Speech Assessment Report
Spring 2020

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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).

For additional detail or further analysis not provided in this report, please contact Dr. Joseph F. van Gaalen, Asst. Vice President of Institutional Research, Assessment & Effectiveness, Academic Affairs (jfvangaalen@fsw.edu; x16965).

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 Spring 2020 assessment, 505 artifacts (based on highest rubric dimension count, not highest overall scores collected) were collected for SPC 1017 from 34 of 49 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. Spring 2020 artifacts exhibit 92% 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. Spring 2020 artifacts exhibit 97% 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	97%	99%	98%	92%	100%	99%	97%	86%	99%	97%
4	62.4%	80.4%	67.9%	53.1%	80.6%	39.6%	42.0%	50.5%	88.5%	58.2%
3	23.6%	13.9%	15.2%	31.1%	18.0%	46.3%	41.8%	26.9%	8.5%	25.9%
2	11.5%	4.8%	14.9%	7.7%	1.2%	13.3%	13.5%	8.7%	2.2%	12.7%
1	2.6%	0.8%	1.6%	4.2%	0.2%	0.8%	1.6%	3.0%	0.4%	2.6%
0	0.0%	0.2%	0.4%	4.0%	0.0%	0.0%	1.2%	10.9%	0.4%	0.6%

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	97%	94%	94%	86%	94%
4	48.7%	77.6%	48.4%	31.1%	54.7%
3	35.0%	11.7%	22.1%	28.3%	26.9%
2	13.0%	6.5%	23.7%	26.3%	12.6%
1	2.2%	1.5%	4.1%	5.9%	2.8%
0	1.1%	2.8%	1.7%	8.3%	3.0%

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 5 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 at greater differences between each.

Rubric Score	Introduction	Organization	Support	Oral Documentation	Conclusion	OVERALL
All artifacts						
Outline Mean	8.5	9.1	8.2	7.1	8.5	81.2
Informative Speech Mean	8.8	9.4	8.9	8.2	8.6	87.0
Change from Outline to Speech	*0.3*	*0.3*	*0.7*	*1.1*	*0.1*	*5.8*
Only artifacts that did not score 4/4 on outline						
Outline Mean	*7.1*	*6.1*	*6.5*	*6.2*	*6.8*	*80.7*
Informative Speech Mean	*8.1*	*8.1*	*8.0*	*7.7*	*7.7*	*85.9*
Change from Outline to Speech	*1.0*	*2.0*	*1.5*	*1.5*	*0.9*	*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 "Introduction," "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 44.9% in "Conclusion" to 66.3% in "Organization."

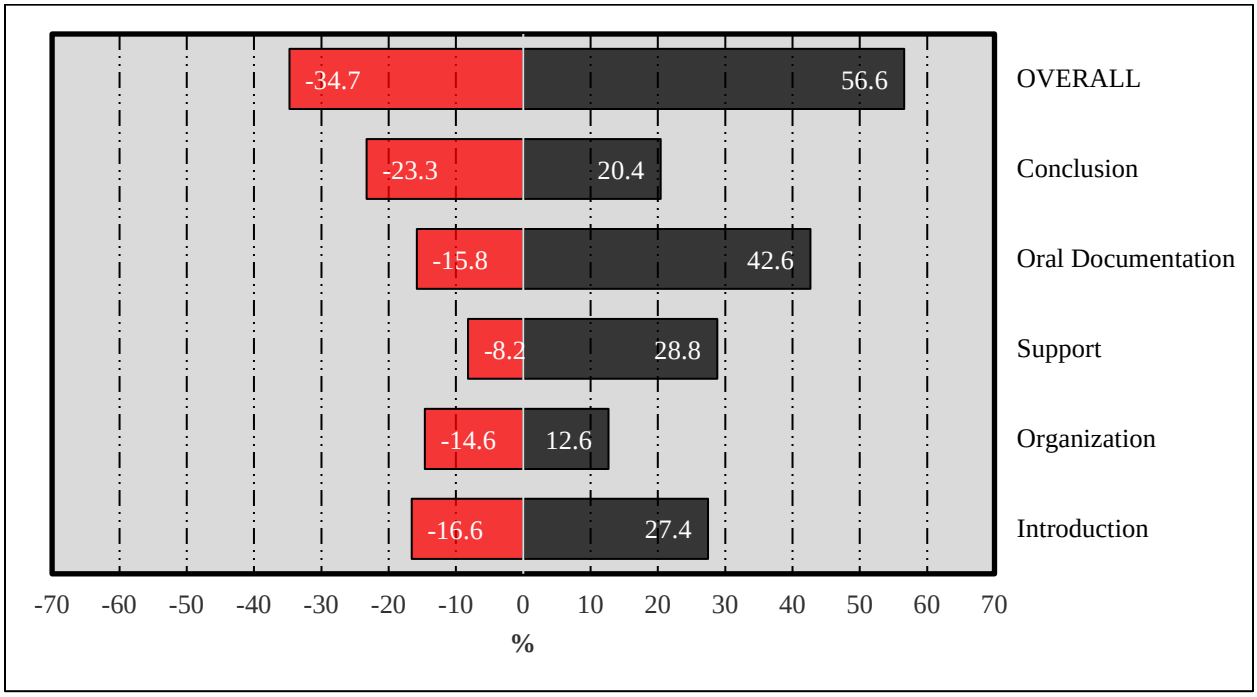

Figure 1. Percent increase/decrease from Outline to Speech by common rubric dimension.

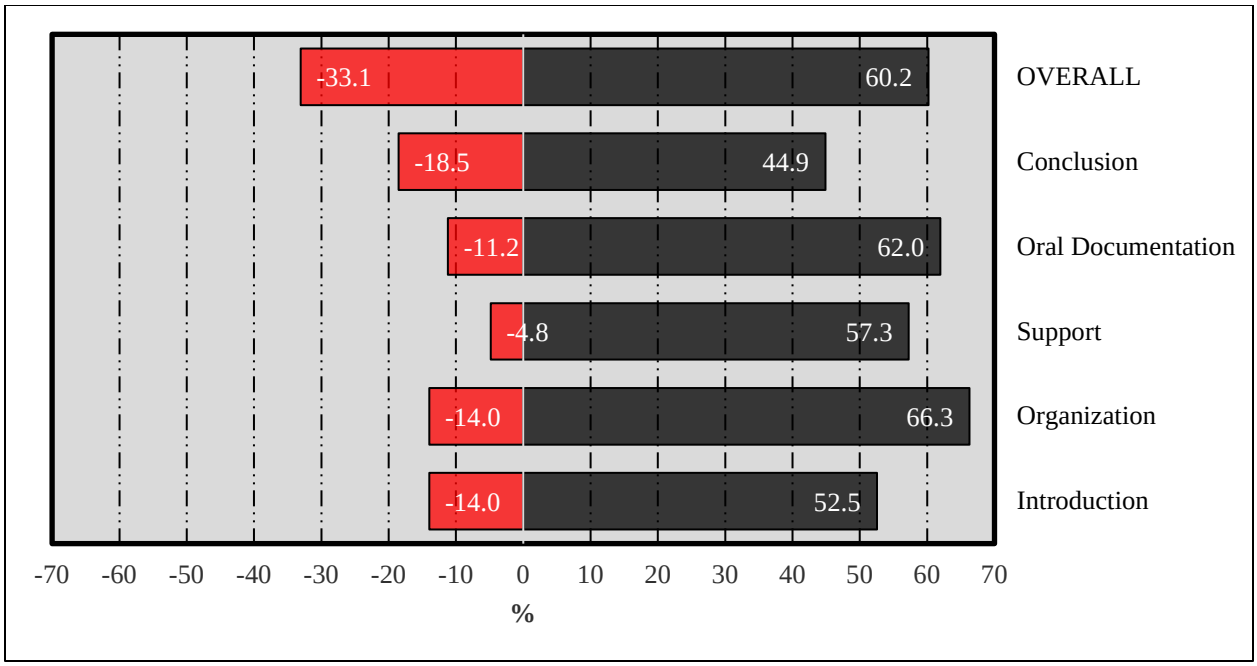

Figure 2. Percent increase/decrease from Outline to Speech by common rubric dimension excluding those artifacts scoring perfect 4/4 on Outline.

