

Foreign Language Assessment Report

Fall 2017

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1 INTRODUCTION

Florida SouthWestern's Foreign Language Department employs a common course assessment to measure student progress in course level objectives, a practice shown to be effective in establishing data driven instruction (Hall, 2010). Courses included in assessment are: FRE 1120 *Elementary French I*, FRE 1121 *Elementary French II*, SPN 1120 *Beginning Spanish I*, and SPN 1121 *Beginning Spanish II*. Through achievement of the courses students will acquire and demonstrate competency in speaking, writing, reading comprehension and listening comprehension in standard Spanish or French at the beginner's level. The assessment outcomes outlined below define the method of assessment for each course assessment as well as measure current Student Learning Outcomes (SLOs) and identify areas for future SLOs to be assessed. Additionally, the plan provides information on achievement levels of Dual Enrollment artifacts compared with non-Dual Enrollment, as well as Online artifacts compared with traditional artifacts as highlighted in the course level assessment plan. This report provides achievement analysis for both fall 2016 as well as longitudinal studies, where applicable.

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

2 FRENCH

The lead professor (and sole full-time faculty member) of the French Department departed Florida SouthWestern State College at the end of AY 2015-16. The new incoming professor elected to start fresh with a new assessment tool. The AY 2016-17 and AY 2017-2018 is currently being used to develop and/or pilot a new tool for implementation in the fall 2018 term. As a result, no analyses for AY 2017-18 are included herein.

3 SPANISH

During the fall 2017 semester 16 sections of SPN 1120 Beginning Spanish I were offered. Of those, artifacts from a common final were collected from all 16 sections. A total of 339 students were enrolled in SPN 1120. Of those, 266 artifacts were collected representing a sample size of 78% of the population. Five sections of SPN 1121 Beginning Spanish II were offered in fall 2017. Of those, artifacts were collected from a common final from 4 of 5 sections. A total of 91 students were enrolled in SPN 1121. Of those, 45 artifacts were collected representing a sample size of 50%.

3.1 SPN 1120

3.1.1 Descriptive Statistics & Learning Objectives

Using a common course assessment, the FSW Spanish faculty defined three areas of interest for evaluation that apply to SPN 1120. The Student Learning Outcomes (SLOs) and their objectives or measures of success are:

- SLO 1: Students will be able to understand spoken Spanish. The faculty established measure of success for this SLO is for 80% of students to demonstrate competency with a score of 70% or better in the oral comprehension exam sections (Section I).
- SLO 2: Students will be able to understand written Spanish. The faculty established measure of success for this SLO is for 80% of students to demonstrate competency with a score of 70% or better in the reading comprehension exam sections (Section II and III).
- SLO 3: Students will be able to write effectively in the Spanish language. The faculty established measure of success for this SLO is for 80% of students to demonstrate competency with a score of 70% or better in the writing competency exam sections (Section IV and V).

The faculty established measure of success for SLO 1, 80% of students scoring 70% or higher in Section I, was nearly met as results exhibit 75% of artifacts score 70% or higher in the oral competency exam section (Section I) (Table 1). The faculty established measure of success for SLO 2, 80% of students scoring 70% or higher in Sections II and III, was partially met. Results exhibit 54% of artifacts scored 70% or higher in Section II and 87% of artifacts scored 70% or higher in Section III. The faculty established measure of success for SLO 3, 80% of students scoring 70% or higher in Sections IV and V, was partially met. Results exhibit 77% of artifacts scored 70% or higher in Section IV and 77% of artifacts scored 70% or higher in Section V. For a graphical representation of SLO achievement, see Figure 1.

n = 266	Section I (Oral)	Section II (Reading)	Section III (Reading)	Section IV (Written)	Section V (Written)	Combined (Overall)
Goal	80% of artifacts scored \geq 70% for all sections					
% above 70%	75%	54%	87%	77%	77%	
Mean (as %)	79%	68%	86%	77%	77%	74%
Median (as %)	87%	72%	90%	87%	85%	77%
Section Score Max	15	60	15	15	20	125
Section Mean	11.9	41.1	12.9	11.5	15.4	92.8
Section Median	13	43	13.5	13	17	95.8

Table 1. Percentage of student achievement level as per SLOs (SPN 1120).

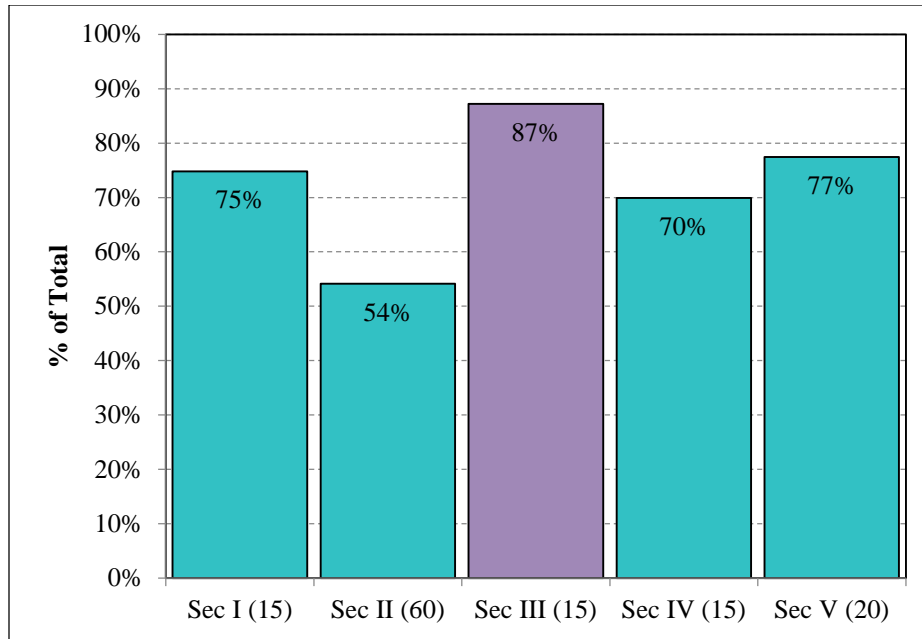


Figure 1. SLO achievement for SPN 1120 by exam section (Percentage of student achievement level as per SLOs). Purple denotes having met objective.

3.1.2 Exploratory Analysis & Significance Testing

Multiple comparisons of artifact scores across varying formats, campuses, and student types were made to more thoroughly detail the assessment data. Each course was divided into appropriate subgroups such as by campus or enrollment status to perform the analysis. Where possible, additional methods of analysis were conducted to provide a broader picture of these comparisons.

