

General Education Assessment Report – AY 2015-16

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1 INTRODUCTION

This report details the results of Florida SouthWestern State College's General Education assessment for AY 2015-2016. The intent of FSW's General Education Program is to foster lifelong learning and establish academic excellence, interdisciplinary dialog, and a social responsibility among students. Each of the five competencies (Communication, Critical Thinking, Technology/Information Management, Global Socio-cultural Responsibility, and Scientific and Quantitative Reasoning) was assessed through assignments identified by faculty as fitting the criteria of the competency (Braselton, 2011; Rhodes and Finley, 2013).

The General Education Assessment Subcommittee of the Learning Assessment Committee adopted (see [June 9, 2014 GEAS Subcommittee Meeting Minutes](#)) the Association of American Colleges & Universities (AAC&U) Value Rubric Model (Rhodes and Finley, 2013) after an extensive review of General Education assessment models employed throughout higher education. The study employed the use of the AAC&U rubrics for a comprehensive review of the Communication (COM) competency. As aligned with the AAC&U Value Rubric Model and Value Rubric Case Studies, FSW faculty from across disciplines voluntarily submitted assignments aligned with the competencies. Assignments do not have to be uniform if outcomes, rating, and the rationale for rating (rubric interpretation) are uniform (Rhodes & Finley, 2013). Outcomes are identified by the competency definition at FSW. Calibration sessions were conducted before scoring in each competency. Inter-rater reliability studies were performed on the results.

The purpose of the program is to: 1) measure against baseline data for the number of students receiving scores of 3 or higher on relevant dimensions of the rubric, 2) measure against baseline data for the number of students receiving scores of 3 or higher on relevant dimensions of the rubric across sites (Online, Dual Enrollment, and Traditional), 3) establish a baseline for the number of student artifacts receiving a score of 3 or higher on relevant aspects of the rubric across credit achievement level (e.g. achievement with respect to number of credits earned), 4) establish a baseline for the number of student artifacts receiving a score of 3 or higher on relevant aspects of the rubric across pre-requisite definition (e.g. achievement with respect to pre-requisite courses), 5) establish a baseline for the number of student artifacts receiving a score of 3 or higher on relevant aspects of the rubric across pre-requisite definition (e.g. achievement with respect to pre-requisite ENC 1101 courses), and 6) determine the suitability of the AAC&U Value rubrics for assignments/assessments administered at FSW.

For additional detail on further analysis not provided in this report, please contact Dr. Joseph F. van Gaalen, Director of Academic Assessment, Academic Affairs (ifvangaalen@fsw.edu; x16965).

2 WRITTEN COMMUNICATION (WRITTEN COM)

2.1 AY 2015-2016 STUDY

The COM competency goal is by completion of the general education requirements, students will be able to communicate effectively using standard English (written or oral). The FSW Learning Assessment Committee will measure the number of artifacts scored a 3 or higher on relevant dimensions of the rubric against the pilot results (AY 2014-2015). Figures 1 through 10 below depict achievement and inter-rater reliability for the Written COM competency in college-wide, Associate of Arts (AA) cohorts, as well as value-added studies.

Feedback from scorers regarding the AAC&U Value rubric for the Written COM competency included two main trends regarding rubric suitability. First, multiple scorers noted that “Sources and Evidence” is not relevant in all COM assignments. The varying interpretation of this dimension based on the incorporation of it in the assignment caused concerns over consistent scoring habits. This comment was noted in the previous year’s study (AY 2014-2015). In response, scorers coordinated to leave the scoring for any rubric dimension blank if that area was not explicitly described in the assignment guidelines provided by the instructor. Second, scorers noted the use of “some” and “few” at differing achievement levels when interpreting “Control of Syntax and Mechanics” is at times very difficult to distinguish. To date, no modifications to the AAC&U Value rubrics have been made to tailor achievement levels.

One third area noted by feedback unrelated to rubric suitability is that of plagiarism. This point was also noted in the AY 2014-2015 study. In response to this, all artifacts were reviewed using TurnItIn to confirm originality before being sent out to the scoring teams. Documented cases of plagiarism of varying levels from full copied text to accidental cases accounted for 11% of artifacts submitted.

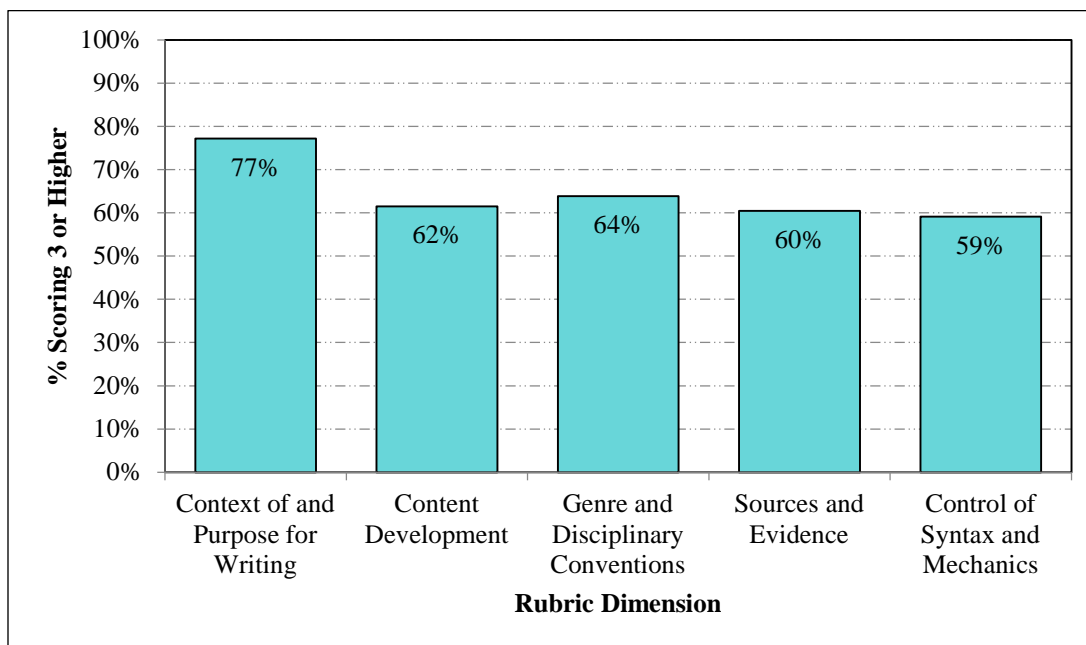


Figure 1. Written COM Achievement at 3 or higher across all rubric dimensions for 252 artifacts from 56 volunteered assignments.