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. The speech exhibits a sharp peak at 99-100 when compared to the outline, likely related to a heightened number of perfect scores in the speech which is visible in the spike at the 99-100 scoring bin.

	Introduction	Organization	Support	*Oral Documentation*	Language	NV-Vocal	NV-Physical	Presentation Media	Attire	*Conclusion*
n	505	505	505	505	505	505	505	505	505	505
Max	10	10	10	10	10	10	10	10	10	10
Min	3	0	0	0	3	3	0	0	0	0
Mode	10	10	10	10	10	8	10	10	10	10
Mean	8.9	9.5	9.0	8.4	9.6	8.5	8.4	7.8	9.7	8.7
Standard deviation	1.68	1.27	1.75	2.42	0.91	1.44	1.80	3.17	1.08	1.82

Table 4. Descriptive statistics for SPC 1017 Informative Speech.

Rubric Score	Introduction	Organization	Support	Oral Documentation	Conclusion
n	540	539	539	540	539
Max	10	10	10	10	10
Min	0	0	0	0	0
Mode	10	10	10	10	10
Mean	8.5	9.1	8.2	7.1	8.5
Standard deviation	1.86	2.06	2.23	2.89	2.25

Table 5. Descriptive statistics for SPC 1017 Outline.

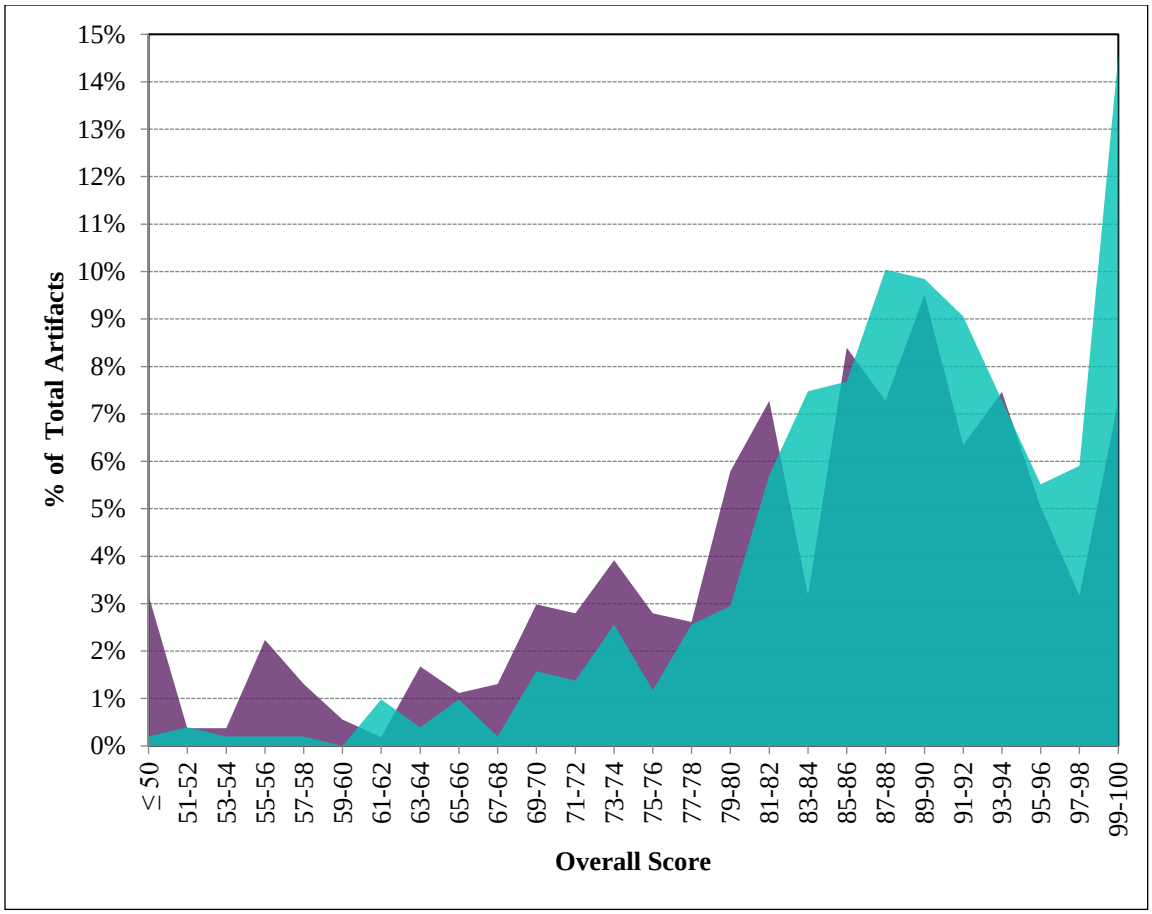

Figure 3. Overall score distribution for Outline (purple) and Speech (aqua) for spring 2020.

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.

	Introduction	Organization	Support	Oral Doc	Language	NV-Vocal	NV-Physical	Presentation Media	Attire	Conclusion	Equal Distribution
40	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
39	4.0	4.0	4.0	3.8	4.0	3.7	3.9	3.9	4.0	4.0	3.9
38	3.9	4.0	3.8	3.8	3.9	3.5	3.5	3.8	3.9	3.9	3.8
37	3.8	3.9	3.7	3.7	3.8	3.3	3.4	3.5	3.8	3.7	3.7
36	3.7	3.9	3.6	3.5	3.8	3.3	3.2	3.3	3.8	3.7	3.6
35	3.4	4.0	3.3	3.6	3.8	3.3	3.2	3.1	3.9	3.5	3.5
34	3.5	3.7	3.3	3.3	3.8	3.3	3.2	2.9	3.8	3.3	3.4
33	3.4	3.8	3.4	3.0	3.8	3.2	2.9	2.1	3.8	3.4	3.3
32	3.1	3.5	3.7	2.6	3.9	3.2	2.7	2.5	3.8	3.1	3.2
31	2.9	3.3	3.7	2.1	3.7	3.3	3.2	2.2	3.9	2.8	3.1
30	2.9	3.3	3.1	2.3	3.6	3.0	3.0	2.2	4.0	2.5	3.0
29	2.7	3.3	3.3	1.8	3.7	3.1	3.0	1.5	3.9	2.7	2.9
28	2.7	3.5	3.8	1.3	3.7	2.7	2.9	1.3	3.9	2.3	2.8
27	2.8	3.0	2.8	2.1	3.7	2.9	2.7	0.5	3.9	2.7	2.7
26	2.2	2.5	2.5	2.9	3.5	2.6	2.6	1.1	3.8	2.4	2.6
25	2.2	2.6	2.6	1.5	3.0	2.7	3.2	1.1	3.9	2.1	2.5
≤ 24	1.6	2.0	2.2	1.1	3.2	2.9	2.9	0.6	3.7	2.0	2.4