3.1.2.1 Dual Enrollment to Non-Dual Enrollment Comparison

No dual enrollment sections of the course were run during fall 2017 so no comparison study between dual enrollment and traditional courses could be completed.

3.1.2.2 Online to Traditional Comparison

During the fall 2017 semester, three online sections reported data. From those course sections, 43 total online artifacts were collected from SPN 1120 and 226 traditional artifacts were collected from SPN 1120. A comparison of basic statistics is provided in Table 2. Online artifacts mean scores are 3.3 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 differences 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.

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 8%. For a graphical representation of this see Figure 2.

df = 264	
Online mean	71.2
Online standard deviation	23.08
Traditional mean	74.5
Traditional standard deviation	18.08
Effect size	0.11
p-value	0.370

Table 2. Comparison of mean scores (as %) for online and traditional artifacts. Positive effect sizes indicate a higher mean score for traditional artifacts.

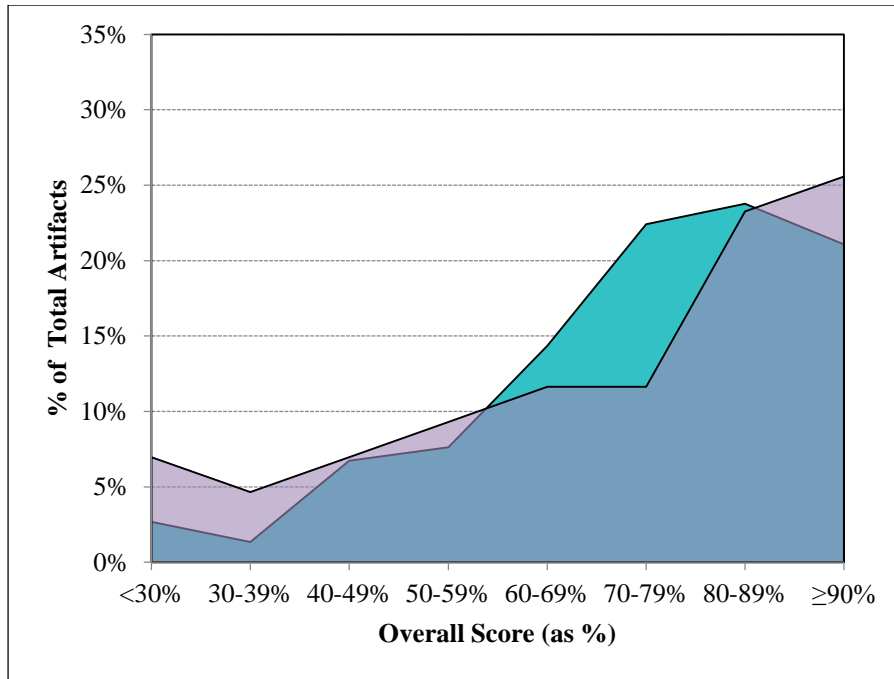


Figure 2. Score distribution for online (purple) and traditional (aqua) artifacts of SPN 1120.

3.1.2.3 Comparison by Campus/Site

Of the 266 artifacts collected from SPN 1120, 55 originated from the Charlotte campus, 39 from the Collier campus, 43 from FSW Online, and 129 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 3.

	Section I	Section II	Section III	Section IV	Section V	Combined Score
<i>Rubric Max</i>	15	60	16	15	20	100
Charlotte	9.8	38.3	11.5	11.4	13.5	84.5
Collier	13.0	41.0	14.0	13.5	17.2	98.7
FSW Online	11.6	37.1	13.4	11.4	15.4	89.0
Thomas Edison (Lee)	12.5	43.6	12.9	11.0	15.7	95.8

Table 3. Comparison of mean scores by site for SPN 1120. Bold denotes highest mean score in that dimension among all sites. Rubric dimensions identified in SLOs in blue.

Collier campus exhibits higher scores in Sections I, III, IV, and V of the exam (Figure 3). Thomas Edison scores highest in Section II. The Charlotte campus scores the lowest in three of five sections.

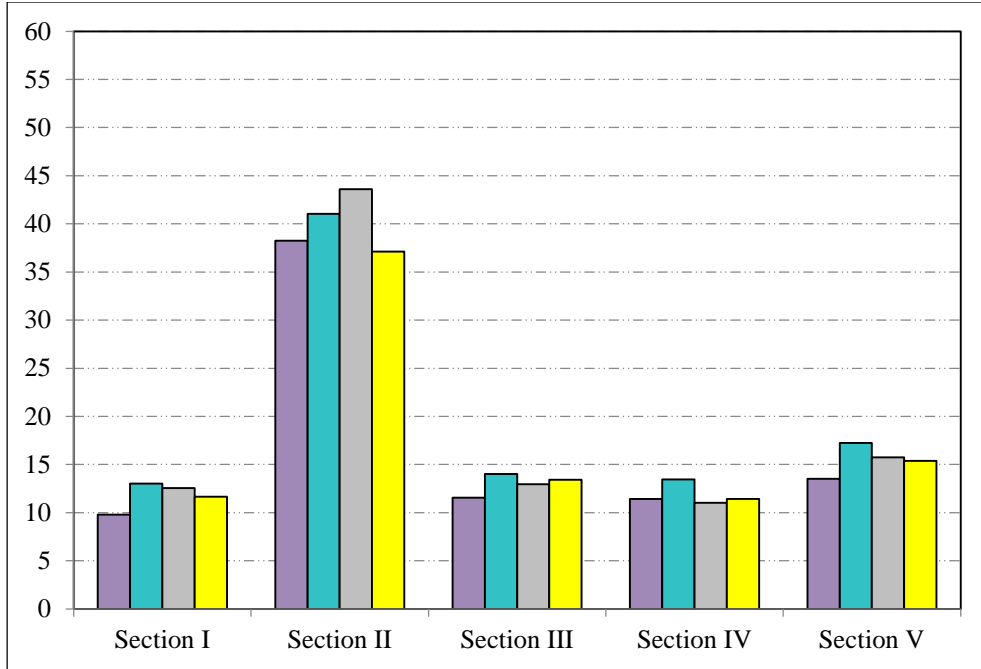


Figure 3. Comparison of mean score of exam sections by site with Charlotte in purple, Collier in teal, Thomas Edison in gray, and FSW Online in yellow.