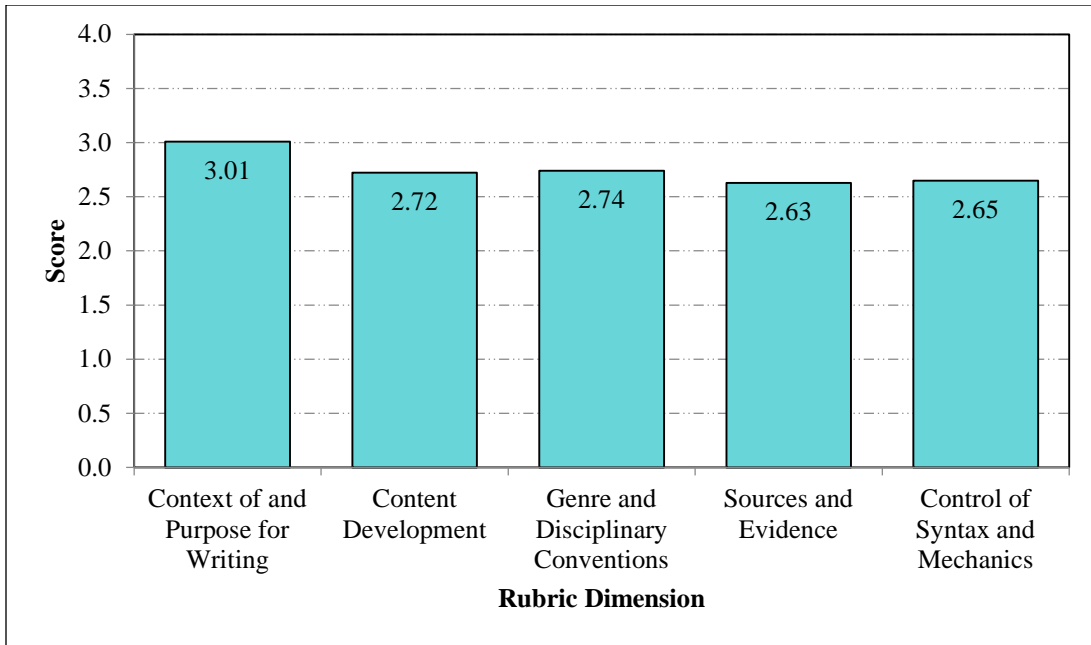


Figure 2. Mean score by rubric dimension for Written COM for 252 artifacts from 56 volunteered assignments.

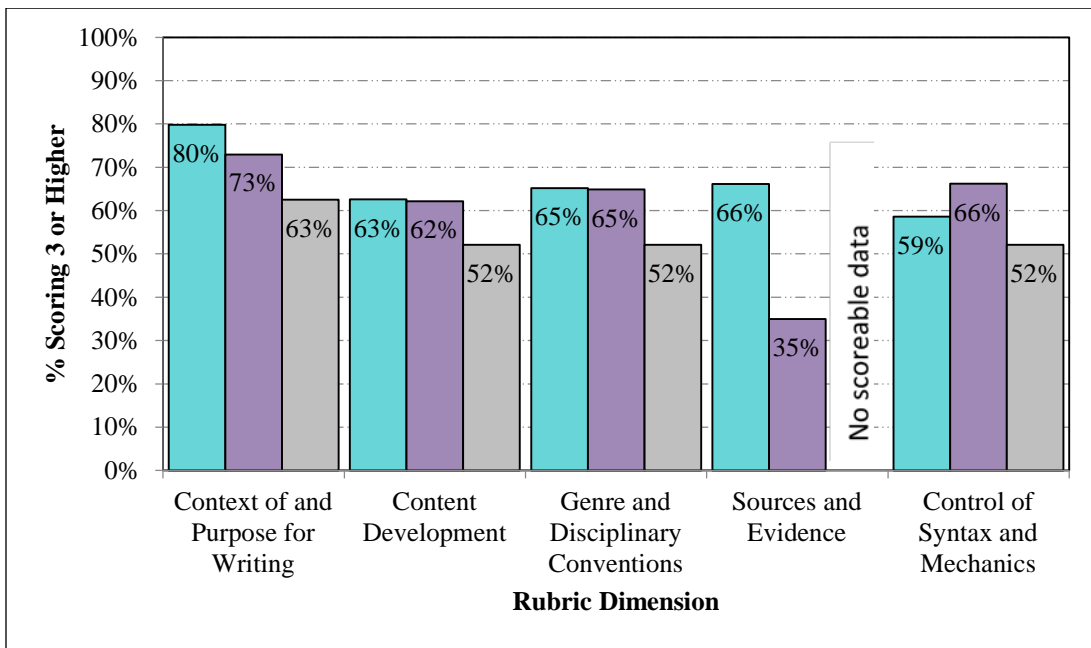


Figure 3. Comparison of Written COM achievement at 3 or higher across all rubric dimensions for 252 artifacts from 56 volunteered assignments. Traditional (teal), n=191, Online (purple), n=37, Dual Enrollment (gray), n=24.

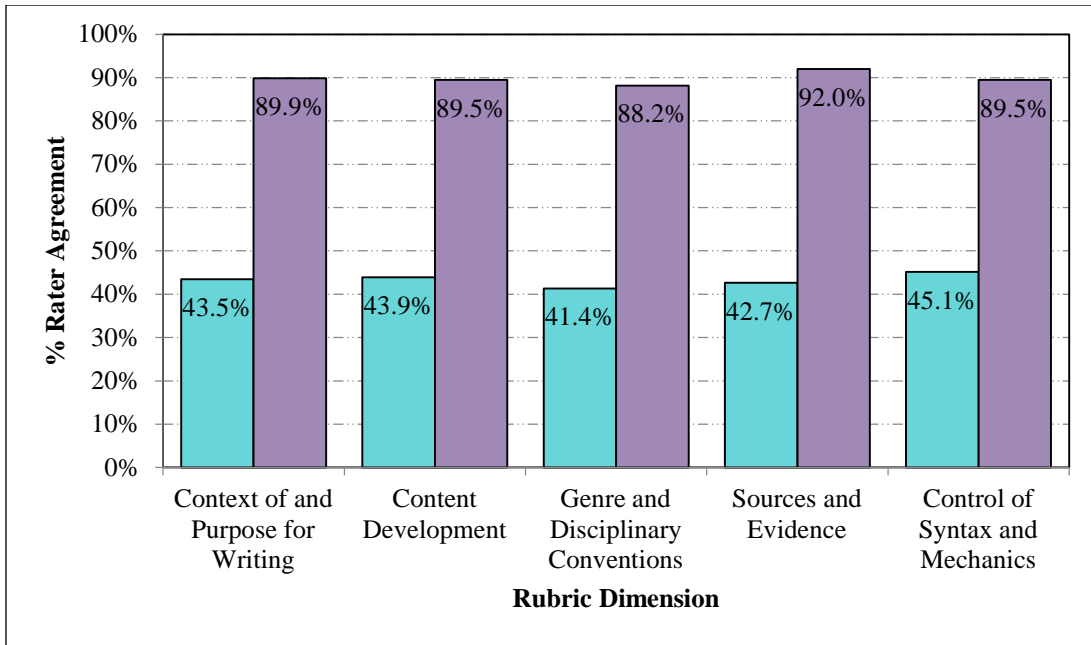


Figure 4. Inter-rater reliability (as %) for Written COM competency. Each artifact was scored by two scorers. Percentage (%) of agreement (teal) is defined as cases where scores by each scorer were identical. Percentage (%) +/- 1 agreement (purple) is defined as cases where scores by each scorer were within 1 of each other.

