

# Accounting Assessment Report

## Spring 2019

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### 1 INTRODUCTION

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Florida SouthWestern State College's Business Department gathers a multitude of data from various courses as assessment tools. The three courses included in this assessment report are ACG 2021 *Financial Accounting*, ACG 2071 *Managerial Accounting*, ACG 2450 *Accounting Software Applications*, and ACG 2930 *Special Topics / Capstone-Accounting*. The assessment outcomes are intended to provide a baseline and measurement of achievement moving forward as well as investigate the strength and performance of items in the exam. The assessment plan also provides comparisons between dual enrollment (concurrent) and non-dual enrollment students, online versus traditional students, and by site, where possible. Where data is sufficient, additional analyses are provided including distribution studies and longitudinal studies.

For additional detail or further analysis not provided in this report, please contact Dr. Joseph F. van Gaalen, Asst. VP, IR, Assessment & Effectiveness ([jfvangaalen@fsw.edu](mailto:jfvangaalen@fsw.edu); x16965).

### 2 ACG 2021

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#### 2.1 LEARNING OBJECTIVES AND DESCRIPTIVE STATISTICS

The FSW Business faculty defined one area of interest for evaluation in support of the state framework outcome. The SLO related to ACG 2021 is:

- SLO 1 – The Comprehensive Assignment 1 from Financial Accounting course ACG 2021 will be used for this assessment method where the benchmark of 70% of students will illustrate a proficiency of 70% or higher within this assessment during the 2018/19 academic year.

During the spring 2019 semester, 79 artifacts were scored tallied from 6 of 9 sections of ACG 2021 with an enrollment of 252, a representation of 31%. Of the 79 artifacts, the mean score is 86.6% (Table 1). The goal that 70% of students will illustrate a proficiency of 70% or higher within this assessment during the 2018/19 academic year was met where 89% of artifacts score 70% or higher. Score distribution (Figure 1) is centered on 100% and exhibits a large negative skew, meaning results are tending heavily towards more positive values (Starkweather, 2010).

	<i>Comprehensive Assignment</i>
<b>% Scoring 70% or Higher</b>	<b>89%</b>
n	79
Median	95.2
Mode	100
Mean	86.6
Standard deviation	21.72
Skewness	-2.45
Kurtosis	5.98

Table 1. Descriptive statistics for ACG 2021 common course assessment.

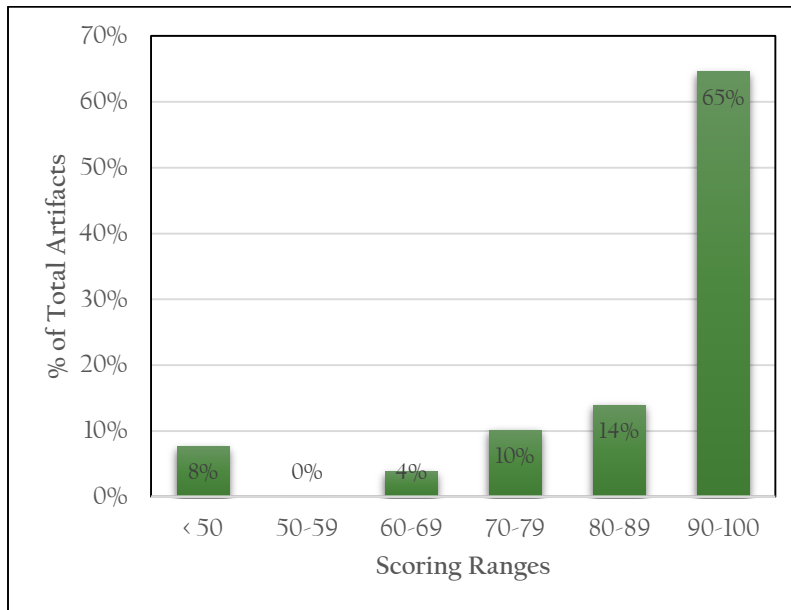


Figure 1. Score distribution of Comprehensive Assignment.

## 2.2 EXPLORATORY ANALYSIS AND SIGNIFICANCE TESTING

Multiple comparisons of artifact scores across varying formats, campuses, and student types were made, where possible, in order to add depth to the causes of the distribution of the artifacts. Each course was divided into the appropriate subgroups to perform the analysis. In cases where a subgroup is not represented in the course comparisons were not conducted and are noted for comprehensiveness.