Scale 1 2 3 4

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 32-37, the "Organization," "Language," and "Attire" dimensions exhibit strong scores even when the overall score is somewhat lower. For example, at an overall score of 33, those three dimensions exhibit average scores at 3.8, while other dimensions range from 2.1 to 3.4. 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 3.7 and 3.9, respectively, while all other categories range from 0.5 to 3.0. Lastly, when overall rubric scores range 30 or below, "Oral Documentation" and "Presentation Media" 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 until spring 2020, in which "Presentation Media" exhibits the lowest. The "Attire" dimension is consistently the highest, scoring the highest score in 11 of 12 terms. Most dimensions exhibit a dip between fall 2015 and fall 2017 making improvements over time difficult to discern. All dimensions exhibit increases in spring 2020 with the exception of "Presentation Media" which dropped from 8.2 in fall 2019 to 7.8 in spring 2020.

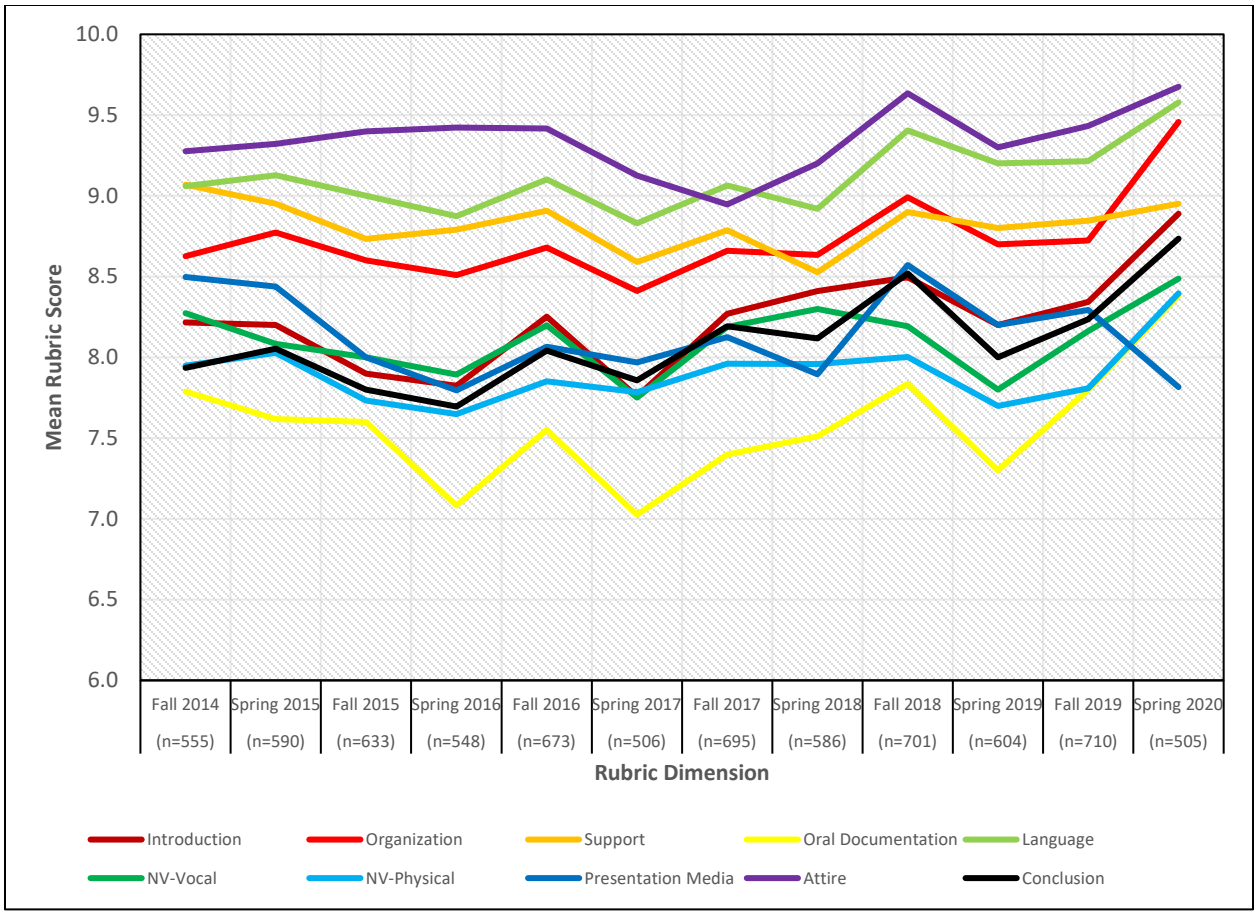

*Figure 5. Comparison of mean scores for Informative Speech through time. *The "Support", "NV-Physical", "Presentation Media", and "Attire" dimensions maximum rubric score was altered beginning fall 2017. The results from previous terms have been normalized to the new dimension maximum for comparative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

2.2 SPC 2608

2.2.1 Learning Objectives

For the Spring 2020 assessment, 161 artifacts (based on highest rubric dimension count, not highest overall scores collected) were collected for SPC 2608 from 10 of 18 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. Spring 2020 artifacts exhibit 94% 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. Spring 2020 artifacts exhibit 99% 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	100%	100%	99%	94%	100%	99%	99%	98%	100%	100%
4	63.4%	73.9%	21.1%	38.5%	73.3%	47.2%	44.1%	76.4%	83.9%	80.7%
3	30.4%	23.6%	31.7%	44.7%	24.8%	32.3%	31.7%	11.8%	14.9%	18.0%
2	6.2%	2.5%	46.6%	11.2%	1.9%	19.9%	23.6%	9.3%	1.2%	1.2%
1	0.0%	0.0%	0.0%	2.5%	0.0%	0.6%	0.6%	0.0%	0.0%	0.0%
0	0.0%	0.0%	0.6%	3.1%	0.0%	0.0%	0.0%	2.5%	0.0%	0.0%

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	97%	99%	96%	85%	95%
4	60.3%	80.4%	37.3%	30.9%	71.6%
3	25.0%	11.8%	21.6%	19.1%	12.7%
2	11.8%	6.4%	36.8%	35.3%	10.3%
1	2.0%	0.0%	3.4%	9.3%	2.5%
0	1.0%	1.5%	1.0%	5.4%	2.9%

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 3 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
All artifacts						
Outline Mean	8.8	9.4	7.8	7.0	8.9	81.0
Informative Speech Mean	9.1	9.4	7.3	8.2	9.6	87.6
Change from Outline to Speech	*0.3*	*0.0*	*-0.5*	*1.2*	*0.7*	*6.6*
Only artifacts that did not score 4/4 on outline						
Outline Mean	*7.0*	*6.9*	*6.5*	*5.6*	*6.5*	*80.9*
Informative Speech Mean	*8.5*	*8.1*	*6.6*	*7.8*	*8.7*	*86.4*
Change from Outline to Speech	*1.5*	*1.2*	*0.1*	*2.2*	*2.2*	*5.5*

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," "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 20% in "Support" to 83% in "Conclusions."