A plot comparing descriptive statistics of the combined (overall) scores by site is presented in Figure 4. The Charlotte campus exhibits a distinct distribution compared with other sites. By comparison, Charlotte exhibits a peak in score distribution centered on 60-69% where other sites are 80-89% or higher.

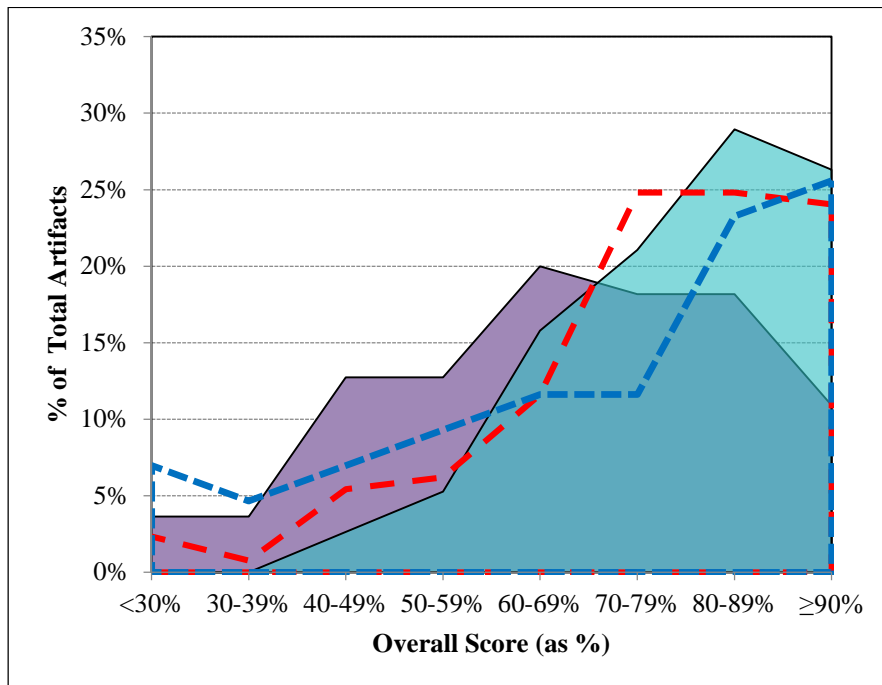


Figure 4. Comparison of artifact score distribution for Charlotte in purple, Collier in teal, Thomas Edison in red dashed line, and FSW Online in blue dashed line.

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 4). 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	6905.6	3	2301.9	4.51	0.004	2.64
Within Sites	133,611.1	262	510.0			
Total	140,516.7	265				

Table 4. Results of one-way ANOVA of combined rubric scores at each site for SPN 1120.

3.1.3 Data Distribution & Longitudinal Study

3.1.3.1 Data Distribution

A histogram depicting the distribution of scores across each exam section is shown in Figure 5. All sections exhibit peaks above 90% with the distribution trailing down with decreasing score. This is a change from the past, where Section II, exhibited a peak at 80-89% or lower. Section II still exhibits more widely distributed scores, with a substantially smaller peak above 90% than the other sections.

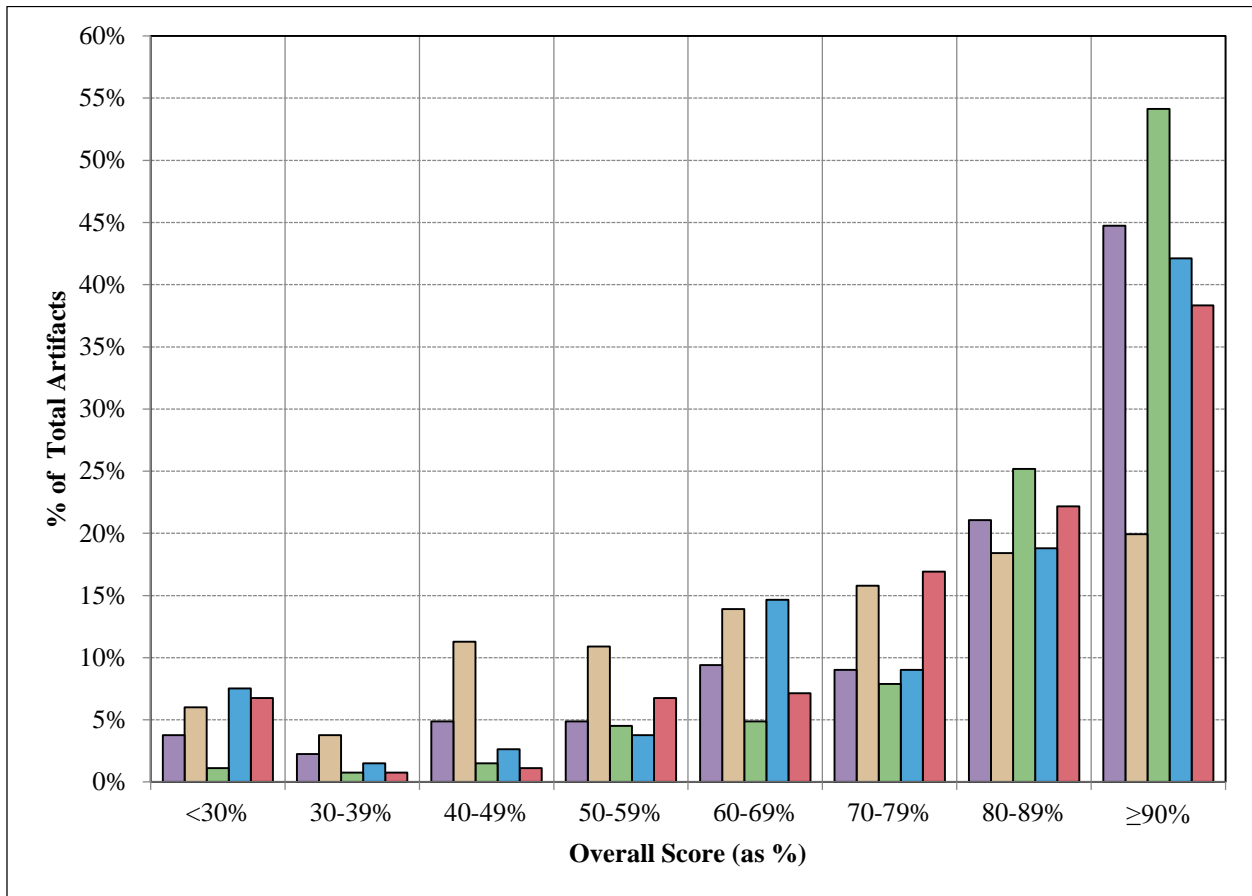


Figure 5. Histogram of SPN 1120 exam sections scores for fall 2017. Purple – Section I, Brown – Section II, Green – Section III, Blue – Section IV, and Red – Section V.

