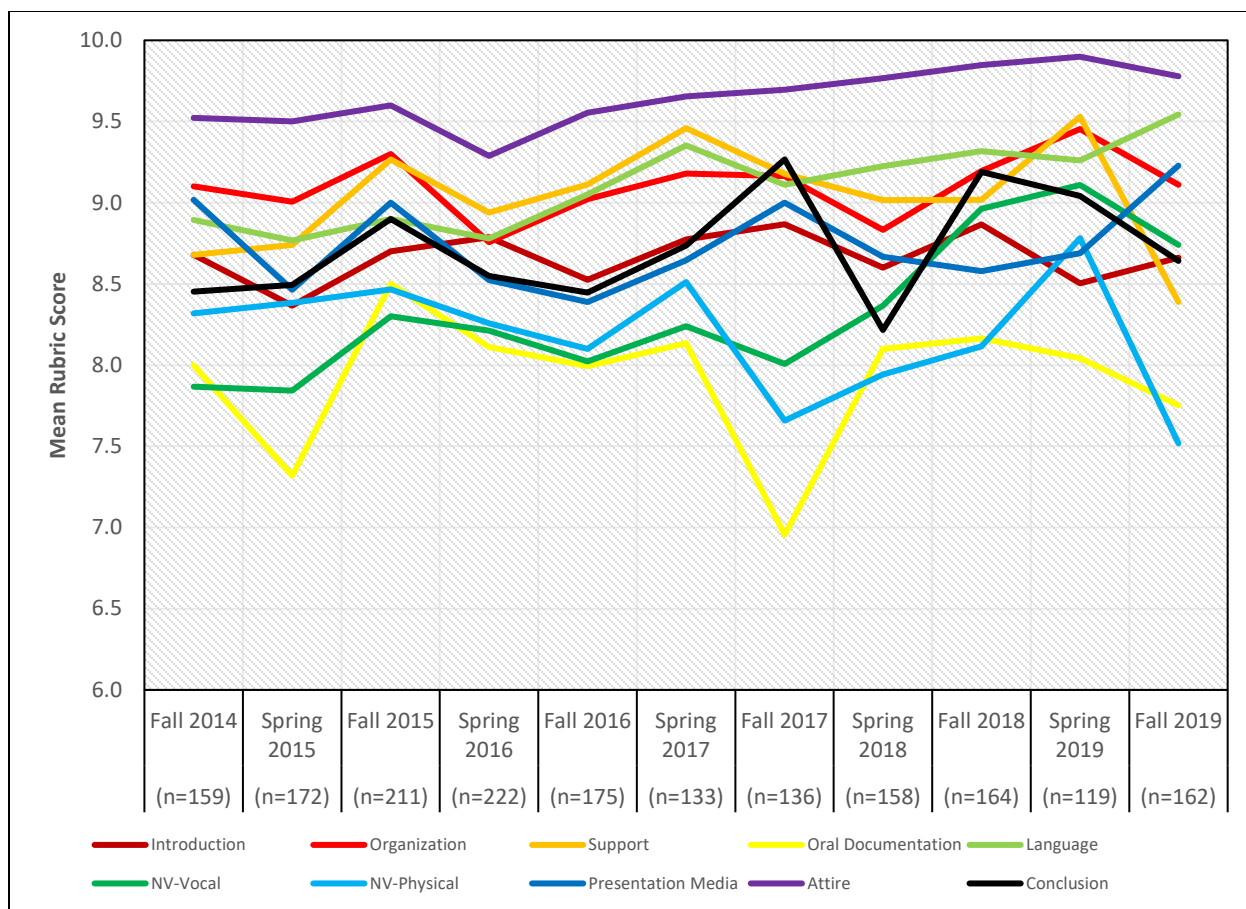


Figure 10. Comparison of mean scores for Informative Speech through time.

3 EXPLORATORY ANALYSIS AND SIGNIFICANCE TESTING

Multiple comparisons of artifact scores across varying formats, campuses, and student types were made in order to add depth to the distribution of the artifacts by achievement level. Each course was divided into the appropriate subgroups to perform the analysis. Where possible, additional methods of analysis were conducted to provide a broader picture of these comparisons.