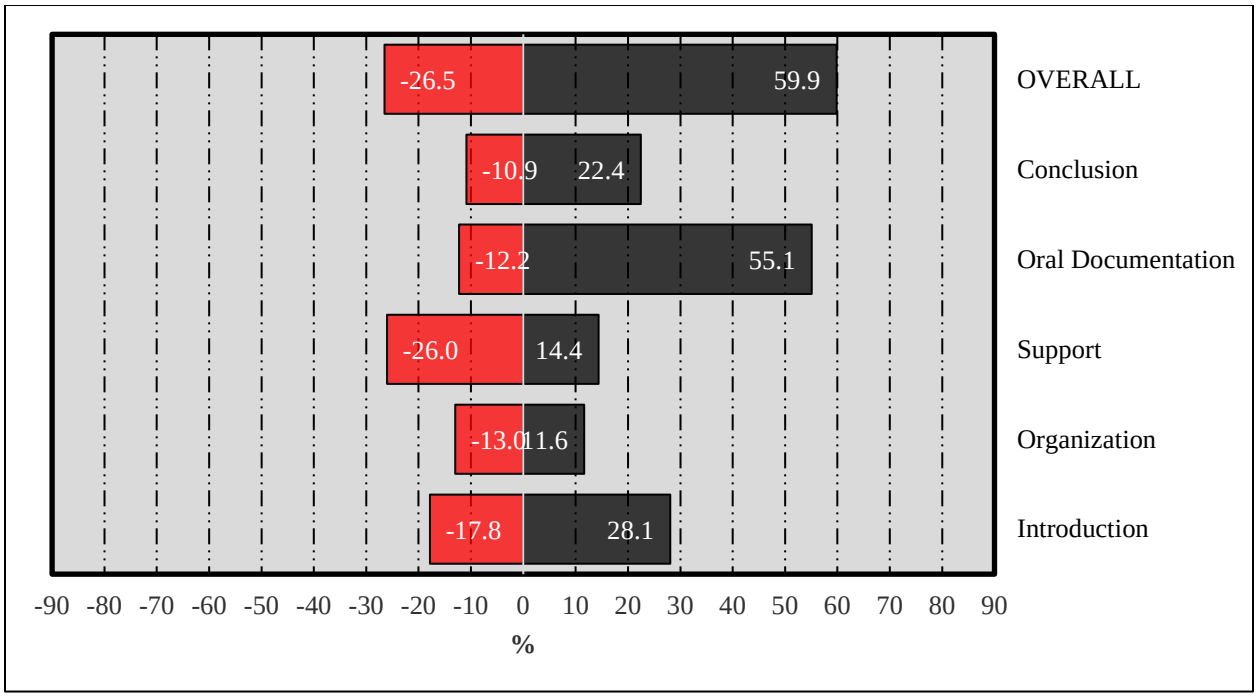

Figure 6. Percent increase/decrease from Outline to Speech by common rubric dimension.

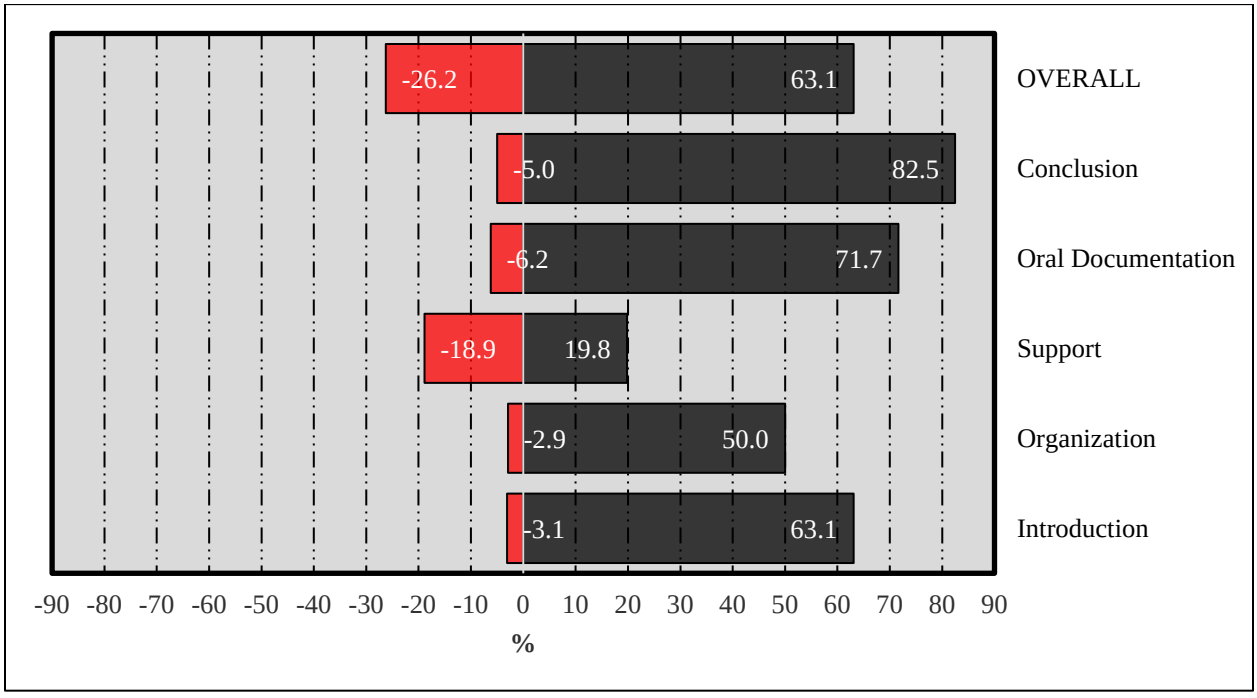

Figure 7. Percent increase/decrease from Outline to Speech by common rubric dimension excluding those artifacts scoring perfect 4/4 on Outline.

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 spike at perfect scores (nearly 14%). By comparison, perfect scores for the Outline is less than 5%.

	Introduction	Organization	Support	Oral Documentation	Language	NV-Vocal	NV-Physical	Presentation Media	Attire	Conclusion
n	161	161	161	161	161	161	161	161	161	161
Max	10	10	10	10	10	10	10	10	10	10
Min	6	6	0	0	6	3	3	0	6	6
Mode	10	10	6	8	10	10	10	10	10	10
Mean	9.1	9.4	7.4	8.2	9.4	8.5	8.4	9.1	9.7	9.6
Standard deviation	1.22	1.01	1.68	2.14	0.99	1.61	1.65	1.93	0.82	0.87

Table 9. Descriptive statistics for SPC 2608.

Rubric Score	Introduction	Organization	Support	Oral Documentation	Conclusion
n	204	204	204	204	204
Max	10	10	10	10	10
Min	0	0	0	0	0
Mode	10	10	8	7	10
Mean	8.8	9.4	7.8	7.0	8.9
Standard deviation	1.84	1.60	2.10	2.74	2.25

Table 10. Descriptive statistics for SPC 2608 Outline.