To describe the behavior of the section scores based on overall achievement, a color map, or binary raster image, was created by calculating the mean scores for each exam section as a function of combined score (Figure 6). The color represents the mean section score achieved overall score as shown in the x-axis as a percentage.

A review of the colormap in Figure 6 shows that Section II is consistently the lowest performing compared to other sections between the ranges of 65-94%. For example, in the 75-79% range, the mean score for Section II is 62%, while the other four sections range from 78-87%. Additionally, Section III is over performing at the lowest overall scores. At the 50-54% range, the Section III mean score is 75%, whereas other sections range from 40%-56%.

	Section I	Section II	Section III	Section IV	Section V	Scale
≥ 95%	99%	93%	99%	98%	97%	100%
90-94%	94%	84%	97%	93%	92%	90%
85-89%	90%	79%	91%	89%	85%	80%
80-84%	85%	70%	90%	80%	83%	70%
75-79%	80%	62%	87%	78%	78%	60%
70-74%	77%	58%	81%	69%	73%	50%
65-69%	65%	52%	74%	77%	68%	40%
60-64%	65%	50%	76%	52%	68%	30%
55-59%	50%	47%	65%	66%	51%	
50-54%	49%	41%	74%	40%	56%	
< 50%	28%	34%	57%	21%	27%	

Figure 6. (Top) Colormap of mean scores for each exam section based on overall scoring bin for SPN 1120. An exam section with hotter colors (reds) compared with other sections means section achievement is stronger in that area than others. An exam section with colder colors (blues) compared with other sections means section achievement is weaker in that area than others.

3.1.3.2 Longitudinal Study

Further description of achievement over time in SPN 1120 is provided in Table 5 and Figure 7. Both demographics of students and student count vary by semester it may be more reasonable to compare like semesters (Fall vs. Fall, Spring vs. Spring) (see <http://www.fsw.edu/facultystaff/assessment/history> for further details). Because some exam sections have different maximum scores (15, 20, and 60), to see which of the five sections of the exam exhibits the strongest achievement it may be best to relate them in terms of percent. As a percentage, Section III consistently exhibits the highest mean scores over time ranging from 80% to 89%. Section II is consistently the lowest over time ranging from 64% to 75%.

	Section Max	Fall 2013 n=58	Spring 2014 n=90	Fall 2014 n=93	Spring 2015 n=73	Fall 2015 n=122	Spring 2016 n=141	Fall 2016 n=240	Spring 2017 n=89	Fall 2017 n=266
Section I (Oral)	15	12.1	12.4	11.8	11.5	10.8	11.5	11.9	11.9	11.9
Section II (Reading)	60	40.4	45.1	40.5	39.8	41.8	38.4	39.8	41.0	41.1
Section III (Reading)	15	12.0	13.2	12.8	12.8	12.4	13.3	12.8	13.0	12.9
Section IV (Written)	15	10.6	11.7	11.1	10.9	11.5	10.5	10.9	11.0	11.5
Section V (Written)	20	16.2	16.8	16.5	16.4	15.2	15.7	15.2	16.7	15.4
Combined (Overall)	125	91.3	99.2	92.8	91.4	91.6	89.5	90.6	93.6	92.8

Table 5. Comparison of mean scores for SPN 1120 for fall 2013 through fall 2017.

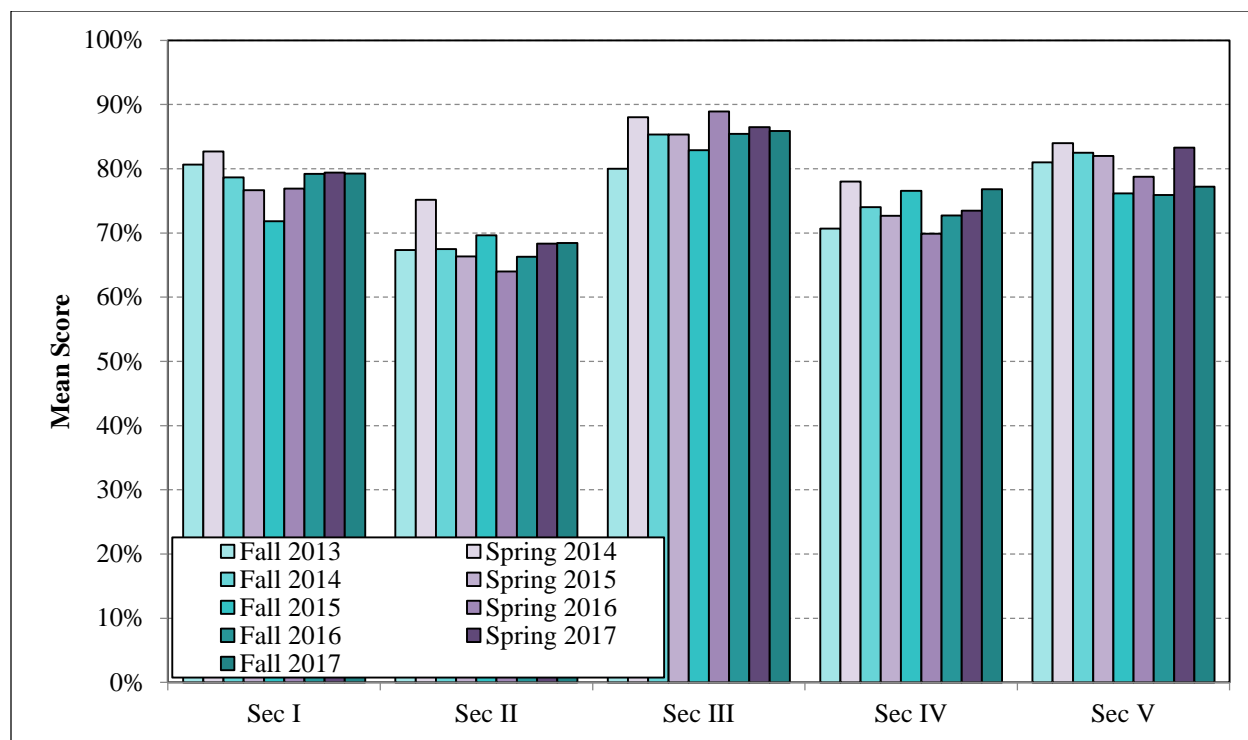


Figure 7. Comparison of mean scores (as percentage) for SPN 1120 through time from fall 2013 through fall 2017.