### 2.2.1 Dual Enrollment (Concurrent) to Non-Dual Enrollment Comparison

No dual enrollment (concurrent) sections of the course were run during spring 2019 so no comparison study between dual enrollment and non-dual enrollment could be completed.

### 2.2.2 Online to Traditional Comparison

During the spring 2019 semester, 49 total online artifacts were collected from ACG 2021 and 30 traditional artifacts were collected from ACG 2021. A comparison of basic statistics is provided in Table 2. Online artifacts mean scores are 4.5 lower than traditional artifacts. Differences in the means were tested for significance using a Welch's t-test according to standard methods (Davis, 1973; McDonald, 2009; Wilkinson, 1999) and were found to not be statistically significantly different. Therefore, we cannot reject the null hypothesis that the difference in the means of the online and traditional artifacts

are equal to 0, and we cannot conclude this with a 95% confidence that the differences in scores are not solely due to chance.

df = 77		
Online mean		84.9
Online standard deviation		22.52
Traditional mean		89.4
Traditional standard deviation		20.41
Effect size		0.21
p-value		0.361

Table 2. Comparison of mean scores for online and traditional artifacts. 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 results exhibit what Cohen (1988) would consider a small effect size. In other words, non-overlap score distribution from online artifacts to traditional artifacts is approximately 15%. For a graphical representation of this see Figure 2.

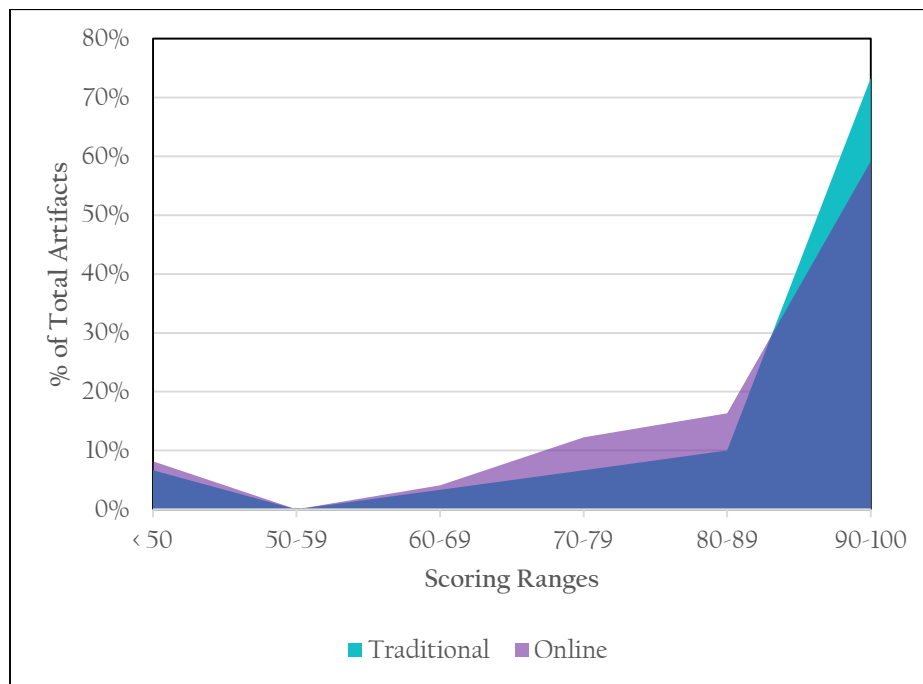


Figure 2. Score distribution for online (purple) and traditional (aqua) artifacts of ACG 2021.

### 2.2.3 Comparison by Campus/Site

Of the 79 artifacts collected from ACG 2021, 13 originated from the Charlotte Campus, 49 from FSW Online, and 17 from the Thomas Edison (Lee) Campus. A comparison of mean scores is provided in Table 3. The Thomas Edison campus exhibits the highest mean score when compared with other sites (90.6%). FSW Online exhibits the lowest mean score (84.9%).

	Mean	Standard Deviation
Charlotte	87.9	26.36
FSW Online	84.9	22.52
Thomas Edison (Lee)	90.6	15.17

Table 3. Comparison of mean scores by site. Bold denotes highest among all sites.

A plot comparing score distributions by site is presented in Figure 3. All sites exhibit similar distributions with large negative skews (scores tending towards higher values) and large peaks centered on 90-100. A one-way analysis of variance was used to compare means at each site. Results of the ANOVA do not exhibit a statistically significant difference between sites (see Table 4). Therefore, we cannot reject the null hypothesis that the mean scores at each site are equal to each other and we cannot conclude with a 95% confidence that the differences in scores are not solely due to chance.