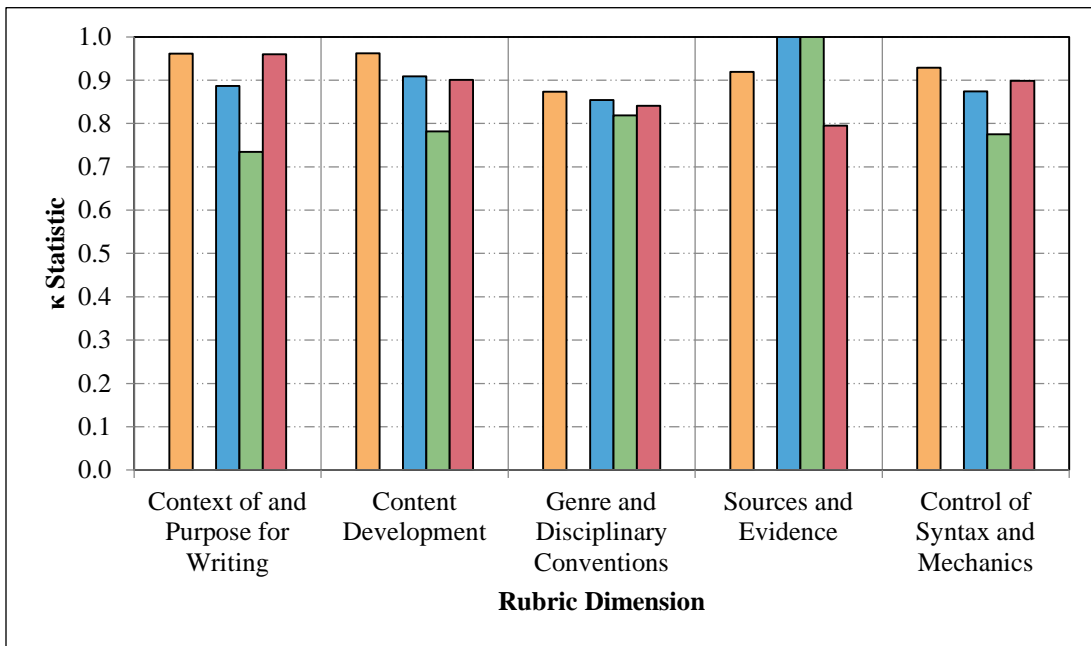


Figure 5. κ -statistic for scorer pairs of the Written COM competency artifacts (Scorers 1A & 1B – orange, Scorers 2A & 2B – not shown (Scoring Team 2 was devoted entirely to Oral COM artifacts), Scorers 3A and 3B – blue), Scorers 4A & 4B – green, Scorers 5A & 5B – red). The κ -statistic is evaluated for the percentage (%) +/- 1 agreement shown in Figure 4 above and takes into account the random chance that scorers would agree (Cohen, 1960; Gwet, 2002), thus the κ -statistic results will be slightly lower than a straightforward percentage of agreement. The κ -statistic was calculated for the Written COM study to be use as a guide to interpret percentage agreement in an academic sense.

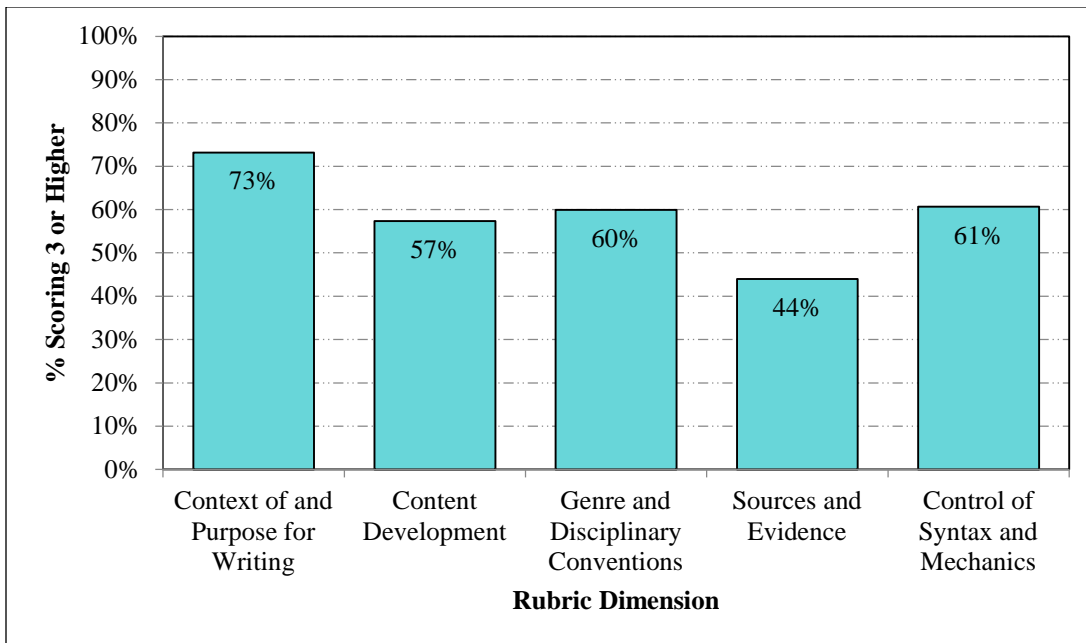


Figure 6. Written COM Achievement at 3 or higher for AA courses only across all rubric dimensions for 136 artifacts from 24 volunteered assignments.

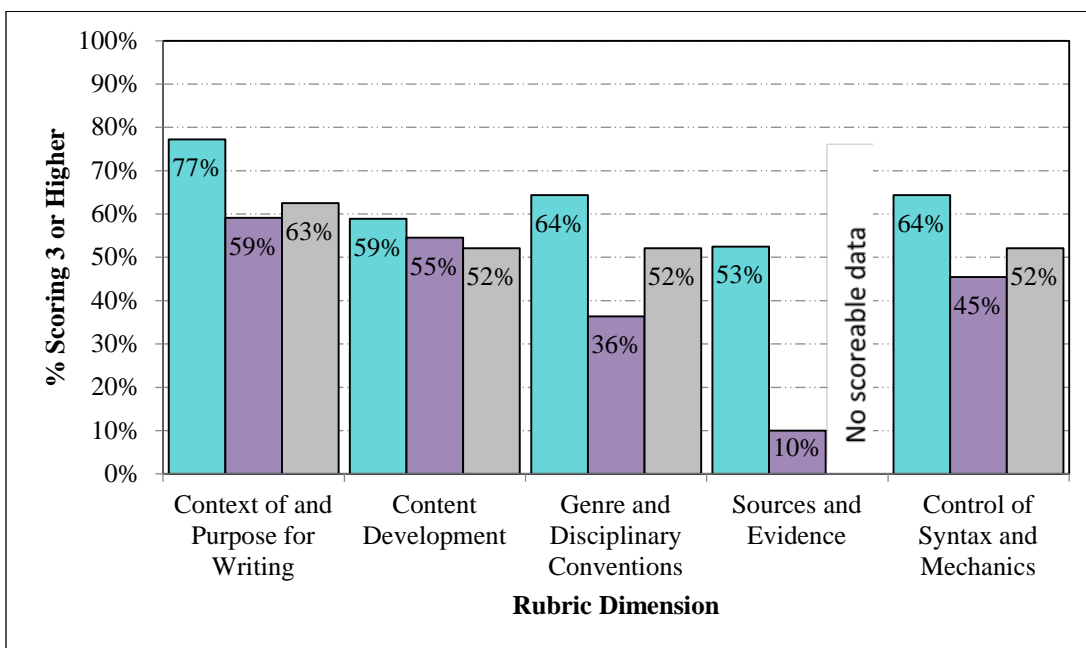


Figure 7. Comparison of Written COM achievement at 3 or higher for AA courses only across all rubric dimensions for 136 artifacts from 24 volunteered assignments. Traditional (teal), n=101, Online (purple), n=11, Dual Enrollment (gray), n=24.