3.2 ENTRANCE SKILLS STUDY

In the spring 2016 term, a brief assessment was piloted in two sections of SPN 1121 on the Thomas Edison campus prior to entering into any engaged study in the course. The purpose of the assessment was to assess student skills and retention of materials from SPN 1120 prior to beginning SPN 1121. The assessment consists of a 15-minute reading comprehension quiz mirroring that which is seen in Section II of the SPN 1120 common final exam. The study compared study skill level based on the instructor they had for the previous course (SPN 1120) in an effort to align student skill level upon entry into SPN 1121. The pilot program for this study was first included in the fall 2015 assessment report. This program continues and was most recently administered at the beginning of spring 2018, before the writing of this report and is included here.

The assessment has now been administered in all traditional sections of SPN 1121 beginning with summer 2016 through spring 2018 on the Charlotte, Collier, and Thomas Edison campuses. Results of the cumulative study are shown in Figure 10.

In concept, upon entry to SPN 1121, all students should have at least a passing score (or nearly so) of the final exam from SPN 1120. The entrance skills study exhibits a range of mean scores across instructor that is diminished since previous years (Figure 10). Results exhibit achievement levels based on previous instructor spanning as low as 11.5/30 to as high as 22.2/30. This is a substantially decreased range from previous studies where the range was 7.2/30 to 25.3/30.

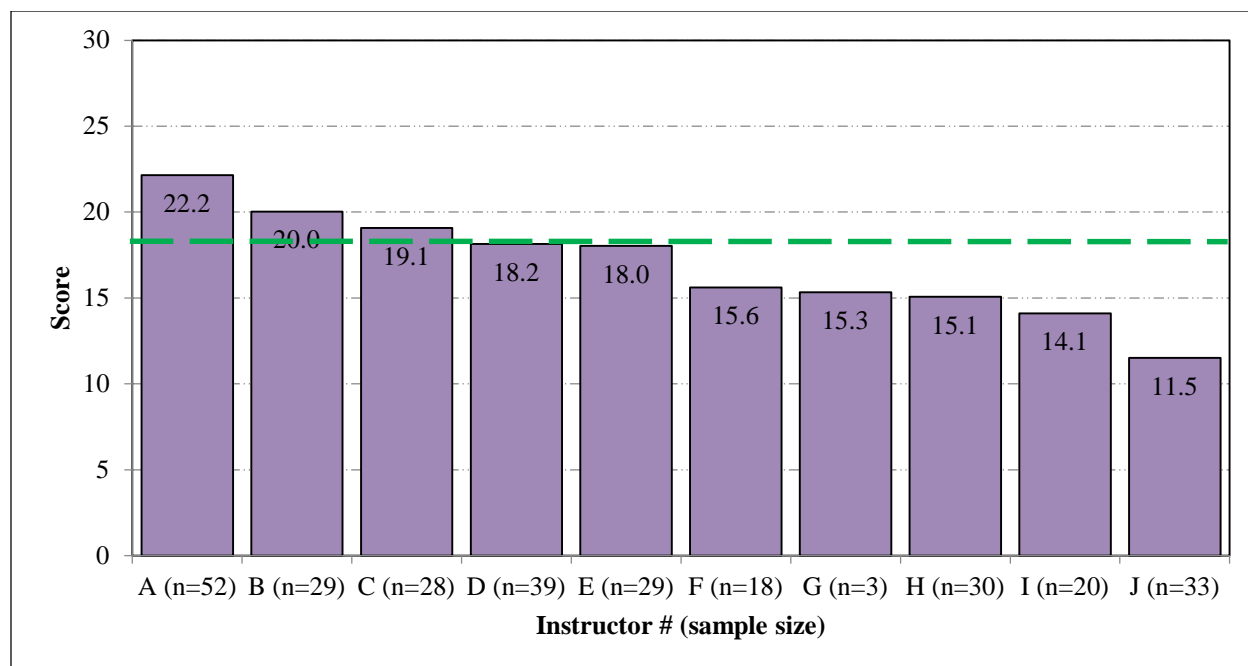


Figure 8. Comparison of achievement in entrance skills study assessment by instructor. Green dashed line denotes fall 2017 mean score for Section II of SPN 1120 (section of exam the entrance skills assessment is based).

3.3 SPN 1121

3.3.1 Descriptive Statistics & Learning Objectives

Using a common course assessment, the FSW Spanish faculty defined the same three areas of interest for evaluation that apply to SPN 1121 as those used for SPN 1120. For details on each SLO, see 3.1.1. The only difference between SPN 1121 and SPN 1120 in terms of measuring these outcomes is that the exam sections differ slightly and are noted in Table 7 below.

The faculty established measure of success for SLO 1, 80% of students scoring 70% or higher in Section I, was not met as results exhibit 67% of artifacts score 70% or higher in the oral competency exam section (Section I) (Table 7, Figure 11). The faculty established measure of success for SLO 2, 80% of students scoring 70% or higher in reading only sections, Sections II, and VI, was not met. Results exhibit 47% of artifacts scored 70% or higher in Section II and 49% of artifacts scored 70% or higher in Section VI. The faculty established measure of success for SLO 3, 80% of students scoring 70% or higher in writing only sections, Sections V and VII, was partially met. Results exhibit 53% of artifacts scored 70% or higher in Section V and 75% of artifacts scored 80% or higher in Section VII.

n = 45	Section I (Oral)	Section II (Reading)	Section III (Read/Write)	Section IV (Read/Write)	Section V (Writing)	Section VI (Reading)	Section VII (Writing)	Combined (Overall)
Goal	80% of artifacts scored \geq 70% for all sections							
% above Goal	67%	47%	64%	69%	53%	49%	80%	
Mean (as %)	71%	61%	68%	79%	67%	68%	79%	70%
Median (as %)	73%	67%	73%	87%	75%	67%	85%	74%
Section Score Max Possible	15	15	40	15	12	15	20	132
Section Mean	10.6	9.1	27.3	11.8	8.1	10.2	15.7	92.8
Section Median	11	10	29	13	9	10	17	97.5

Table 6. Percentage of student achievement level as per SLOs (SPN 1121).