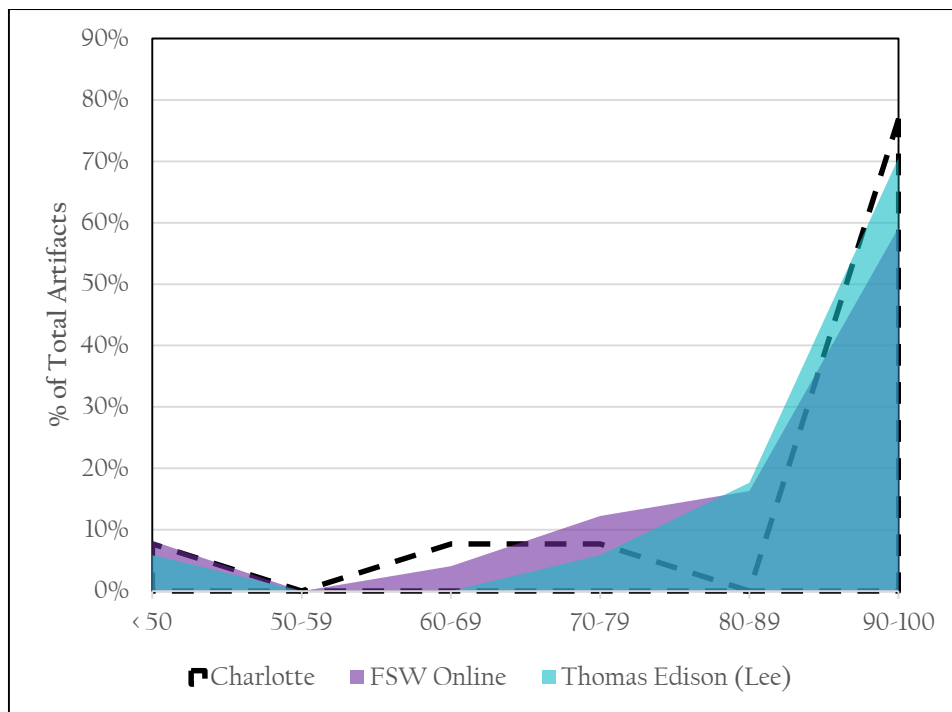


Figure 3. Comparison of score distribution by site.

Source of Variation	Sum of squared differences	df	Mean Squares	F <sub>obs</sub>	p-value	F <sub>crit</sub>
Between Sites	439.4	2	219.7	0.46	0.634	3.12
Within Sites	36,365.0	76	478.5			
Total	36,804.4					

Table 4. Results of one-way ANOVA of mean scores at each site for ACG 2021.

### 2.3 LONGITUDINAL STUDY

As further data is collected in coming terms, this section will track achievement through time and highlight strengths, weaknesses and any long term trends beginning with fall 2019 data.

### 3 ACG 2071

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#### 3.1 LEARNING OBJECTIVES AND DESCRIPTIVE STATISTICS

Using a common course assessment, the FSW Business faculty defined a rubric to be utilized in the assessment. This assessment will be made using the Comprehensive Problem 2 Part 5 (part f) Evaluation rubric items; specifically, rubric items:

- Paper follows the guidelines and covers all of the requirements of the assignment (first rubric item)
- Paper ties in course concepts. uses information presented in class and/or in the textbook (third rubric item)
- Student identifies the real problem in the case and proposes solution to solve the problem (fourth rubric item).

Each of these rubric items are a maximum 20 points each for a total of 60 points. Students must earn a minimum of 42 points (70%) to show proficiency. The benchmark of 70% of students will illustrate a proficiency of 70% or higher within this assessment during the 2018 - 2019 academic year. A secondary assessment will also be used. The Module 2 Test from Managerial Accounting course (ACG 2071) will be used for this assessment method. The benchmark of 70% of students will illustrate a proficiency of 70% or higher within this assessment during the 2018-2019 academic year.

For the spring 2019 assessment, 34 artifacts were collected for ACG 2071 from 3 of 6 course sections. Descriptive statistics for achievement are shown in Table 5 and Figure 4. The goal that 70% of students will illustrate a proficiency of 70% or higher within this assessment was met. Achievement percentages for the three focus areas are all 100%. However, it is interesting to note that a rubric dimension not in focus for this year's study on APA format exhibits achievement of only 68%. Additionally, the goal that 70% of students will illustrate a proficiency of 70% or higher within Module Test 2 was not met. Only 60% of students met that achievement.