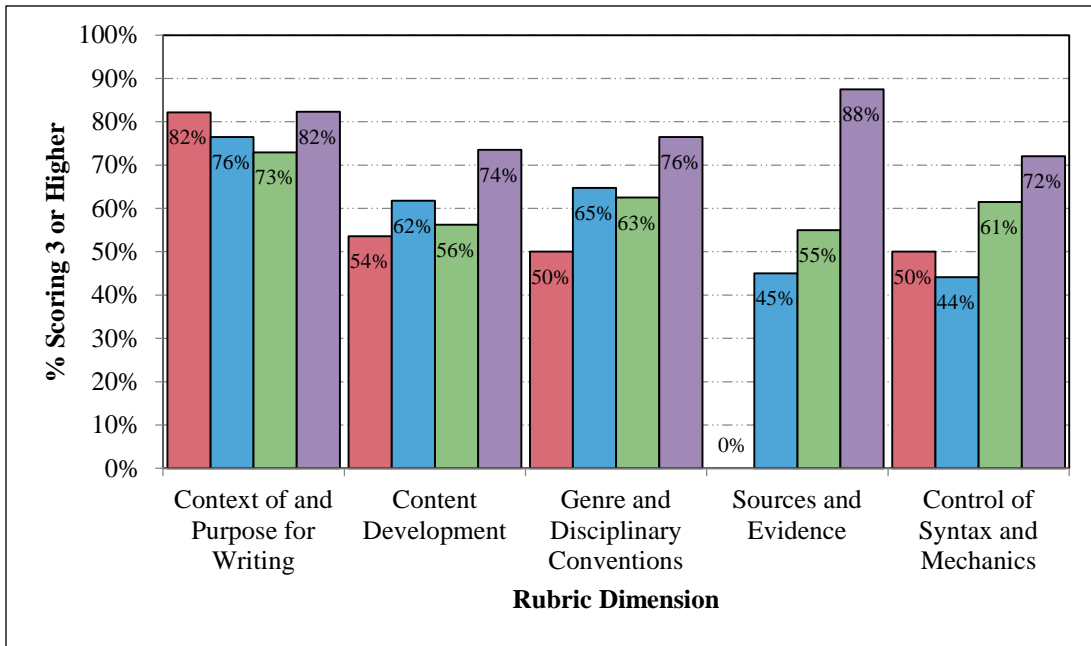


Figure 8. Comparison of Written COM achievement at 3 or higher across all rubric dimensions for 114 artifacts in which credit information could be matched to artifact score. 0-15 credits earned (red), 16-30 credits earned (blue), 31-60 credits earned (green), >60 credits earned (purple). *Credits earned based on number of credits earned entering fall 2015 term.

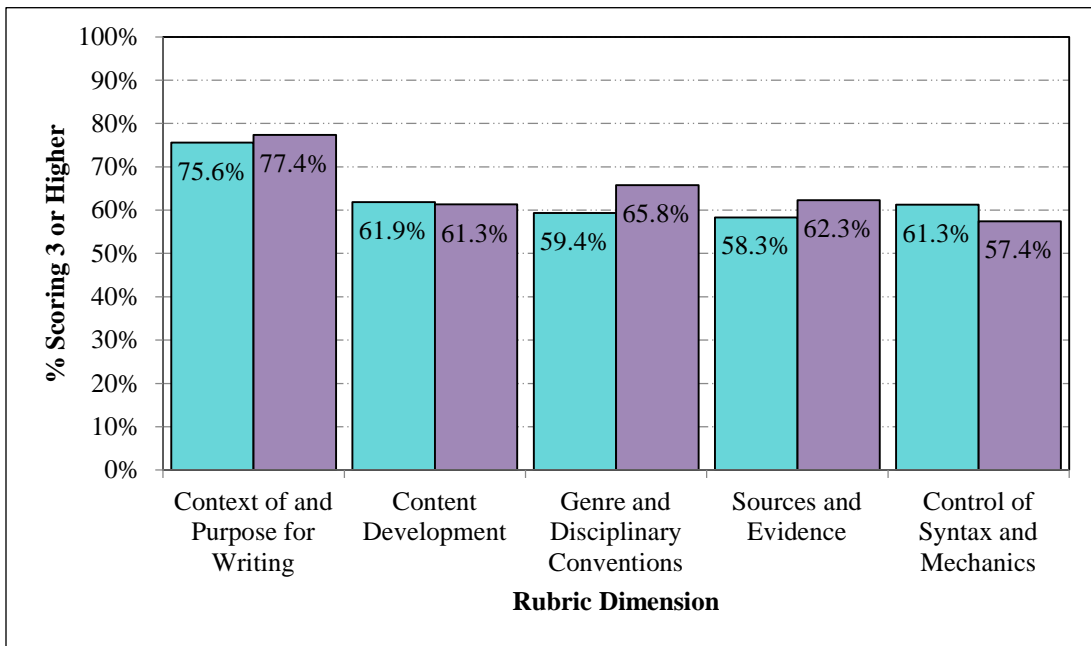


Figure 9. Comparison of Written COM achievement at 3 or higher across all rubric dimensions based on courses with pre-requisites. Courses with pre-requisites (teal, n=80), courses without pre-requisites (purple, n=168).

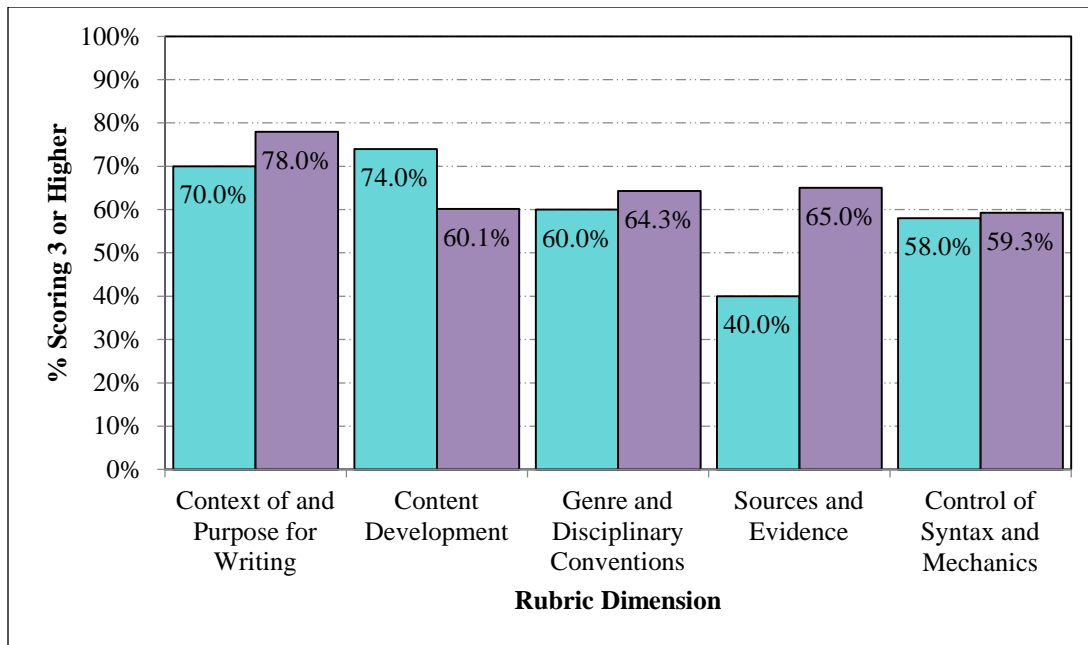


Figure 10. Comparison of Written COM achievement at 3 or higher across all rubric dimensions based on courses with pre-requisites of ENC 1101 Composition I. Courses with ENC 1101 as a pre-requisite (teal, n=25), courses without ENC 1101 as a pre-requisites (purple, n=227).