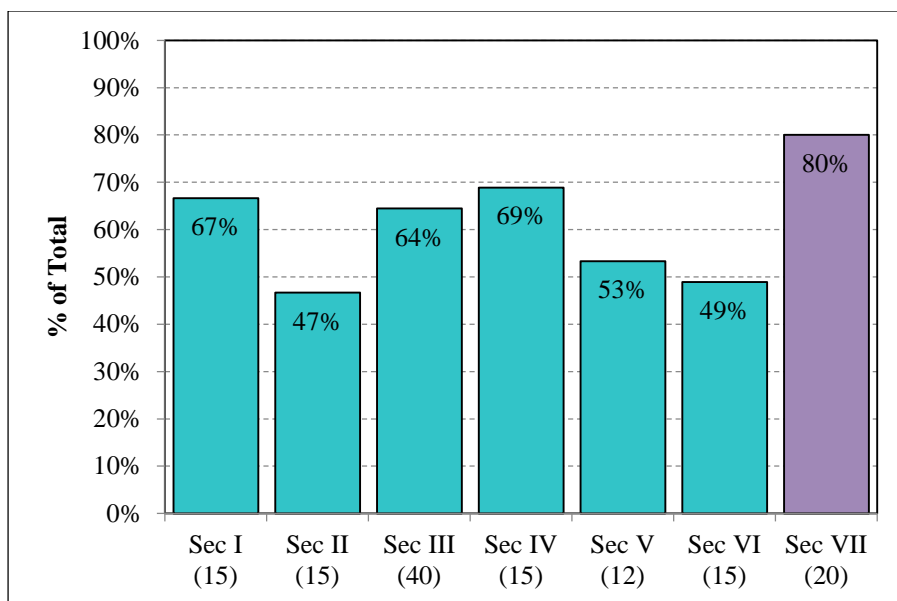


Figure 9. SLO achievement for SPN 1121 by exam section (Percentage of student achievement level as per SLOs). Purple denotes having met objective.

3.3.2 Exploratory Analysis & 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.

3.3.2.1 Dual Enrollment to Non-Dual Enrollment Comparison

No dual enrollment sections of the course were run during fall 2017 so no comparison study between dual enrollment and traditional courses could be completed.

3.3.2.2 Online to Traditional Comparison

During the fall 2017 semester, two online sections reported data. From those course sections, 25 total online artifacts were collected from SPN 1121 and 20 traditional artifacts were collected from SPN 1121. A comparison of basic statistics is provided in Table 7. Online artifacts mean scores are 12.0 higher 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 differences 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.

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 medium effect size. In other words, non-overlap score distribution from online artifacts to traditional artifacts is approximately 37%. For a graphical representation of this see Figure 10.

df = 43		
Online mean		75.6
Online standard deviation		17.55
Traditional mean		63.6
Traditional standard deviation		23.67
Effect size		0.58
p-value		0.066

Table 7. Comparison of mean scores (as %) for online and traditional artifacts. Positive effect sizes indicate a higher mean score for traditional artifacts.

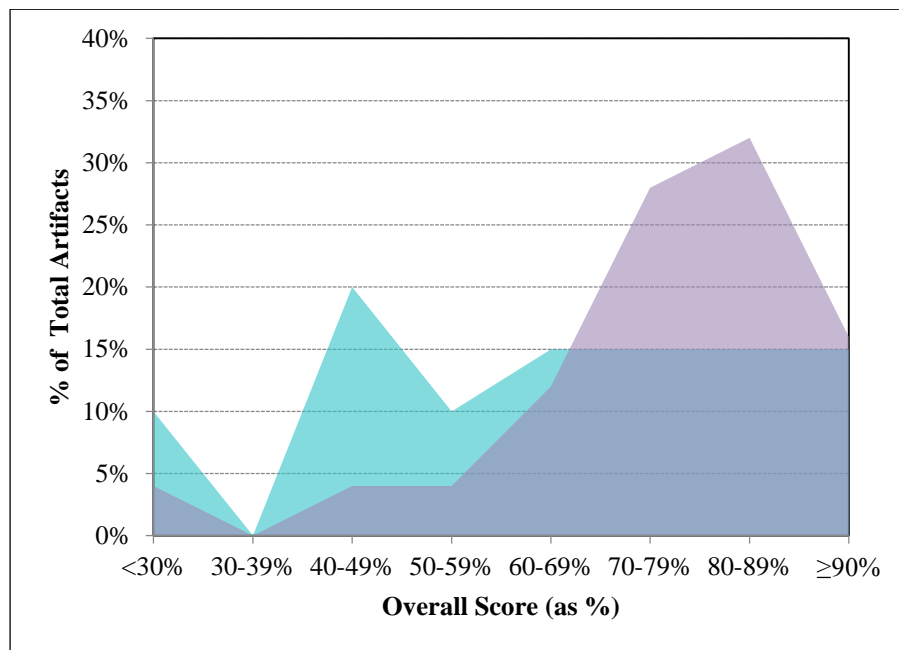


Figure 10. Score distribution for online (purple) and traditional (aqua) artifacts of SPN 1121.

3.3.2.3 Comparison by Campus/Site

Since the only two sites in which courses were offered was Thomas Edison (Lee) and FSW Online, results of this comparison are exhibited in 3.3.2.2 (see above).

3.3.3 Data Distribution & Longitudinal Study

3.3.3.1 Data Distribution

A histogram depicting the distribution of scores across each exam section is shown in Figure 11. Sections I, III, IV, V, VI, and VII exhibit scores centered on $\geq 90\%$. In contrast, Section II exhibits a platykurtic distribution (low peak) where data is distributed nearly universally across all scoring ranges. To describe the behavior of the section scores based on overall achievement, a color map, or binary raster image, is typically created. However, due to limited sample size, this analysis was not completed.