3.1 SPC 1017

3.1.1 Dual Enrollment (Concurrent) to non-Dual Enrollment Comparison

No dual enrollment sections of SPC 1017 were offered during fall 2019 so no comparison study could be completed.

3.1.2 Online to Traditional Comparison

During the fall 2019 semester, 194 total online artifacts and 450 traditional artifacts were collected from SPC 1017 course sections. A comparison of mean scores by rubric dimension is provided in Table 11 and a graphical representation is provided in Figure 11. Mean scores are higher for online courses in 4 of 10 dimensions. Differences in the means for all dimensions and overall score were tested for significance

using a Welch's t-test according to standard methods (Davis, 1973; McDonald, 2009; Wilkinson, 1999). Of these, "Support," "Oral Documentation," "Language," "NV-Physical", "Presentation Media," and "Attire" are statistically significantly different. Therefore, we must reject the null hypothesis that the differences in the means of the artifacts of the two course section types are equal to 0 for these dimensions, and we can conclude with a 95% confidence that the differences in scores are not solely due to chance.

	<i>Introduction</i>	<i>Organization</i>	<i>Support</i>	<i>Oral Documentation</i>	<i>Language</i>	<i>NV-Vocal</i>	<i>NV-Physical</i>	<i>Presentation Media</i>	<i>Attire</i>	<i>Conclusion</i>	<i>Combined Score</i>
<i>Rubric Max</i>	10	10	10	10	10	10	10	10	10	10	100
Online mean	8.7	8.8	8.5	8.0	9.0	8.1	8.2	7.2	9.1	8.6	84.0
Traditional mean	8.3	8.8	9.1	7.7	9.4	8.3	7.6	8.7	9.6	8.2	85.0
Effect Size	-0.14	0.04	0.26	-0.07	0.25	0.10	-0.23	0.47	0.29	-0.20	0.06
p-value	0.211	0.316	2.8×10^{-4}	0.014	1.6×10^{-4}	0.099	0.008	4.47×10^{-11}	3.6×10^{-5}	0.245	0.416

Table 11. Comparison of mean scores for Online and Traditional for SPC 1017. Bold denote statistically significant difference. Rubric dimensions identified in SLOs in blue. Positive effect sizes indicate a higher mean score for Traditional artifacts.

Effect size was calculated using a method devised by Rosenthal and Rosnow (1991) for meta-analytical purposes in potential comparisons with other institutions (Lipsey and Wilson, 1993). The statistically significant results exhibit what Cohen (1988) would consider ranges of small-to-medium effect sizes ranging from 0.04 to 0.47 (Table 11). In other words, non-overlap from online artifacts to traditional artifacts range from approximately 4% to 32%.