2.2 LONGITUDINAL STUDY

In AY 2014-2015, the pilot study, one of five rubric dimensions exhibited greater than 60% achievement at level '3'. For AY 2015-2016, that number increased to four of five rubric dimensions. The mean scores by dimension also show substantial increases from AY 2014-2015 to AY 2015-2016. These increases are likely not due to any increase in achievement but rather a solidification of the scoring procedure. For example, in AY 2014-2015, cases where assignment guidelines did not require one or more of the rubric dimensions the scorer may have scored a 0. Under new scorer protocol these assignments would simply be removed from analysis for those particular dimensions. The "Sources and Evidence" dimension, one in which it was reported that a large number of assignments did not require material, exhibit the largest increase (Figure 11). This is the clearest indicator that a change in scorer protocol is the most likely candidate for the cause of the sizeable increases. These protocol changes are also evident in scorer agreement which exhibits improvements in all but one dimension (Figure 12).

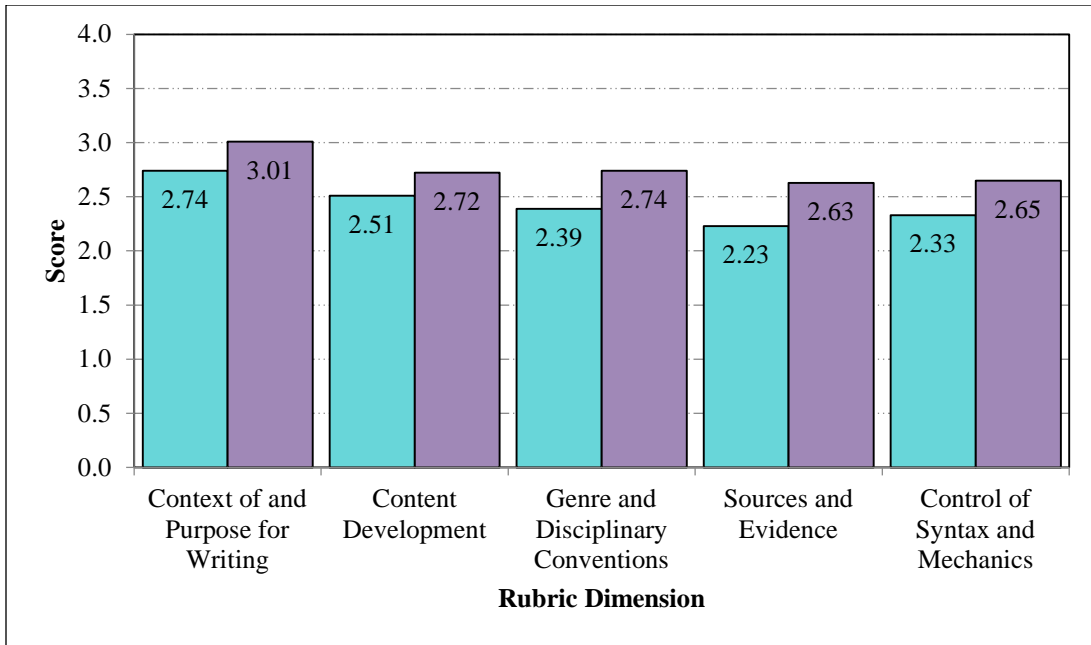


Figure 11. Written COM achievement over time based on mean rubric score by dimension. AY 2014-2015 (teal), AY 2015-2016 (purple).

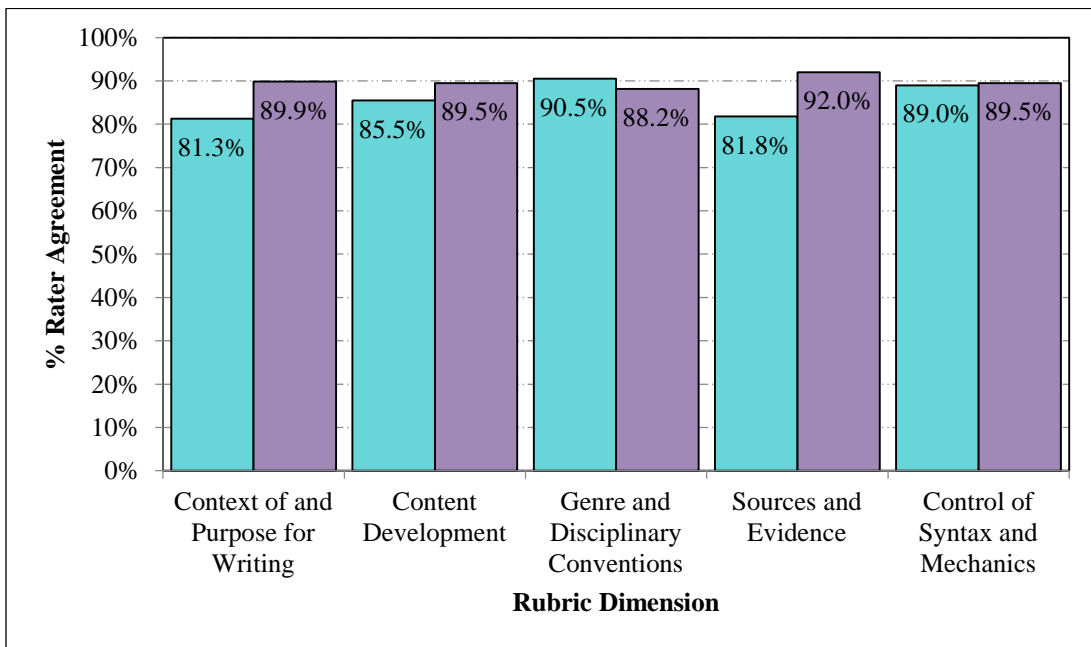


Figure 12. Inter-rater reliability (as %) for Written COM competency for AY 2014-2015 assessment (teal) and AY 2015-2016 assessment (purple). Inter-rater reliability here is reported as percentage (%) +/- 1 agreement.