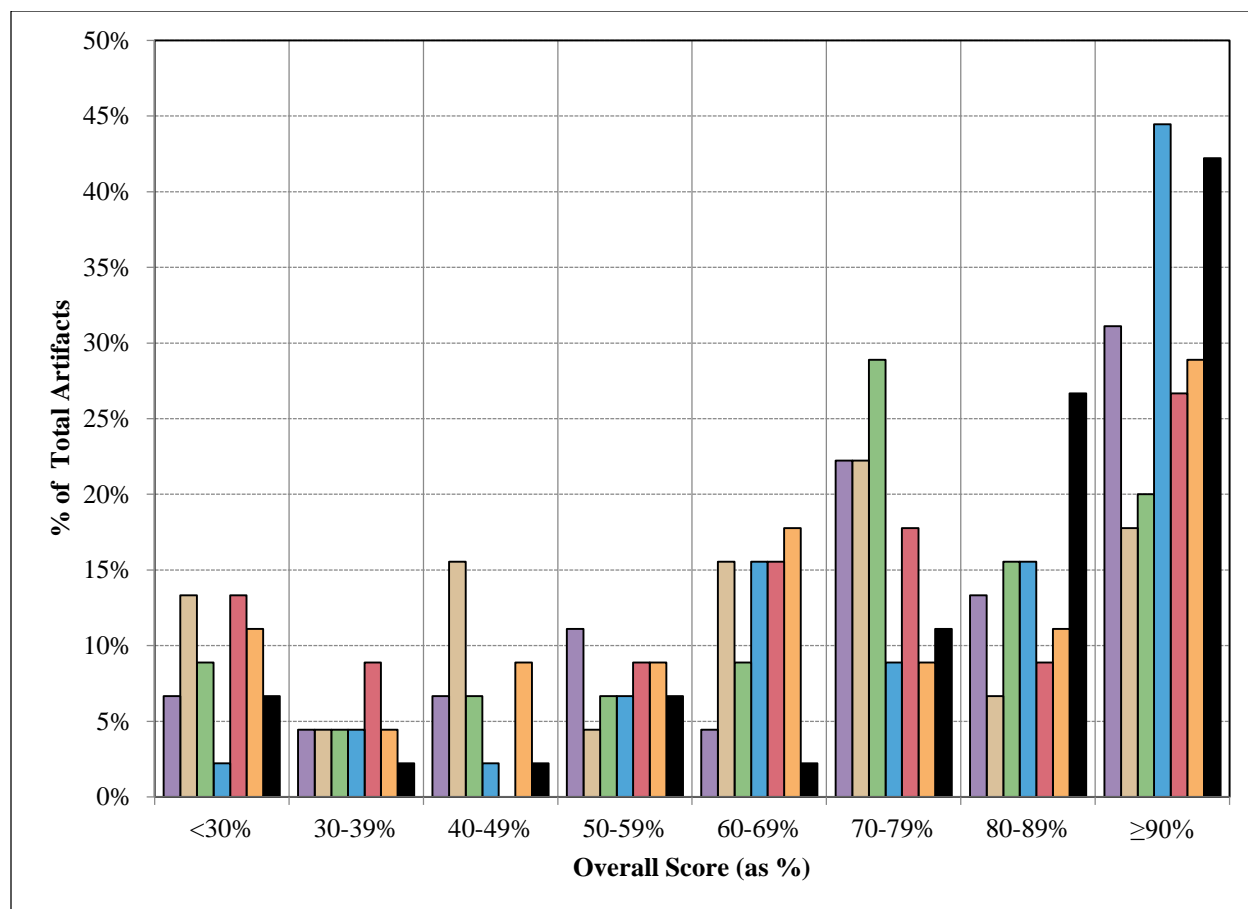


Figure 11. Histogram of SPN 1121 exam sections scores for fall 2017. Purple – Section I, Brown – Section II, Green – Section III, Blue – Section IV, Red – Section V, Orange – Section VI, and Black – Section VII.

3.3.3.2 Longitudinal Study

Further description of achievement over time in SPN 1121 is provided in Table 8 and Figure 14). Both demographics of students and student count vary by semester. It may be more reasonable to compare like semesters (Fall vs. Fall, Spring vs. Spring). (see <http://www.fsw.edu/facultystaff/assessment/history> for further details). Through time, Section I remains the most consistent (Figures 14). Because some exam sections have different maximum scores (15, 20, and 60), to see which of the five sections of the exam exhibits the strongest achievement it may be best to relate them in terms of percent. There is no particular section that stands out particularly high or low compared with others. Sections II, III, IV, V, VI, and VII exhibit high variability over time.

	Section Max	Fall 2013 n=10	Sp 2014 n=115	Fall 2014 n=25	Sp 2015 n=58	Fall 2015 n=17	Sp 2016 n=109	Fall 2016 n=42	Sp 2017 n=140	Fall 2017 n=45
Section I (Oral)	15	11.5	12.3	11.9	12.2	11.5	10.7	11.5	11.8	10.6
Section II (Reading)	15	9.5	9.6	10.7	10.6	10.6	9.5	9.8	8.6	9.1
Section III (Read/Write)	40	34.2	32.3	30.0	31.1	29.9	30.8	25.9	29.2	27.3
Section IV (Read/Write)	15	9.5	11.4	10.6	11.4	11.3	10.5	10.7	10.3	11.8
Section V (Writing)	12	7.5	5.7	9.5	8.5	8.1	8.3	7.2	7.9	8.1
Section VI (Reading)	15	9.6	10.3	11.6	10.7	9.9	9.0	9.7	8.7	10.2
Section VII (Writing)	20	14.2	15.4	16.1	16.4	16.4	14.6	15.6	15.1	15.7
Combined (Overall)	132	96.0	97.0	100.5	100.9	97.7	93.5	90.3	91.6	92.8

Table 8. Comparison of mean scores for SPN 1121 for fall 2013 through fall 2017.