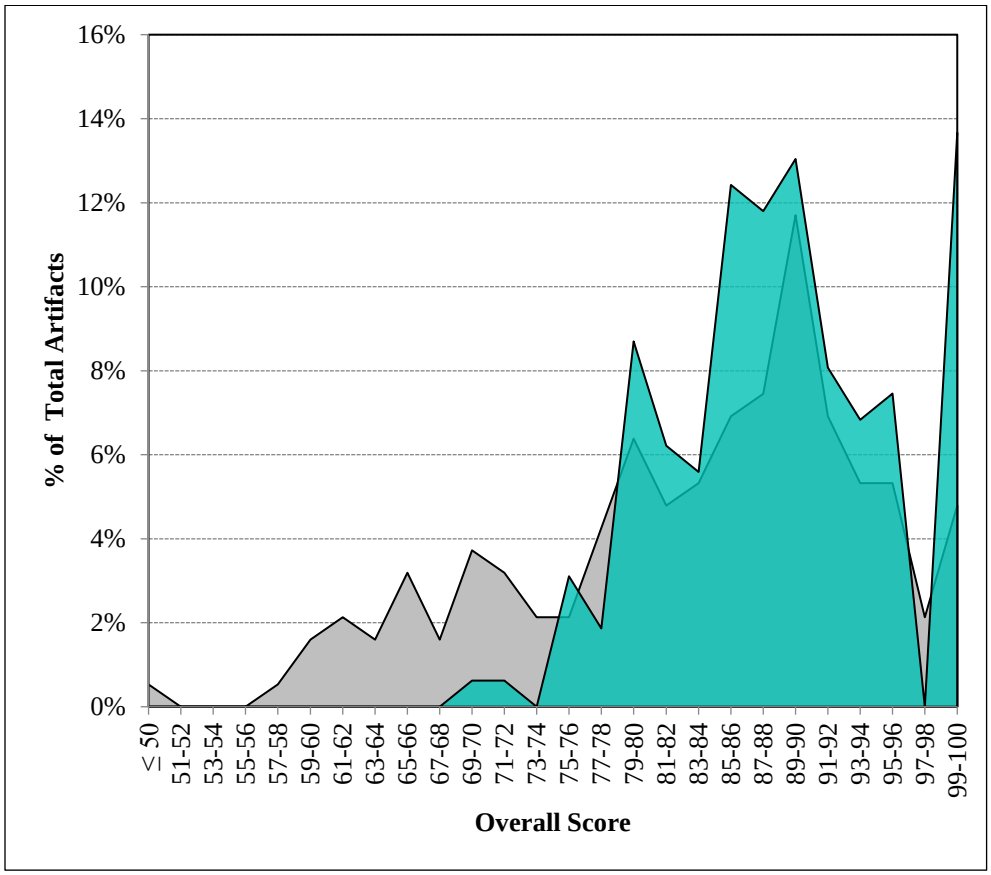

Figure 8. Overall score distribution for Outline (gray) and Speech (aqua).

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.

	Introduction	Organization	Support	Oral Doc	Language	NV-Vocal	NV-Physical	Presentation Media	Attire	Conclusion	Equal Distribution
40	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
39	3.8	4.0	2.7	3.8	4.0	4.0	4.0	4.0	4.0	4.0	3.9
38	3.9	3.9	3.0	3.6	3.9	4.0	3.9	3.9	4.0	4.0	3.8
37	3.8	3.8	2.9	3.6	3.9	3.7	3.6	3.8	3.9	3.9	3.7
36	3.7	3.7	2.7	3.5	3.7	3.5	3.4	4.0	3.9	4.0	3.6
35	3.7	3.8	2.7	3.4	3.9	3.2	3.2	3.7	3.9	3.8	3.5
34	3.5	3.7	2.8	3.2	3.7	3.1	3.1	3.7	3.8	3.6	3.4
33	3.4	3.7	2.8	2.9	3.8	2.8	2.8	3.3	3.7	3.7	3.3
32	3.2	3.7	2.8	1.9	3.4	3.2	3.1	3.1	3.7	3.8	3.2
31	2.9	3.5	2.7	2.9	3.7	2.7	2.7	2.7	4.0	3.5	3.1
30	3.7	3.2	2.9	3.0	3.5	2.7	2.6	1.9	3.4	3.5	3.0
29	3.6	3.4	2.8	2.2	3.4	2.1	2.1	2.8	3.4	3.6	2.9
28	3.5	3.5	2.7	1.9	3.5	2.0	2.0	2.9	3.5	3.7	2.8
≤ 27	3.2	3.6	2.4	1.2	3.6	1.8	1.8	3.2	3.6	4.0	2.7

Scale 1 2 3 4

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 "Organization," "Language," "Attire," and "Conclusion" dimensions remain strong even at low overall scores. For example, at 31/40, the mean score for those four are 3.5/4, 3.7/4, 4.0/4, and 3.5/4, respectively. By comparison, all other dimensions range from 2.7/4 to 2.9/4. The "Support" and "NV-Physical" dimensions exhibits the steepest drop-off at higher overall scores. At 38/40, for example, "Support" is 3.0/4 when all other dimensions are 3.6/4 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 12 of 12 terms. The "Oral documentation" dimension has been the lowest in 6 of 12 terms. The "Support" dimension has exhibited the lowest and second lowest mean scores in the last two terms on record.