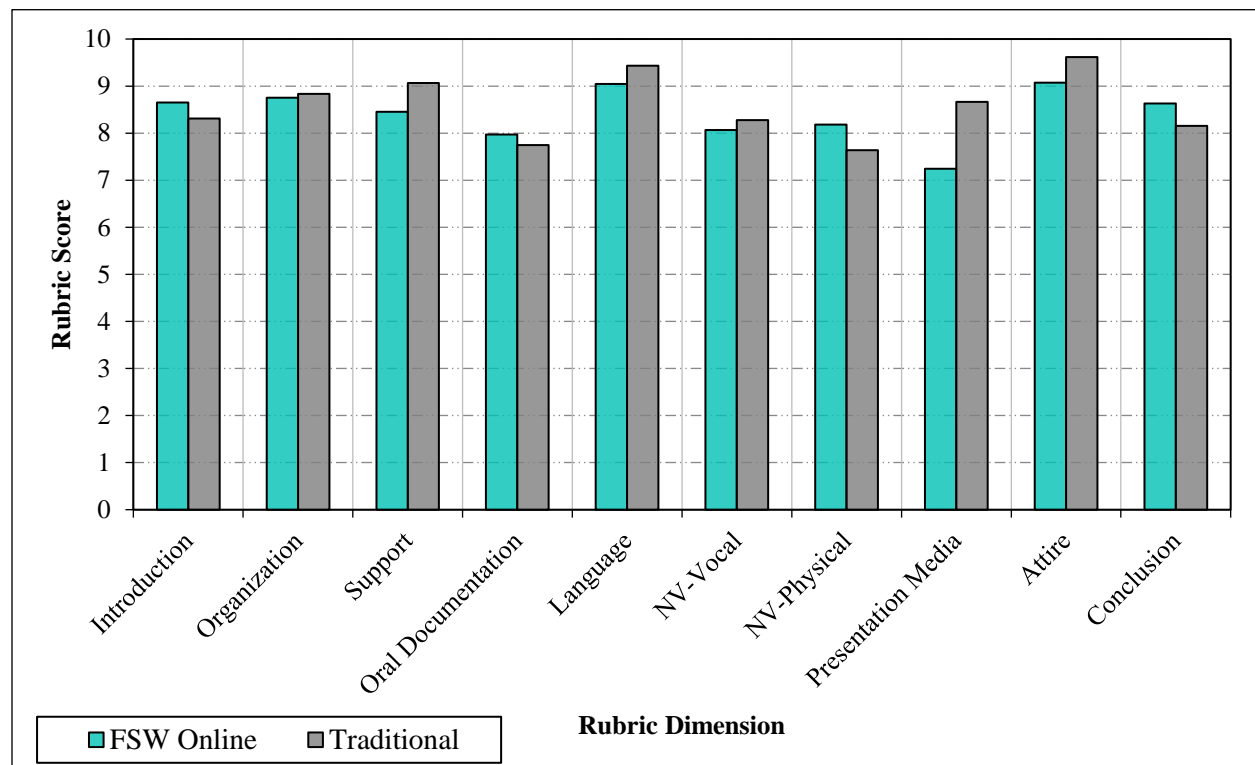


Figure 11. Comparison of mean scores for online (aqua) and traditional (gray) scores for SPC 1017.

3.1.3 Comparison by Campus/Site

Of the 709 artifacts collected from SPC 1017, 98 originated from the Charlotte campus, 136 from the Collier campus, 194 from FSW Online, 0 from the Hendry-Glades Center, and 357 from the Thomas Edison (Lee) campus. Scores by rubric dimension varied greatly across campuses. A comparison of mean scores by rubric dimension is provided in Table 12.

	<i>Introduction</i>	<i>Organization</i>	<i>Support</i>	<i>Oral Documentation</i>	<i>Language</i>	<i>NV-Vocal</i>	<i>NV-Physical</i>	<i>Presentation Media</i>	<i>Attire</i>	<i>Conclusion</i>	<i>Combined Score</i>
<i>Rubric Max</i>	10	10	10	10	10	10	10	10	10	10	100
Charlotte	9.5	9.6	9.9	9.3	9.9	7.8	7.7	9.0	9.6	9.0	91.6
Collier	7.3	9.0	9.5	7.5	9.8	7.0	6.7	8.2	9.4	7.8	82.2
FSW Online	8.7	8.8	8.5	8.0	9.0	8.1	8.2	7.2	9.1	8.6	84.0
Hndry Glades	~	~	~	~	~	~	~	~	~	~	~
Edison (Lee)	8.6	8.7	8.8	7.8	9.2	8.8	8.1	8.9	9.7	8.3	85.9

Table 12. Comparison of mean scores by site for SPC 1017. Bold denotes highest mean score in that dimension among all sites. Rubric dimensions identified in SLOs in blue.

The Charlotte campus exhibits higher scores in 7/10 dimensions. The Thomas Edison (Lee) campus exhibits the highest scores in 2/10 dimensions and the overall score. FSW Online exhibits the highest scores in 1/10 dimensions.