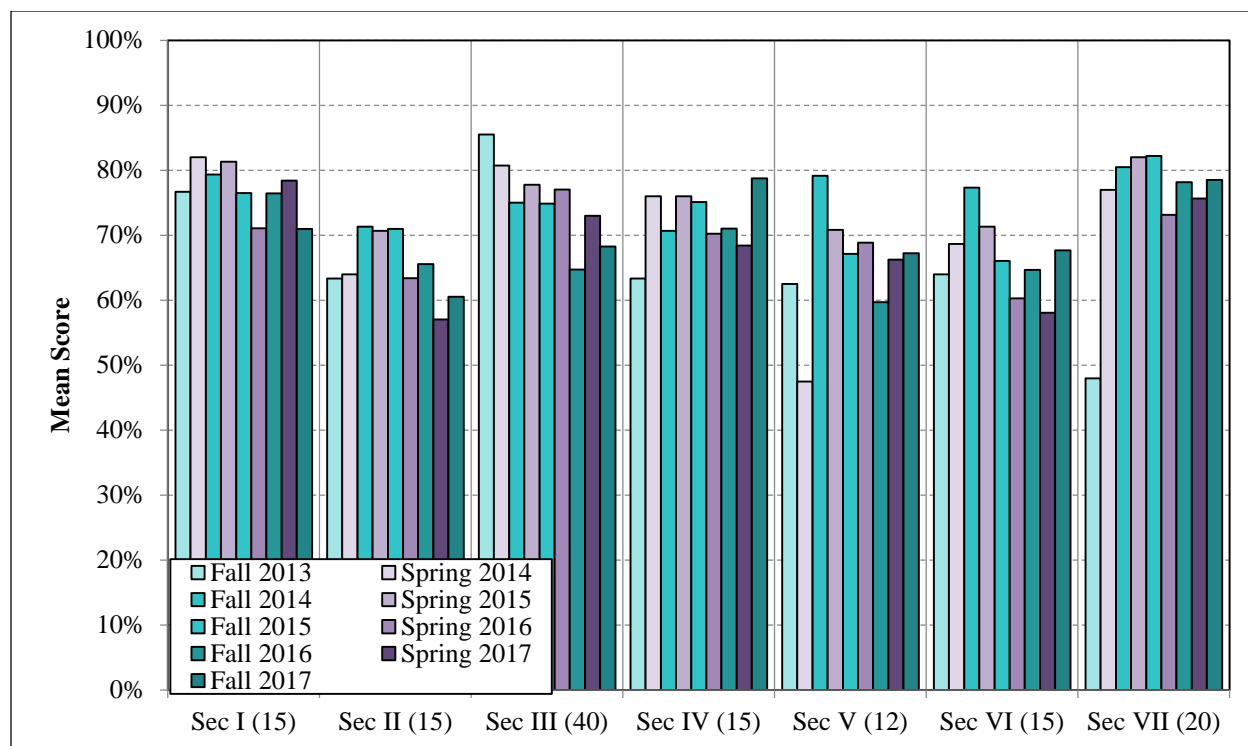


Figure 12. Comparison of mean scores (as percentage) for SPN 1121 through time from fall 2013 through fall 2017.

4 CONCLUSIONS

Florida SouthWestern’s Foreign Language Department employs a common course assessment in both French and Spanish courses to measure student progress in course level objectives in an effort to improve instruction. What follows is a drilldown of findings for both disciplines (French and Spanish) for the fall 2017 assessment.

4.1 FRENCH

The lead professor (and sole full-time faculty member) of the French Department departed Florida SouthWestern State College at the end of AY 2015-16. The new incoming professor elected to start fresh with a new assessment tool. The AY 2016-17 and AY 2017-2018 is currently being used to develop and/or pilot a new tool for implementation in the fall 2018 term. As a result, no analyses for AY 2017-18 are included herein.

4.2 SPANISH

A drill-down of SPN 1120 results are as follows:

1. Achievement of 80% of artifacts scoring 70% or better (SLO 1): Achievement was nearly met as results exhibit 75% of artifacts score 70% or higher in the oral competency exam section (Section I).
2. Achievement of 80% of artifacts scoring 70% or better (SLO 2): Achievement was partially met. Results exhibit 54% of artifacts scored 70% or higher in Section II and 87% of artifacts scored 70% or higher in Section III.

3. Achievement of 80% of artifacts scoring 70% or better (SLO 3): Achievement was partially met. Results exhibit 77% of artifacts scored 70% or higher in Section IV and 77% of artifacts scored 70% or higher in Section V.
4. No comparison of dual enrollment to traditional artifacts was completed because no dual enrollment sections were offered during fall 2017.
5. In a comparison of online to traditional artifacts, online artifacts score 3.3 points lower than traditional. Results were not statistically significantly different.
6. In a cross-campus comparison, Collier campus exhibits higher scores in Sections I, III, IV, and V of the exam. Thomas Edison scores highest in Section II. The Charlotte campus scores the lowest in three of five sections.
7. In a study of score distribution by section, all sections exhibit peaks above 90% with the distribution trailing down with decreasing score. This is a change from the past, where Section II, exhibited a peak at 80-89% or lower. Section II still exhibits more widely distributed scores, with a substantially smaller peak above 90% than the other sections.
8. In a study of section score distribution based on overall score, Section II is consistently the lowest performing compared to other sections between the ranges of 65-94%. For example, in the 75-79% range, the mean score for Section II is 62%, while the other four sections range from 78-87%. Additionally, Section III is over performing at the lowest overall scores. At the 50-54% range, the Section III mean score is 75%, whereas other sections range from 40%-56%.
9. In a longitudinal study of data distribution through time, Section III consistently exhibits the highest mean scores over time ranging from 80% to 89%. Section II is consistently the lowest over time ranging from 64% to 75%.
10. In a study assessing student skills and retention of materials from SPN 1120 prior to beginning SPN 1121, results exhibit achievement levels based on previous instructor spanning as low as 11.5/30 to as high as 22.2/30. This is a substantially decreased range from previous studies where the range was 7.2/30 to 25.3/30.

A drill-down of SPN 1121 results are as follows:

1. Achievement of 80% of artifacts scoring 70% or better (SLO 1): Achievement was not met as results exhibit 67% of artifacts score 70% or higher in the oral competency exam section (Section I).
2. Achievement of 80% of artifacts scoring 70% or better (SLO 2): Achievement was not met. Results exhibit 47% of artifacts scored 70% or higher in Section II and 49% of artifacts scored 70% or higher in Section VI.
3. Achievement of 80% of artifacts scoring 70% or better (SLO 3): Achievement was not met. Results exhibit 53% of artifacts scored 70% or higher in Section V and 75% of artifacts scored 70% or higher in Section VII.
4. No comparison of dual enrollment to traditional artifacts was completed because no dual enrollment sections were offered during fall 2017.
5. In a comparison of online to traditional artifacts, online artifacts score 12.0 higher than traditional. Results were not statistically significantly different.
6. No cross-campus comparison was completed because only two sites offered course sections (FSW Online and Thomas Edison, a traditional site). The results of that comparison are shown in item #5 above.
7. In a study of score distribution by section, Sections I, III, IV, V, VI, and VII exhibit scores centered on $\geq 90\%$. In contrast, Section II exhibits a platykurtic distribution (low peak) where data is distributed nearly universally across all scoring ranges.
8. No study of score distribution based on overall score was completed due to limited sample size.

9. In a longitudinal study of data distribution through time, there is no particular section that stands out particularly high or low compared with others. Sections II, III, IV, V, VI, and VII exhibit high variability over time.

5 REFERENCES

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