3 ORAL COMMUNICATION (ORAL COM)

3.1 AY 2015-2016 STUDY

As mentioned in Section 2.1, the COM competency goal is that by completion of the general education requirements, students will be able to communicate effectively using standard English (written or oral). The FSW Learning Assessment Committee will measure the number of artifacts scored a 3 or higher on relevant dimensions of the rubric. These results will serve as a baseline moving forward as, while COM was studied in the pilot program (AY 2014-2015) no oral communication artifacts were recorded. Figures 13 through 18 below depict achievement and inter-rater reliability for the Oral COM competency in college-wide, Associate of Arts (AA) cohorts, as well as value-added studies. Note that not enough samples were collected to create a valid comparison between modalities (traditional, online, and dual enrollment) so no studies were completed. Also, the only pre-requisite difference occurred with ENC 1101, and so a study of pre-requisites compared with ENC 1101 as a pre-requisite as seen in Figures 11 and 12 above for Written COM would be redundant.

Feedback from scorers regarding the AAC&U Value rubric for the Written COM competency included an overall take on the rubrics as well as one main weak point regarding rubric suitability. The overall viewpoint of the AAC&U Value rubric for Oral Communication was that there are clear differences for each criterion and achievement level which make it easy and effective. The rubric works very well for classic speeches and presentations but can become problematic with voice-over type presentations. The only weak point was in regards to dimension achievement level clarity, a concern in the Written COM rubric as well.

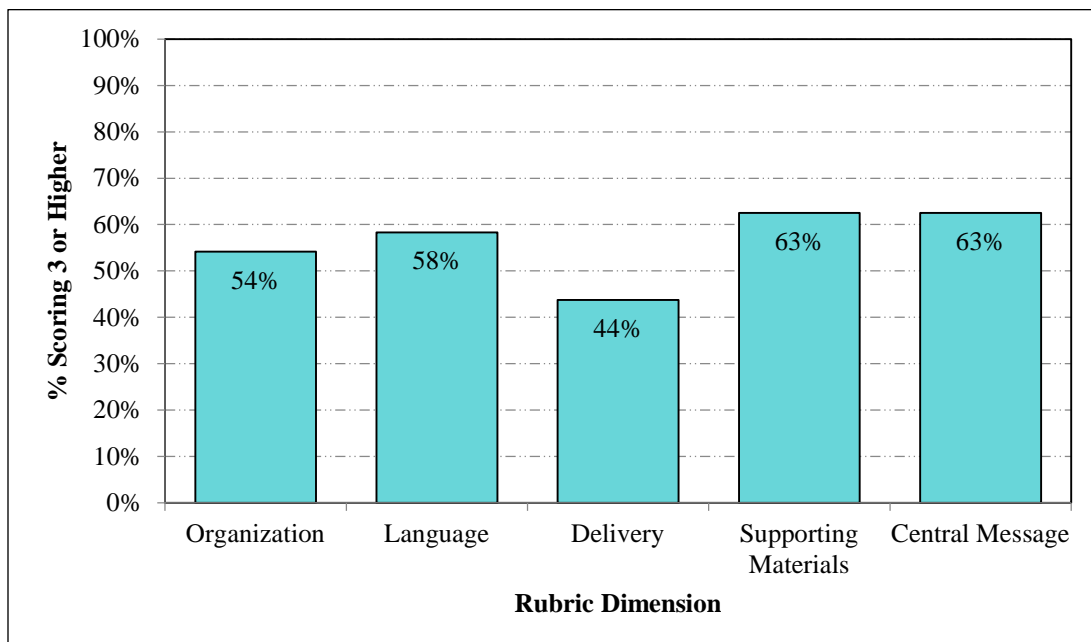


Figure 13. Oral COM Achievement at 3 or higher across all rubric dimensions for 24 artifacts from 3 volunteered assignments.

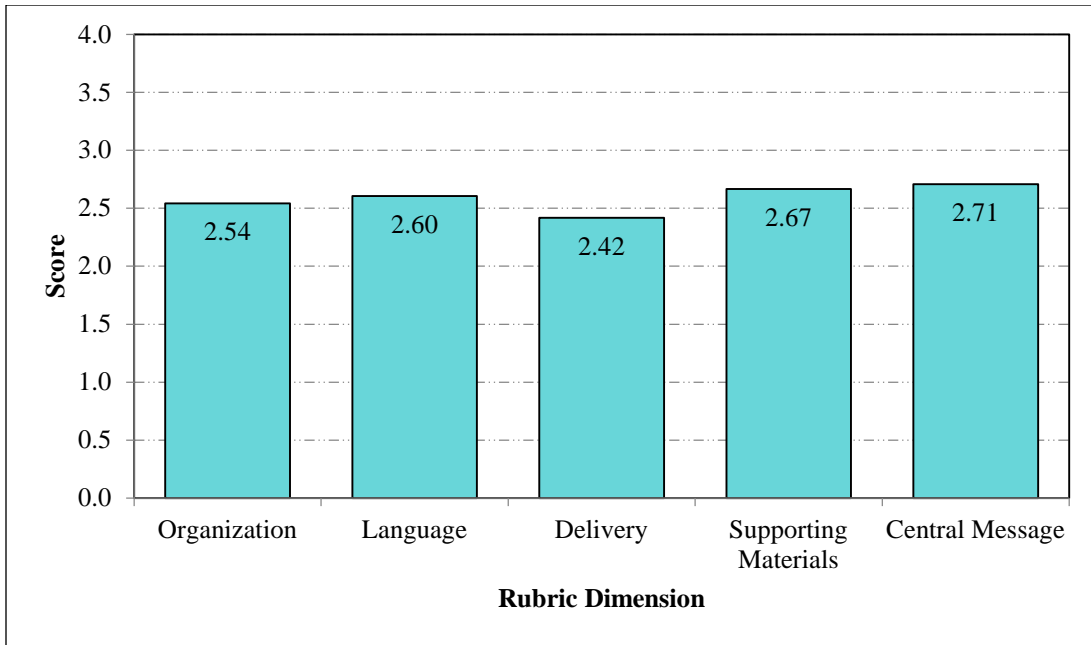


Figure 14. Mean score by rubric dimension for Oral COM for 24 artifacts from 3 volunteered assignments.