A plot comparing score distribution of the combined (overall) scores by site is presented in Figure 12. Collier, FSW Online, and Thomas Edison (Lee) exhibit similar distributions both in range and central tendency. Charlotte, however, exhibits a sharp peak at the 91-92 scoring bin. A similar peak for the Thomas Edison campus at 99-100 is visible, although only approximately half the size.

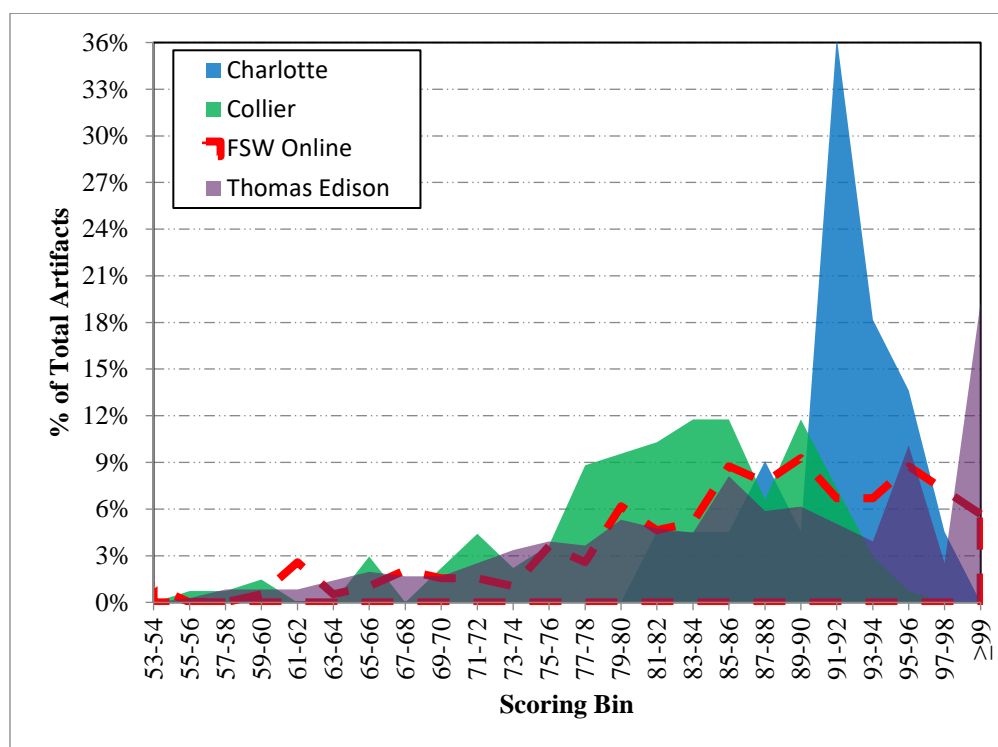


Figure 12. Comparison of artifact score distribution by site.

A one-way analysis of variance was used to compare means of the combined rubric scores at each site. Results of the ANOVA exhibit a statistically significant difference between sites (see Table 13). Therefore, we can reject the null hypothesis that the mean combined rubric scores at each site are equal to each other and we can conclude with a 95% confidence that the differences in scores are not solely due to chance.

Source of Variation	Sum of squared differences	df	Mean Squares	F _{obs}	p-value	F _{crit}
Between Sites	2471.6	3	823.9	4.95	0.002	2.62
Within Sites	117,337.4	705	166.4			
Total	119,809.0	708				

Table 13. Results of one-way ANOVA of combined rubric scores at each site for SPC 1017.

3.2 SPC 2608

3.2.1 Dual Enrollment (Concurrent) to non-Dual Enrollment Comparison

No dual enrollment sections were offered in fall 2019 and so no comparison study could be completed.