<i>Learning Outcome</i>	<i>% Meeting 70%</i>
Paper follows the guidelines & covers all of the requirements of the assignment	<b>100%</b>
Topic supports the required amount of reliable research using proper APA format	<b>68%</b>
Paper ties in course concepts. Uses information presented in class and/or in the textbook.	<b>100%</b>
Student identifies the real problem in the case and proposes solutions to solve the problem.	<b>100%</b>
Writing quality	<b>88%</b>
<b>TOTAL</b>	<b>100%</b>

Table 5. Student achievement level by SLO for ACG 2071.

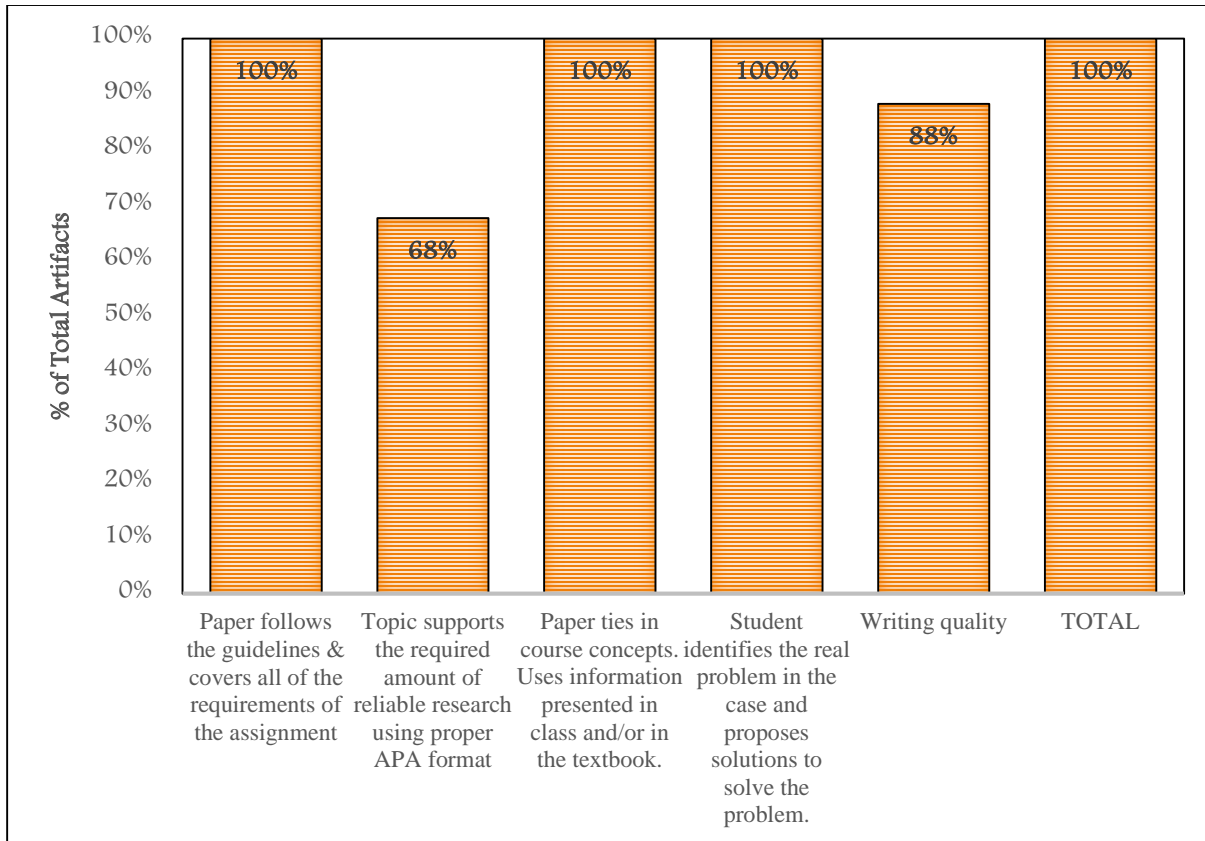


Figure 4. Percentage of goal achievement for assessment.