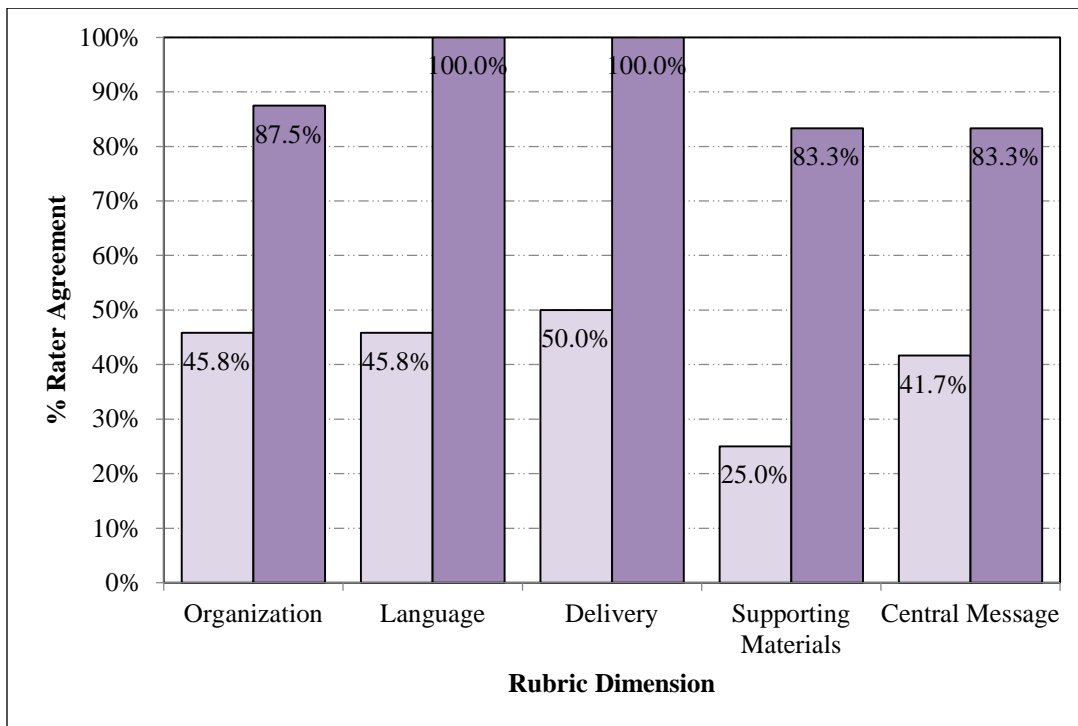


Figure 15. Inter-rater reliability (as %) for oral COM competency. Each artifact was scored by two scorers. Percentage (%) of agreement (teal) is defined as cases where scores by each scorer were identical. Percentage (%) +/- 1 agreement (purple) is defined as cases where scores by each scorer were within 1 of each other.

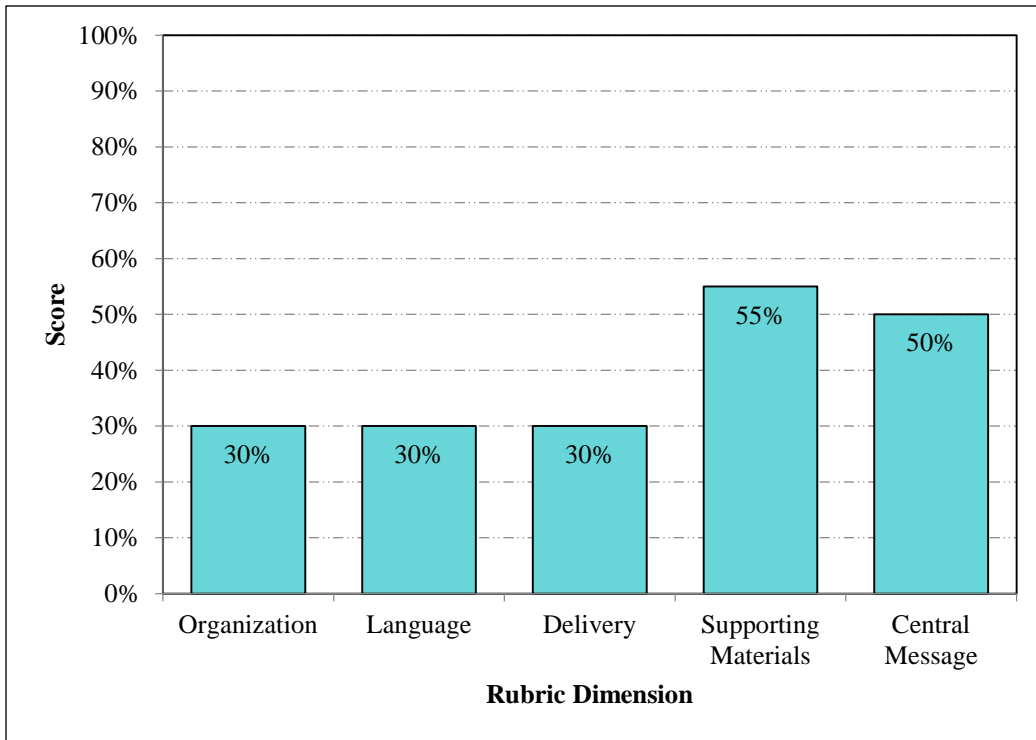


Figure 16. Oral COM Achievement at 3 or higher for AA courses only across all rubric dimensions for 10 artifacts from 1 volunteered assignment.

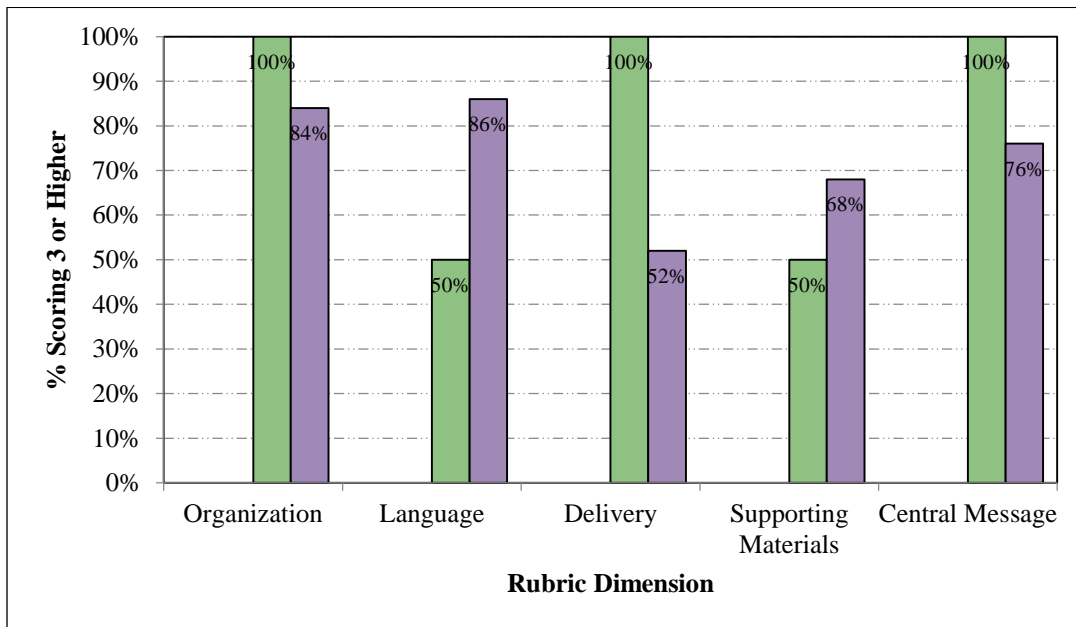


Figure 17. Comparison of Oral COM achievement at 3 or higher across all rubric dimensions for 26 artifacts in which credit information could be matched to artifact score. 0-15 credits earned (red), 16-30 credits earned (blue), 31-60 credits earned (green), > 60 credits earned (purple). *Credits earned based on number of credits earned entering fall 2015 term.