3.2.2 Online to Traditional Comparison

During the fall 2019 semester, 26 total online artifacts and 136 traditional artifacts were collected from SPC 2608 course sections. A comparison of mean scores by rubric dimension is provided in Table 14 and a graphical representation is provided in Figure 13. Mean scores are lower for online courses in 9 of 10 dimensions. Differences in the means for all dimensions and overall score were tested for significance using a Welch's t-test according to standard methods (Davis, 1973; McDonald, 2009; Wilkinson, 1999). The "Language" and "Presentation Media" dimensions are statistically significantly different. Therefore, we must reject the null hypothesis that the differences in the means of the artifacts of the two modalities in the statistically significant areas are equal to 0, and we can conclude with a 95% confidence that the differences in scores are not solely due to chance.

Effect size was calculated using a method devised by Rosenthal and Rosnow (1991) for meta-analytical purposes in potential comparisons with other institutions (Lipsey and Wilson, 1993). The statistically significant results exhibit a wide range of effect sizes from 0.1 to 0.6 (Table 14). In other words, non-overlap from online artifacts to traditional artifacts range from approximately 8% to 40%.

	Introduction	Organization	Support	Oral Documentation	Language	NV-Vocal	NV-Physical	Presentation Media	Attire	Conclusion	Combined Score
Rubric Max	10	10	10	10	10	10	10	10	10	10	100
Online mean	8.3	8.8	8.2	7.9	8.8	8.5	7.3	7.7	9.7	9.4	
Traditional mean	8.7	9.2	8.4	7.7	9.7	8.8	7.6	9.5	9.8	8.5	
Effect Size	0.13	0.14	0.11	-0.05	0.64	0.11	0.10	0.45	0.08	-0.49	0.31
p-value	0.254	0.190	0.327	0.385	1.2x10⁻⁵	0.273	0.320	0.004	0.190	0.078	0.114

Table 14. Comparison of mean scores for Online and Traditional for SPC 2608. Bold denote statistically significant difference. Rubric dimensions identified in SLOs in blue. Positive effect sizes indicate a higher mean score for Traditional artifacts. *Denote marginal significance as defined by Johnson (2013).