### 3.2 EXPLORATORY ANALYSIS AND SIGNIFICANCE TESTING

Multiple comparisons of artifact scores across varying formats, campuses, and student types were made, where possible, in order to add depth to the causes of the distribution of the artifacts. Each course was divided into the appropriate subgroups to perform the analysis. In cases where a subgroup is not represented in the course comparisons were not conducted and are noted for comprehensiveness.

#### 3.2.1 Dual Enrollment (Concurrent) to Non-Dual Enrollment Comparison

No dual enrollment (concurrent) sections of the course were run during spring 2019 so no comparison study between dual enrollment and non-dual enrollment could be completed.

#### 3.2.2 Online to Traditional Comparison

During the spring 2019 semester, 7 online artifacts were collected from ACG 2071 and 27 traditional artifacts were collected from ACG 2071. Online and traditional artifacts are comparable in three of five dimensions as well as the overall score, however, it is important to note that sample size for FSW online is small (n=7). Achievement of the goal is met in both online and traditional independently. The very low achievement in the APA format dimension seen in combined scores (Section 3.1 above) is noticeable in both online and traditional, although less so for the former (86%) compared to the latter (63%).

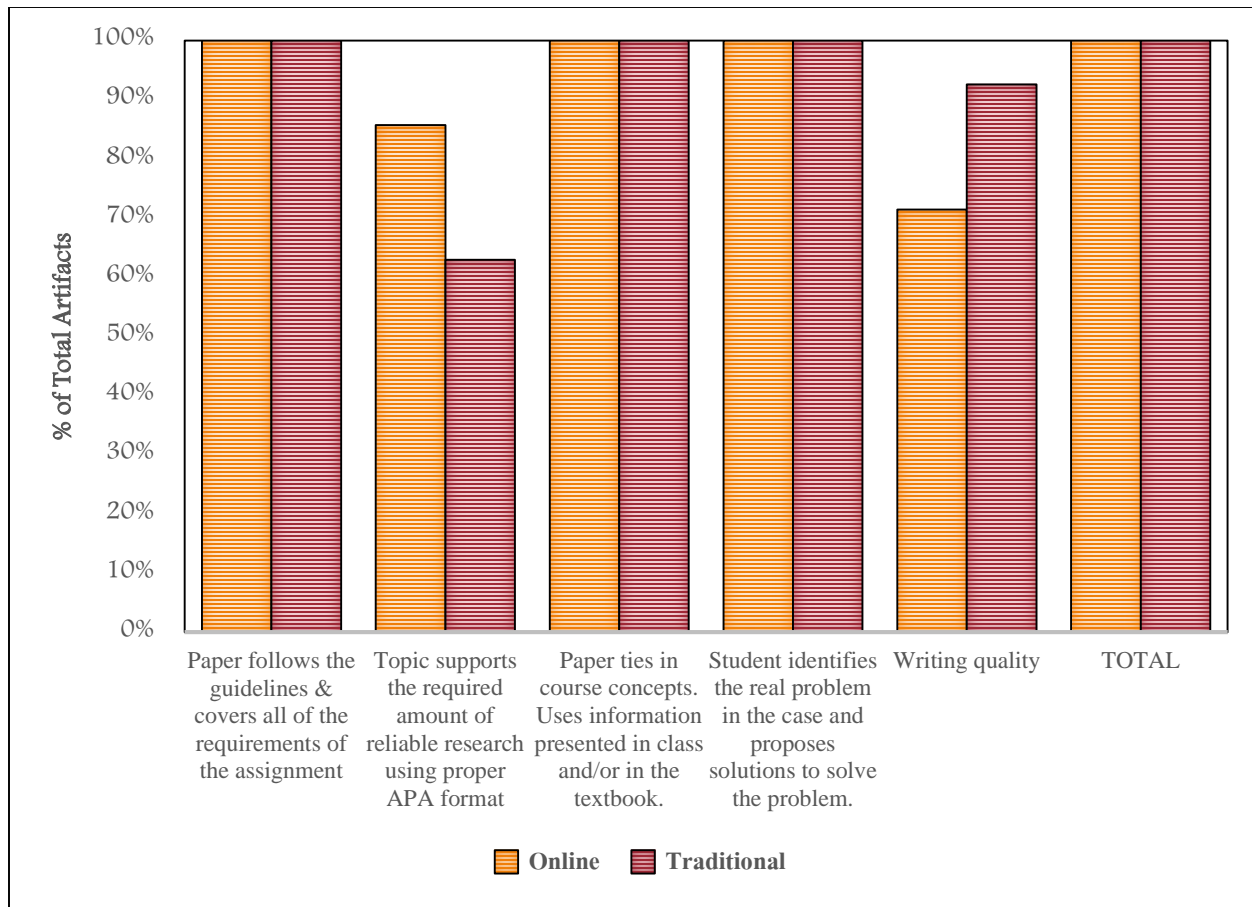


Figure 5. Comparison of achievement between online and traditional artifacts.