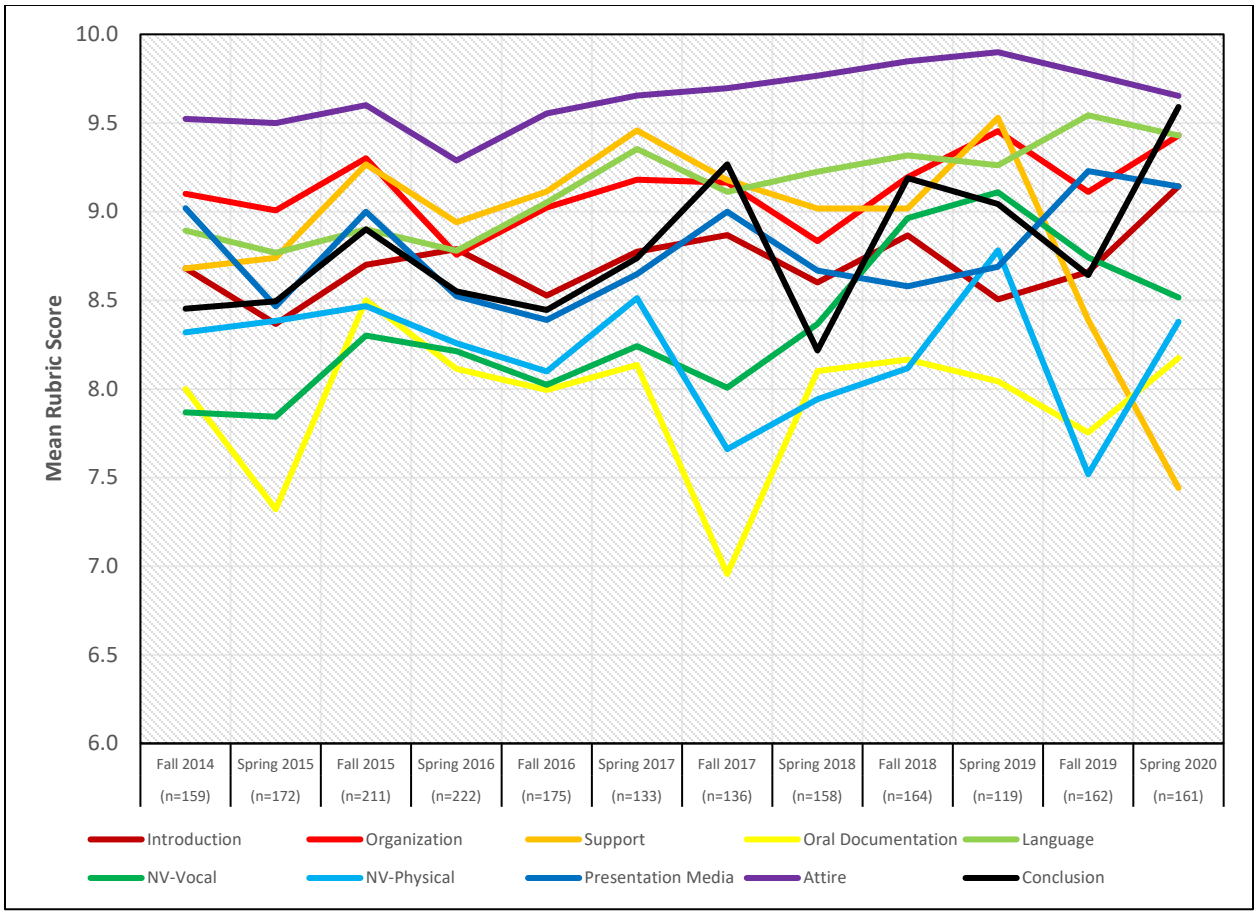

Figure 10. Comparison of mean scores for Informative Speech through time.

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 spring 2020 so no comparison study could be completed.

3.1.2 Online to Traditional Comparison

During the spring 2020 semester, 218 total online artifacts and 290 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 6 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," "Presentation Media," and "Conclusion" 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.

	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	9.1	9.5	8.3	8.4	9.3	8.6	8.4	7.6	9.7	9.2	9.1
Traditional mean	8.8	9.4	9.6	8.4	9.8	8.4	8.3	8.0	9.7	8.4	8.8
Effect Size	-0.18	-0.10	0.80	0.01	0.46	-0.15	-0.03	0.14	0.00	-0.45	-0.07
p-value	0.046	0.279	**9.06×10^{-17}**	**0.010**	**4.29×10^{-7}**	0.087	0.881	**1.18×10^{-5}**	0.424	**4.06×10^{-6}**	0.446

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-large effect sizes ranging from 0.01 to 0.80 (Table 11). In other words, non-overlap from online artifacts to traditional artifacts range from approximately 1% to 47%.

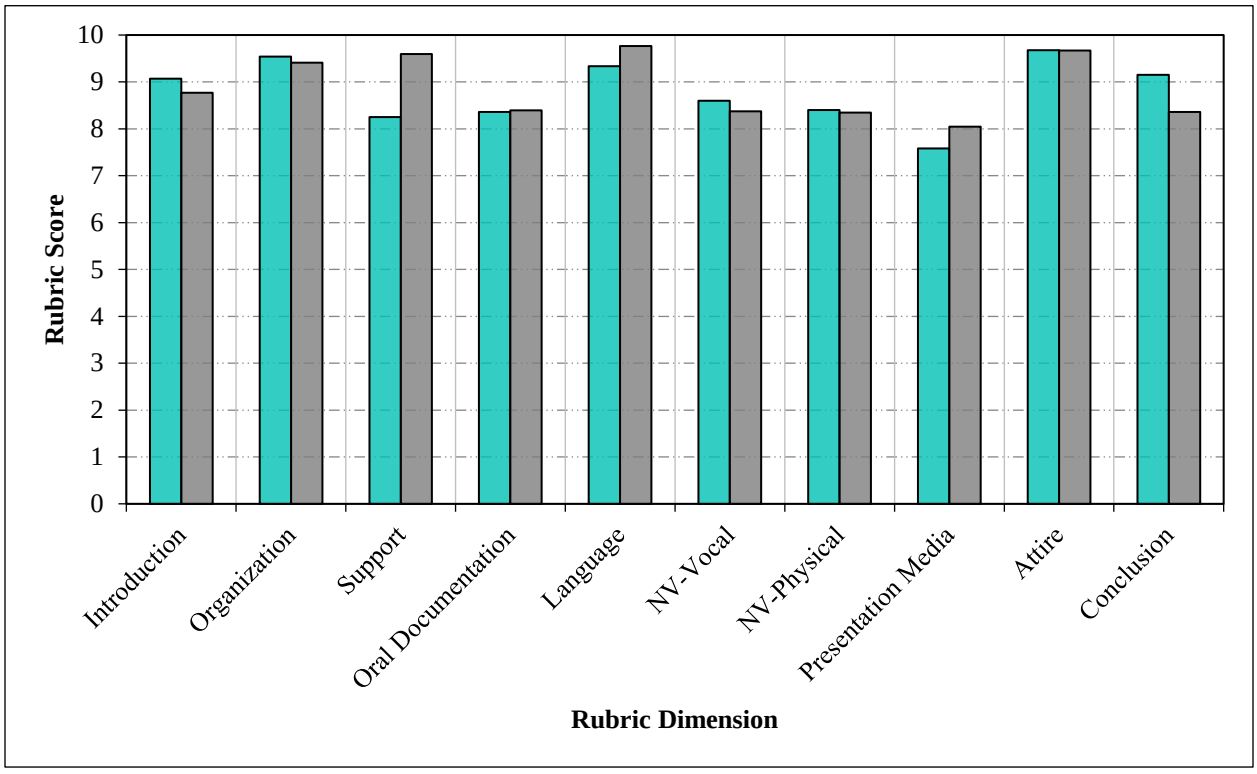

Figure 11. Comparison of mean scores for online (aqua) and traditional (gray) scores for SPC 1017.

3.1.3 Comparison by Campus/Site

Of the 505 artifacts collected from SPC 1017, 32 originated from the Charlotte campus, 128 from the Collier campus, 218 from FSW Online, 9 from the Hendry-Glades Center, and 116 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.

	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*
Charlotte	**10.0**	**10.0**	**9.9**	**9.0**	**10.0**	9.2	8.9	**9.4**	9.8	**10.0**	**96.0**
Collier	7.9	9.0	9.6	8.1	9.9	7.5	7.4	8.1	9.6	7.5	84.6
FSW Online	9.1	9.5	8.3	8.4	9.3	8.6	8.4	7.6	9.7	9.2	87.9
Hndry Glades	8.1	8.9	6.1	8.1	9.6	**9.6**	**10.0**	7.1	**10.0**	9.8	87.2
Edison (Lee)	9.4	9.7	9.5	8.5	9.6	9.1	9.2	7.6	9.7	8.8	91.2

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 and the overall score. The Hendry Glades Center exhibits the highest scores in 3/10 dimensions.

A plot comparing score distribution of the combined (overall) scores by site is presented in Figure 12. Collier and FSW Online exhibit similar distributions both in range and central tendency. Charlotte and Thomas Edison both exhibits a sharp peak at the 97-8 scoring bin and above.