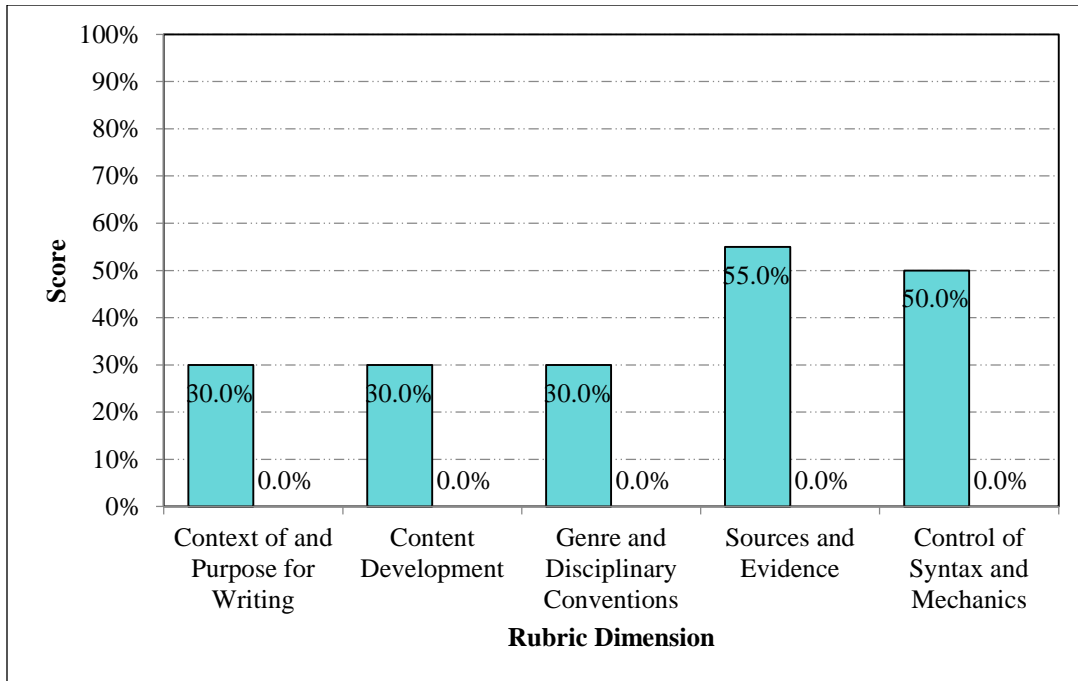


Figure 18. Comparison of Oral COM achievement at 3 or higher across all rubric dimensions based on courses with pre-requisites of ENC 1101 Composition I. Courses with ENC 1101 as a pre-requisite (teal, n=10), courses without ENC 1101 as a pre-requisite (purple, n=14).

4 CONCLUSIONS

FSW's General Education Program was assessed through voluntary submission of assignments identified by faculty as fitting the criteria of both the Written and Oral Communication competency. The study employed the use of the Association of American Colleges & Universities (AAC&U) rubrics. The study established a baseline for the Oral COM competency while continuing the study for the Written COM from the pilot study in AY 2014-2015 for the number of students receiving scores of 3 or higher on relevant dimensions of the rubric. Results also included these same outcomes with respect to courses included in the AA program and value-added studies based on credits earned and pre-requisites.

A drilldown of Written Communication (Written COM) results are as follows:

1. Four of five rubric dimensions exhibit greater than 60% achievement at level '3' (Context of and Purpose for Writing). The only dimension that did not was "Control of Syntax and Mechanics" at 59%.
2. Mean achievement levels for each of the five rubric dimensions of Written COM range from 2.63 to 3.01 on a 4-point scale.
3. In a study comparing online, dual enrollment, and traditional artifacts, online artifacts achievement at level '3' range from 35% to 80% (n = 191/37/24, traditional/online/dual enrollment). The traditional modality exhibits the highest in four of five dimensions. The "Control of Syntax and Mechanics" dimension exhibits a higher percentage for online artifacts. The difference between traditional and online for "Sources and Evidence" is the only case which is statistically significantly different.

4. Inter-rater reliability exhibit rubric scoring agreement ranging from 41% to 45% with a +/- 1 agreement ranging from 88% to 92%.
5. With respect to AA courses, three of five rubric dimensions exhibit greater than 60% achievement at level '3'. The remaining two dimensions ("Content Development" and "Sources and Evidence") exhibit achievement of 57% and 44%, respectively.
6. In a study comparing AA courses with online, dual enrollment, and traditional artifacts, online artifacts achievement at level '3' range from 10% to 77% (n = 101/11/24, traditional/online/dual enrollment). Traditional artifacts achievement is highest in all dimensions. The difference between traditional and online for "Sources and Evidence" is the only case which is statistically significantly different.
7. In a study comparing achievement at 3 or higher across rubric dimensions based on credits earned, achievement increases with increasing credits earned consistently for "Sources and Evidence". The other dimensions exhibit some variation which is consistent with other case studies (Braselton, 2011).
8. In a study comparing achievement at 3 or higher across rubric dimensions based on pre-requisites, in two of five dimensions artifacts stemming from courses which had pre-requisites exhibit a higher achievement.
9. In a study comparing achievement at 3 or higher across rubric dimensions based on pre-requisites of ENC 1101, in one of five dimensions artifacts stemming from courses which had pre-requisites of ENC 1101 exhibit a higher achievement.
10. In a review of scorer feedback, multiple scorers noted that "Sources and Evidence" is not relevant in all COM assignments. This comment was noted in the previous year's study (AY 2014-2015). In response, scorers coordinated to leave the scoring for any rubric dimension blank if that area was not explicitly described in the assignment guidelines provided by the instructor. Also, noted by feedback unrelated to rubric suitability is that of plagiarism. This point was also noted in the AY 2014-2015 study. In response to this, all artifacts were reviewed using TurnItIn to confirm originality before being sent out to the scoring teams. Documented cases of plagiarism of varying levels from full copied text to accidental cases accounted for 11% of artifacts submitted.
11. In a longitudinal study comparing mean rubric scores over time, dimensions exhibit substantial increases from AY 2014-2015 to AY 2015-2016. These increases are likely not due to any increase in achievement but rather a solidification of the scoring procedure.

A drilldown of Oral Communication (Oral COM) results are as follows:

1. Two of five rubric dimensions exhibit greater than 60% achievement at level '3'. The remaining three dimensions exhibit a varying level of achievement ranging from 44% to 58%.
2. Mean achievement levels for each of the five rubric dimensions of Oral COM range from 2.42 to 2.71 on a 4-point scale.
3. No study comparing modalities (traditional, online, and dual enrollment) could be completed because not enough samples were collected to create a valid comparison.
4. Inter-rater reliability exhibit rubric scoring agreement ranging from 25% to 50% with a +/- 1 agreement ranging from 83% to 100%.
5. With respect to AA courses, two of five rubric dimensions exhibit greater than 50% achievement at level '3'. The remaining four dimensions exhibit a similar level of achievement, all at 30%.

6. In a study comparing achievement at 3 or higher across rubric dimensions based on credits earned, achievement increases with increasing credits earned consistently for "Sources and Evidence". The other dimensions exhibit some variation which is consistent with other case studies (Braselton, 2011).
7. In a study comparing achievement at 3 or higher across rubric dimensions based on pre-requisites, in all five dimensions artifacts stemming from courses which had pre-requisites exhibit a higher achievement, however, sample size was limited (n=10).
8. In a review of scorer feedback, multiple scorers noted that there are clear differences for each criterion and achievement level which make it easy and effective. The rubric works very well for classic speeches and presentations but can become problematic with voice-over type presentations. The only weak point was in regards to dimension achievement level clarity, a concern in the Written COM rubric as well.

5 REFERENCES

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