### 3.2.3 Comparison by Campus/Site

Data was only collected from two sites (FSW Online and the Thomas Edison campus) so comparison by site is included in Section 3.2.2 above.

## 3.3 LONGITUDINAL STUDY

As further data is collected in coming terms, this section will track achievement through time and highlight strengths, weaknesses and any long term trends beginning with fall 2019 data.

## 4 ACG 2450

The course was offered in spring 2019. However, it is not clear which assignment is intended to be used for assessment based on the manner in which the assignments are utilized in the Learning Management System (LMS). For example, a “Chapter 2” assignment referencing Quickbooks, both of which match the common assessment directive, is measured with a rubric in the LMS that is labeled “Chapter 1” and includes differing outcomes. As a result, it is recommended this be clarified, or assessment itself be changed for future studies.

## 5 ACG 2930

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The course was not offered in spring 2019 and so no study could be completed.

## 6 CONCLUSIONS

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FSW's Business Department has employed a common assignment for courses as assessment tools. The three courses included in this assessment report are ACG 2021 *Financial Accounting*, ACG 2071 *Managerial Accounting*, ACG 2450 *Accounting Software Applications*, and ACG 2930 *Special Topics / Capstone-Accounting*. The results are intended to provide a baseline achievement moving forward.

### 6.1 ACG 2021

A drill-down of ACG 2021 results are as follows:

1. In a study of outcome objective, "SLO 1 – The Comprehensive Assignment 1 from Financial Accounting course ACG 2021 will be used for this assessment method where the benchmark of 70% of students will illustrate a proficiency of 70% or higher within this assessment during the 2018/19 academic year." the goal that 70% of students will illustrate a proficiency of 70% or higher within this assessment during the 2018/19 academic year was met where 89% of artifacts score 70% or higher.
2. In a study of score distribution, scores are centered on 100% and exhibits a large negative skew, meaning results are tending heavily towards more positive values.
3. No dual enrollment (concurrent) sections of the course were run during spring 2019 so no comparison study between dual enrollment and non-dual enrollment could be completed.
4. In a comparison of online to traditional artifacts, online artifacts mean scores are 4.5 lower than traditional artifacts. Differences in the means are found to not be statistically significantly different.
5. In a cross-campus comparison, the Thomas Edison campus exhibits the highest mean score when compared with other sites (90.6%). FSW Online exhibits the lowest mean score (84.9%). Results are not statistically significantly different.

### 6.2 ACG 2071

A drill-down of ACG 2071 results are as follows:

1. In a study the first outcome objective, the benchmark of 70% of students will illustrate a proficiency of 70% or higher within this assessment was met with achievement in the three focus areas all at 100%.
2. In a study of the second outcome objective, the goal that 70% of students will illustrate a proficiency of 70% or higher within Module Test 2 was not met. Only 60% of students met that achievement.
3. No dual enrollment (concurrent) sections of the course were run during spring 2019 so no comparison study between dual enrollment and non-dual enrollment could be completed.
4. In a comparison of online to traditional artifacts, both online and traditional artifacts are comparable in three of five dimensions as well as the overall score, however, it is important to note that sample size for FSW online is small (n=7). Achievement of the goal is met in both online and traditional independently. The very low achievement in the APA format dimension



seen in combined scores is noticeable in both online and traditional, although less so for the former (86%) compared to the latter (63%).

5. Data was only collected from two sites (FSW Online and the Thomas Edison campus) so comparison by site is included in Bullet #3 above.

### 6.3 ACG 2450

The course was offered in spring 2019. However, it is not clear which assignment is intended to be used for assessment based on the manner in which the assignments are utilized in the Learning Management System (LMS). For example, a “Chapter 2” assignment referencing Quickbooks, both of which match the common assessment directive, is measured with a rubric in the LMS that is labeled “Chapter 1” and includes differing outcomes. As a result, it is recommended this be clarified, or assessment itself be changed for future studies.

### 6.4 ACG 2930

The course was not offered in spring 2019 and so no study could be completed.

## 7 REFERENCES

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