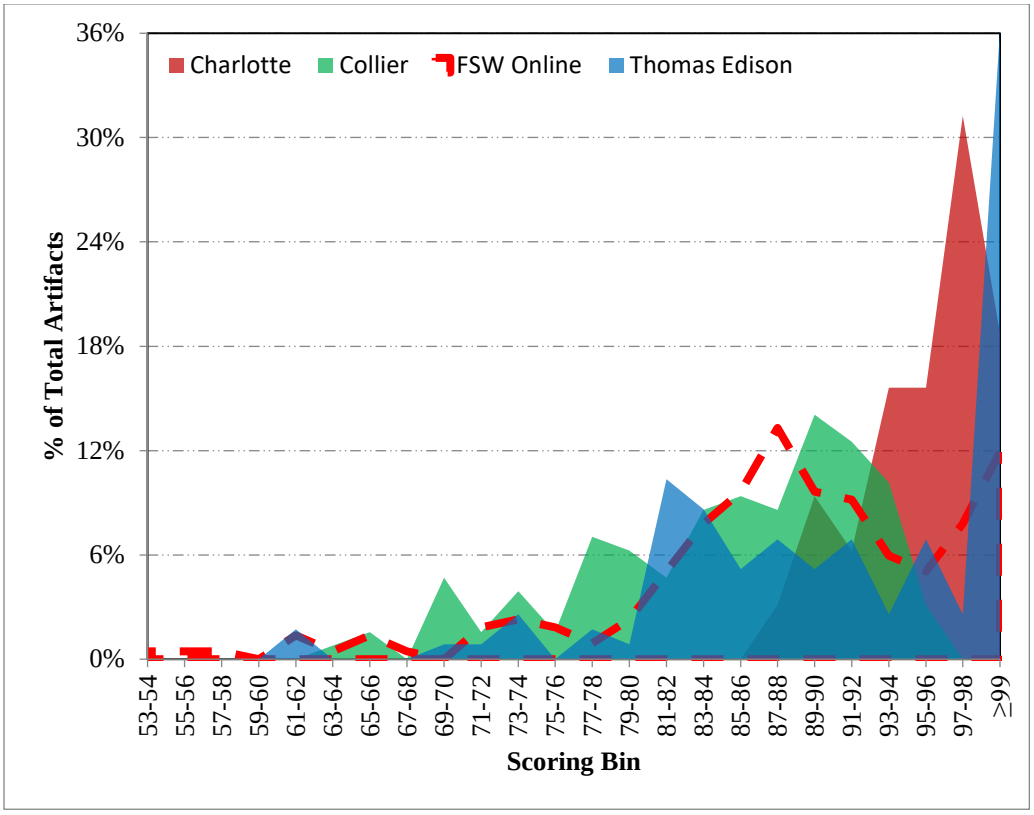

Figure 12. Comparison of artifact score distribution by site. Hendry Glades is not plotted due to limited sample size.

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	4658.4	4	1164.6	13.92	$9.06x10^{-11}$	2.39
Within Sites	41,676.5	498	83.7			
Total	46,334.9					

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 spring 2020 and so no comparison study could be completed.

3.2.2 Online to Traditional Comparison

During the Spring 2020 semester, 15 total online artifacts and 146 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 7 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 "Support," "Language," "NV-Physical," "Presentation Media," and "Attire" 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 0.05 to 1.0 (Table 14). In other words, non-overlap from online artifacts to traditional artifacts range from approximately 3% to 56%.

	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	8.8	9.3	8.3	6.8	8.3	7.9	7.1	8.4	10.0	9.7	84.5
Traditional mean	9.2	9.4	7.4	8.3	9.5	8.6	8.5	9.2	9.6	9.6	89.3
Effect Size	0.14	0.05	-0.40	0.29	1.03	0.29	0.77	0.27	-0.86	-0.13	0.60
p-value	0.402	0.754	**0.026***	0.055	**$2.9x10^{-6}$**	0.081	**$7.82x10^{-5}$**	**0.031***	**$2.57x10^{-7}$**	0.430	**0.001**

*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).*

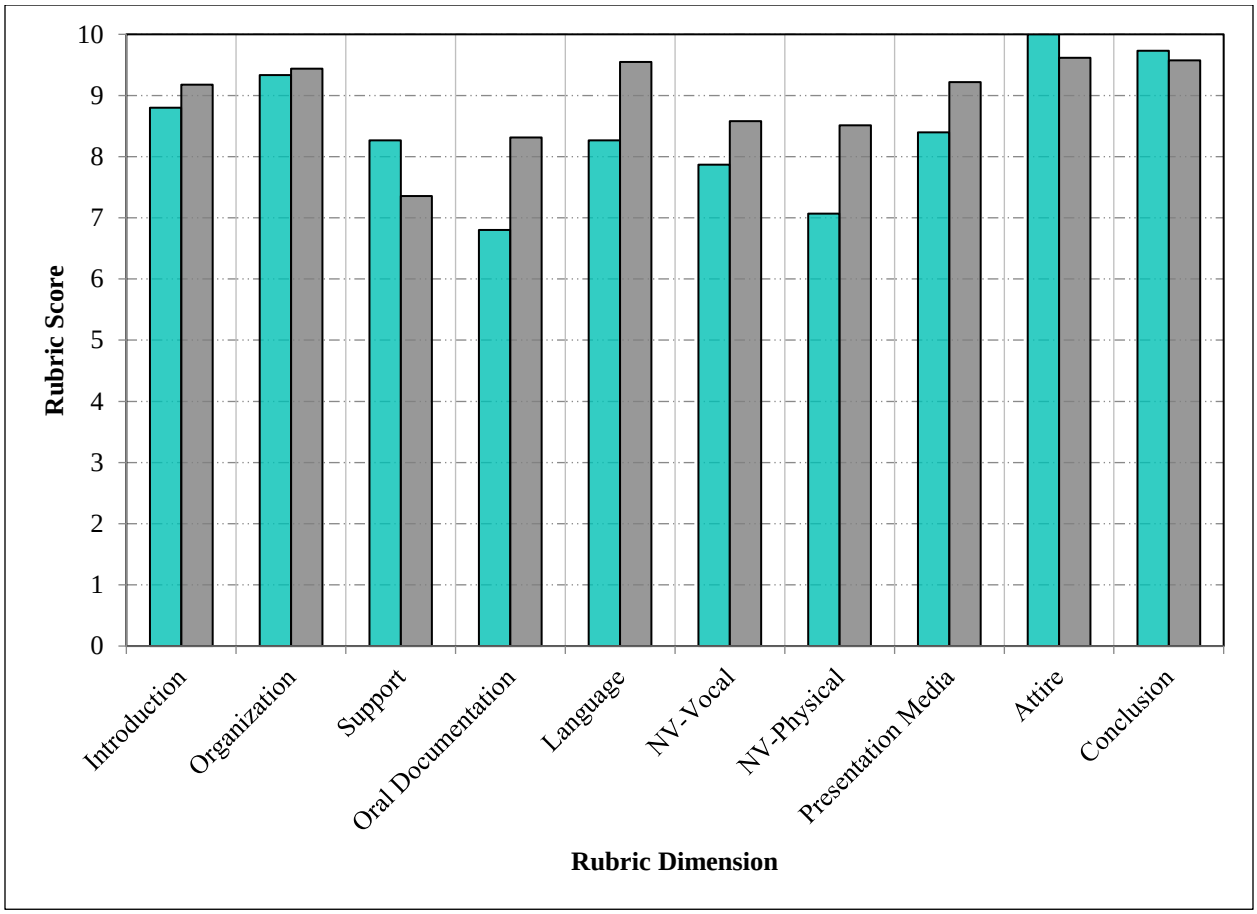

Figure 13. Comparison of mean scores for online (aqua) and traditional (gray) scores for SPC 2608.