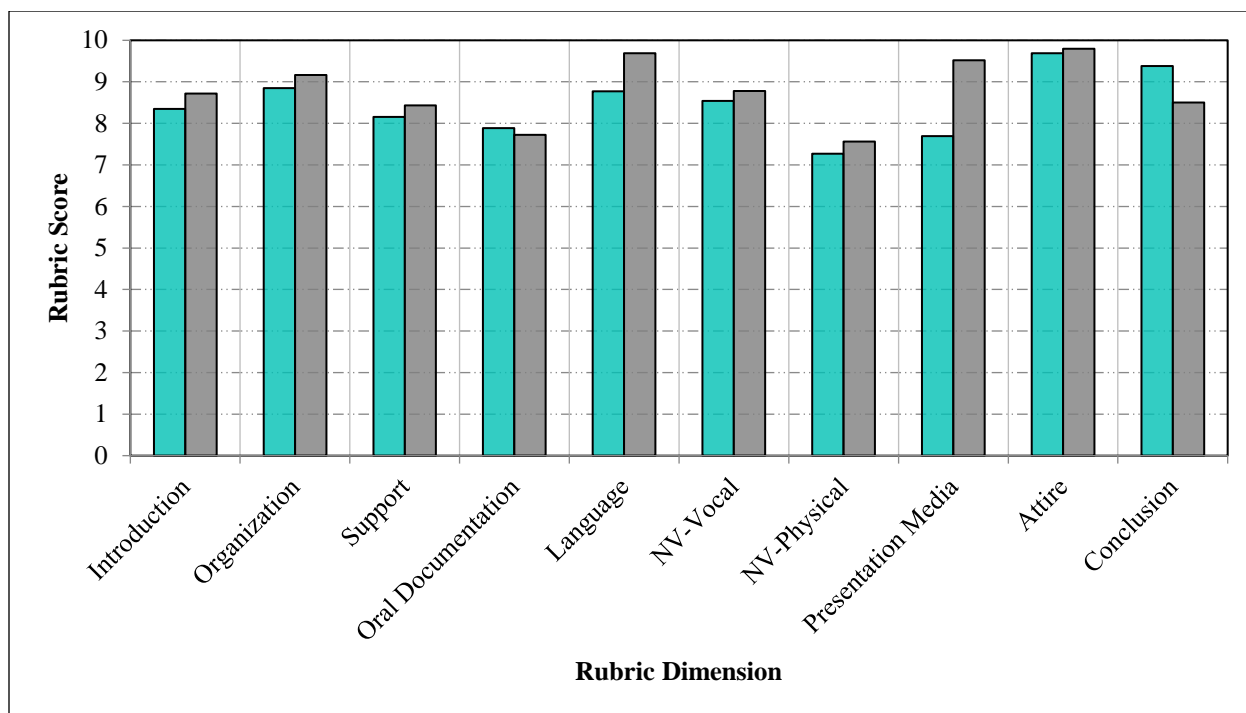


Figure 13. Comparison of mean scores for online (aqua) and traditional (gray) scores for SPC 2608.

3.2.3 Comparison by Campus/Site

Of the 709 artifacts collected from SPC 1017, 27 originated from the Charlotte campus, 0 from the Collier campus, 26 from FSW Online, 0 from the Hendry-Glades Center, and 109 from the Thomas Edison (Lee) campus. Scores by rubric dimension varied greatly across campuses. A comparison of mean scores by rubric dimension is provided in Table 15.

	<i>Introduction</i>	<i>Organization</i>	<i>Support</i>	<i>Oral Documentation</i>	<i>Language</i>	<i>NV-Vocal</i>	<i>NV-Physical</i>	<i>Presentation Media</i>	<i>Attire</i>	<i>Conclusion</i>	<i>Combined Score</i>
<i>Rubric Max</i>	10	10	10	10	10	10	10	10	10	10	100
Charlotte	9.6	9.7	9.6	8.6	9.8	8.2	7.6	9.9	9.7	9.2	91.9
Collier	~	~	~	~	~	~	~	~	~	~	~
FSW Online	8.3	8.8	8.2	7.9	8.8	8.5	7.3	7.7	9.7	9.4	83.9
Hndry Gldes	~	~	~	~	~	~	~	~	~	~	~
Edison (Lee)	8.5	9.0	8.1	7.5	9.7	8.9	7.6	9.4	9.8	8.3	89.1

Table 15. Comparison of mean scores by site for SPC 2608. Bold denotes highest mean score in that dimension among all sites. Rubric dimensions identified in SLOs in blue.

The Charlotte campus exhibits higher scores in 6/10 dimensions. The Thomas Edison (Lee) campus exhibits the highest scores in 3/10 dimensions and the overall score. FSW Online exhibits the highest scores in 1/10 dimensions.

A plot comparing score distribution of the combined (overall) scores by site is presented in Figure 14. The Charlotte campus exhibits a negative skewness (scores tend towards higher values) when compared with other sites. This is visible in Figure 14 where the bulk of the blue curve representing the Charlotte scores is above that of Thomas Edison and FSW Online.

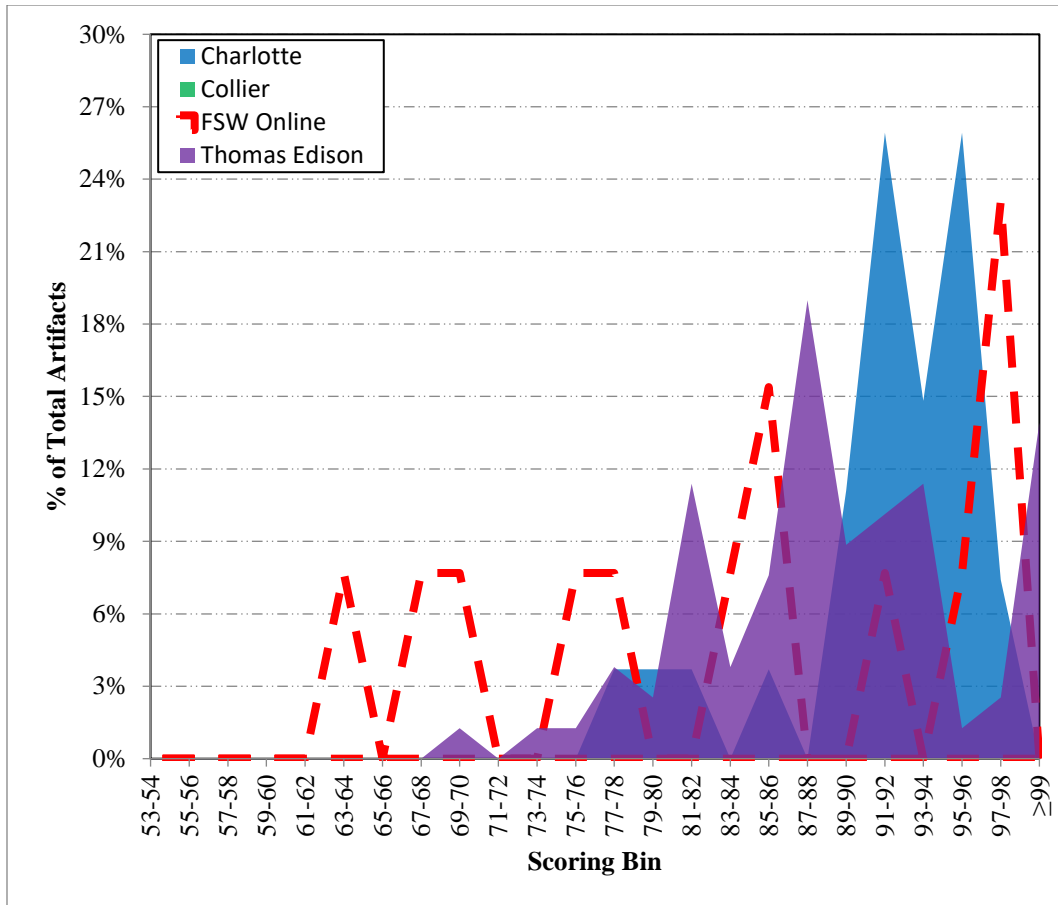


Figure 14. Comparison of artifact score distribution by site.

A one-way analysis of variance was used to compare means of the combined rubric scores at each site. Results of the ANOVA exhibit a statistically significant difference between sites (see Table 16). Therefore, we can reject the null hypothesis that the mean combined rubric scores at each site are equal to each other and we can conclude with a 95% confidence that the differences in scores are not solely due to chance.

Source of Variation	Sum of squared differences	df	Mean Squares	F _{obs}	p-value	F _{crit}
Between Sites	558.3	2	279.1	5.13	0.007	3.07
Within Sites	6316.3	116	54.5			
Total	6874.6					

Table 16. Results of one-way ANOVA of combined rubric scores at each site for SPC 2608.

4 CONCLUSIONS

FSW's Communication Studies Department employed a common rubric used by all faculty as a means to evaluate an agreed upon series of student level outcomes for SPC 1017 and SPC 2608. Faculty goals in assessment included tracking rubric implementation, Student Learning Objectives (SLOs) to include Oral Documentation, NV-Physical, and Support, and comparisons between dual enrollment (concurrent) and non-dual enrollment students, online and traditional students, and by site.

A drilldown of SPC 1017 results are as follows:

1. SLO 1 – Achievement of “Developing” or higher (≥ 2) in the Informative Speech rubric dimension “Oral Documentation” for 70% of the students was met.
2. SLO 2 – Achievement of “Developing” or higher (≥ 2) in the Informative Speech rubric dimension “NV-Physical” for 70% of the students was met.
3. SLO 3 – Improvement in common outcomes between Informative Speech Outline and Speech was met. Improvement is exhibited in 2 of 5 dimensions as well as the overall. Improvement excluding Outline scores of ‘4’ are exhibited in 5 of 5 dimensions.
4. In a study comparing rubric achievement based on overall score, at 38/40 and above (average rubric score of 3.8 or higher) all dimensions fair relatively equally (hot colors fairly evenly distributed). When overall rubric scores range from 31-37, the “Organization,” “Support,” “Language,” and “Attire” dimensions exhibit strong scores even when the overall score is somewhat lower. For example, at an overall score of 31, those four dimensions exhibit average scores ranging from 3.3 to 3.8, while other dimensions range from 2.5 to 3.0. Moreover, the “Language” and “Attire” attributes remains high even at very low overall scores. At an overall score of 27, for example, “Language” and “Attire” exhibit an average of 3.3 and 3.5, respectively, while all other categories range from 1.6 to 3.0. Lastly, when overall rubric scores range 30 or below, “Oral Documentation” is exceptionally weaker than the others.
5. In a longitudinal study, results exhibit a few attributes. The “Oral Documentation” dimension is consistently the lowest dimension over time, scoring the lowest score in all terms since the study began. The “Attire” dimension is consistently the highest, scoring the highest score in 10 of 11 terms. Most dimensions exhibit a dip between fall 2015 and fall 2017 making improvements over time difficult to discern. The “NV-Vocal” and “Organization” exhibit modest improvement since fall 2017, but this is only slightly higher than results from fall 2014.
6. No comparison between dual enrollment (concurrent) sections and traditional sections could be made because no dual enrollment sections were offered during fall 2019.
7. In a comparison of online to traditional artifacts mean scores are higher for online courses in 4 of 10 dimensions. Of these, “Support,” “Oral Documentation,” “Language,” “NV-Physical,” “Presentation Media,” and “Attire” are statistically significantly different.
8. In a cross-campus comparison, the Charlotte campus exhibits higher scores in 7/10 dimensions. The Thomas Edison (Lee) campus exhibits the highest scores in 2/10 dimensions and the overall score. FSW Online exhibits the highest scores in 1/10 dimensions. Results of the ANOVA exhibit a statistically significant difference between sites.

A drilldown of SPC 2608 results are as follows:

1. SLO 1 – Achievement of “Developing” or higher (≥ 2) in the Informative Speech rubric dimension “Oral Documentation” for 70% of the students was met.
2. SLO 2 – Achievement of “Developing” or higher (≥ 2) in the Informative Speech rubric dimension “NV-Physical” for 70% of the students was met.
3. SLO 3 – Improvement in common outcomes between Informative Speech Outline and Speech was met. Improvement is exhibited in 2 of 5 dimensions as well as the overall. Improvement excluding Outline scores of ‘4’ are exhibited in 5 of 5 dimensions.
4. In a study comparing rubric achievement based on overall score, the “Language,” “Attire,” and “Presentation Media” dimensions remain strong even at low overall scores. For example, at 30/40, the mean score for those three are 3.8/4, 4.0/4, and 3.8/4, respectively. By comparison, all other dimensions range from 1.7/4 to 3.6/4. The “NV-Physical” dimension exhibits the

steepest drop-off at higher overall scores. At 36/40, for example, “NV-Physical” is 2.6/4 when all other dimensions are 3.4/4 or higher.

5. In a longitudinal study, over time, the “Attire” dimension has been the highest achieving in 11 of 11 terms. The “Oral documentation” dimension has been the lowest in 6 of 11 terms. The “NV-Physical” had shown vast improvement since a dip in fall 2017, but has since dropped again in the most recent term to the lowest it has been since the study began (7.5/10). Perhaps the most consistent growth over time comes in “Language” dimension which has risen from a consistent 8.5 or 8.6 in AY 2014-2015 to consistent 9.3 to 9.4 range.
6. No comparison between dual enrollment (concurrent) sections and traditional sections could be made because no dual enrollment sections were offered during fall 2019.
7. In a comparison of online to traditional artifacts mean scores are lower for online courses in 9 of 10 dimensions. The “Language” and “Presentation Media” dimensions are statistically significantly different.
8. In a cross-campus comparison, the Charlotte campus exhibits higher scores in 6/10 dimensions. The Thomas Edison (Lee) campus exhibits the highest scores in 3/10 dimensions and the overall score. FSW Online exhibits the highest scores in 1/10 dimensions.

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