3.2.3 Comparison by Campus/Site

Of the 161 artifacts collected from SPC 2608, 0 originated from the Charlotte campus, 0 from the Collier campus, 15 from FSW Online, 19 from the Hendry-Glades Center, and 127 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.

	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*
Charlotte	~	~	~	~	~	~	~	~	~	~	~
Collier	~	~	~	~	~	~	~	~	~	~	~
FSW Online	8.8	9.3	**8.3**	6.8	8.3	7.9	7.1	8.4	**10.0**	9.7	84.5
Hndry Glades	8.7	9.2	8.2	7.8	9.3	**9.8**	**9.8**	8.8	**10.0**	**9.9**	**91.5**
Edison (Lee)	**9.2**	**9.5**	7.2	**8.4**	**9.6**	8.4	8.3	**9.3**	9.6	9.5	89.0

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 Thomas Edison (Lee) campus exhibits higher scores in 5/10 dimensions. The Hendry Glades Center exhibits the highest scores in 4/10 dimensions and the overall score. FSW Online exhibits the highest scores in 2/10 dimensions (Hendry Glades and FSW Online share the highest in "Attire."

A plot comparing score distribution of the combined (overall) scores by site is presented in Figure 14. Each site exhibits large differences in score distribution. However, it is important to note that sample size is somewhat limited in both Hendry Glades (n=19) and FSW Online (n=15).

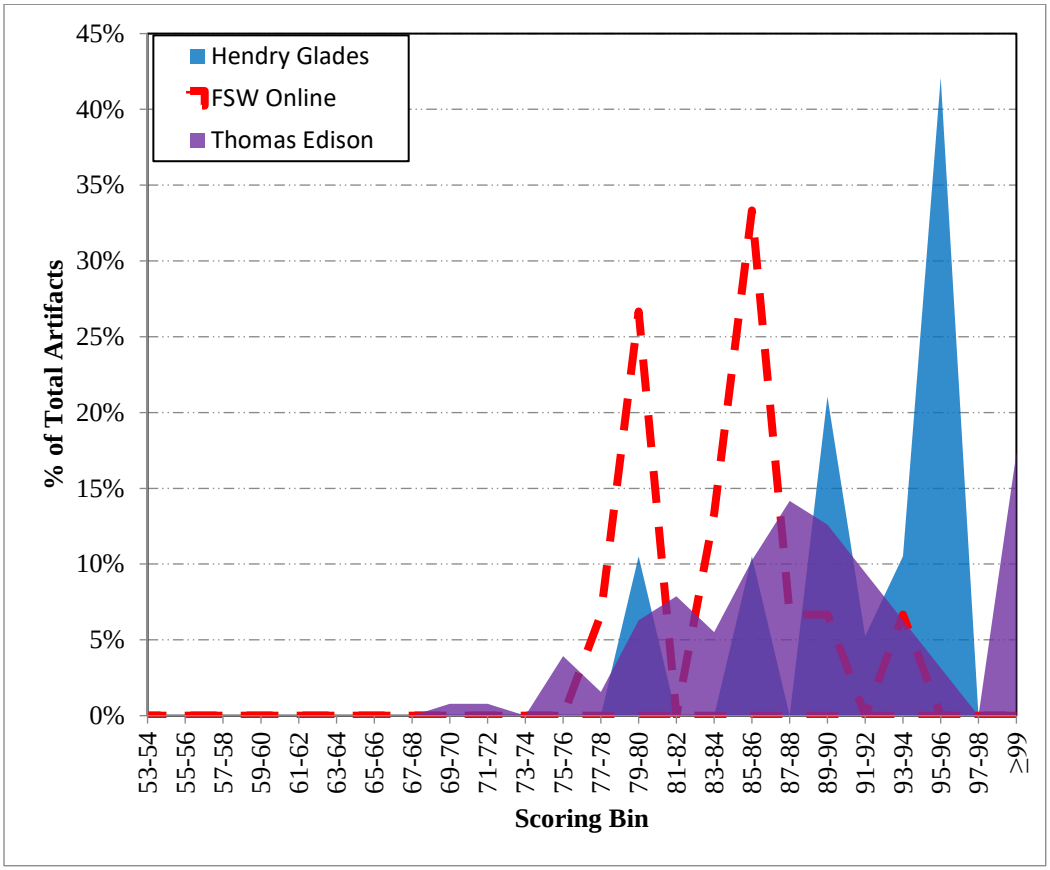

Figure 14. Comparison of artifact score distribution by site.

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	418.8	2	209.4	4.60	0.011	3.05
Within Sites	7196.4	158	45.5			
Total	7615.2	160				

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 5 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 32-37, the "Organization," "Language," and "Attire" dimensions exhibit strong scores even when the overall score is somewhat lower. For example, at an overall score of 33, those three dimensions exhibit average scores at 3.8, while other dimensions range from 2.1 to 3.4. 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 3.7 and 3.9, respectively, while all other categories range from 0.5 to 3.0. Lastly, when overall rubric scores range 30 or below, "Oral Documentation" and "Presentation Media" 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 until spring 2020, in which "Presentation Media" exhibits the lowest. The "Attire" dimension is consistently the highest, scoring the highest score in 11 of 12 terms. Most dimensions exhibit a dip between fall 2015 and fall 2017 making improvements over time difficult to discern. All dimensions exhibit increases in spring 2020 with the exception of "Presentation Media" which dropped from 8.2 in fall 2019 to 7.8 in spring 2020.
6. No comparison between dual enrollment (concurrent) sections and traditional sections could be made because no dual enrollment sections were offered during spring 2020.
7. In a comparison of online to traditional artifacts mean scores are higher for online courses in 6 of 10 dimensions. Of these, "Support," "Oral Documentation," "Language," "Presentation Media," and "Conclusion" are statistically significantly different.
8. In a cross-campus comparison, the Charlotte campus exhibits higher scores in 7/10 dimensions and the overall score. The Hendry Glades Center exhibits the highest scores in 3/10 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 3 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 "Organization," "Language," "Attire," and "Conclusion" dimensions remain strong even at low overall scores. For example, at

31/40, the mean score for those four are 3.5/4, 3.7/4, 4.0/4, and 3.5/4, respectively. By comparison, all other dimensions range from 2.7/4 to 2.9/4. The "Support" and "NV-Physical" dimensions exhibits the steepest drop-off at higher overall scores. At 38/40, for example, "Support" is 3.0/4 when all other dimensions are 3.6/4 or higher.

5. In a longitudinal study, over time, the "Attire" dimension has been the highest achieving in 12 of 12 terms. The "Oral documentation" dimension has been the lowest in 6 of 12 terms. The "Support" dimension has exhibited the lowest and second lowest mean scores in the last two terms on record.
6. No comparison between dual enrollment (concurrent) sections and traditional sections could be made because no dual enrollment sections were offered during spring 2020.
7. In a comparison of online to traditional artifacts mean scores are lower for online courses in 7 of 10 dimensions. The "Support," "Language," "NV-Physical," "Presentation Media," and "Attire" dimensions are statistically significantly different.
8. In a cross-campus comparison, the Thomas Edison (Lee) campus exhibits higher scores in 5/10 dimensions. The Hendry Glades Center exhibits the highest scores in 4/10 dimensions and the overall score. FSW Online exhibits the highest scores in 2/10 dimensions (Hendry Glades and FSW Online share the highest in "Attire." Results of the ANOVA exhibit a statistically significant difference between sites.

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