Foreign Language Assessment Report

Spring 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 Academic Affairs Assessment, Academic Affairs (jfvangaalen@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 is currently being used to develop and/or pilot a new tool for implementation in the fall 2017 term. As a result, no analyses for AY 2016-17 are included herein.

3 SPANISH

During the spring 2017 semester eight sections of SPN 1120 Beginning Spanish I were offered. Of those, artifacts from a common final were collected from six sections. Two course sections did not report data. Sections were taught by four different instructors, three of which were represented in the artifacts collected. A total of 183 students were enrolled in SPN 1120. Of those, 89 artifacts were collected representing a sample size of 49% of the population. Ten sections of SPN 1121 Beginning Spanish II were offered in spring 2017. Of those, artifacts were collected from a common final from all 10 sections. Sections were taught by five different instructors which were represented in the artifacts collected. A total of 204 students were enrolled in SPN 1121. Of those, 160 artifacts were collected representing a sample size of 78%.

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 78% 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 55% of artifacts scored 70% or higher in Section II and 84% 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 58% of artifacts scored 70% or higher in Section IV and 90% of artifacts scored 70% or higher in Section V. For a graphical representation of SLO achievement, see Figure 1.

n = 89	Section I (Oral)	Section II (Reading)	Section III (Reading)	Section IV (Written)	Section V (Written)	Combined (Overall)
Goal	*80% of artifacts scored ≥70% for all sections*					
% above 70%	**78%**	**55%**	**84%**	**58%**	**90%**	
Mean (as %)	79%	68%	86%	73%	83%	75%
Median (as %)	87%	72%	93%	73%	85%	80%
Section Score Max	15	60	15	15	20	125
Section Mean	11.9	41.0	13.0	11.0	16.7	93.6
Section Median	13	43	14	11	17	100

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

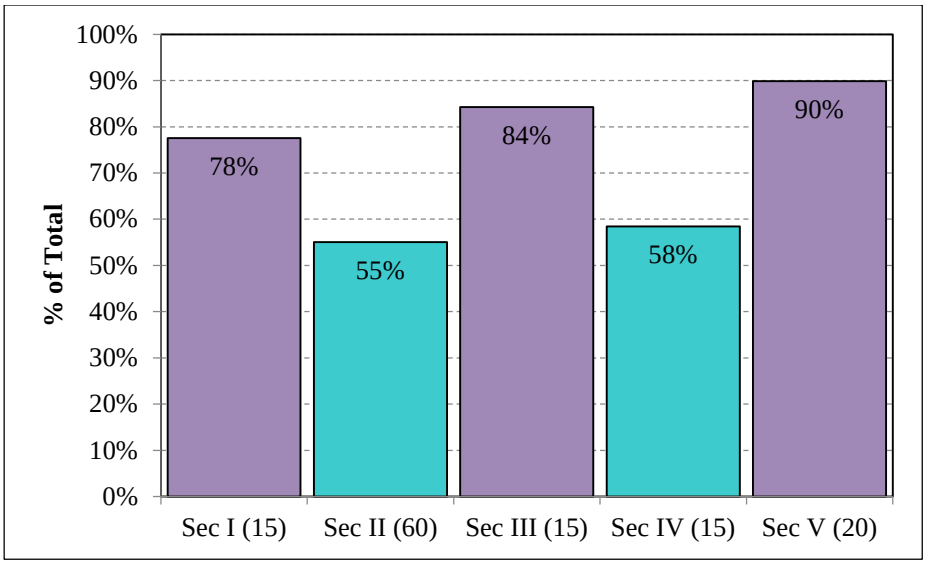

Figure 1. SLO achievement for SPN 1120 by exam section (Percentage of student achievement level as per SLOs). Purple denotes having met objective.

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 spring 2017 so no comparison study between dual enrollment and traditional courses could be completed.

3.1.2.2 Online to Traditional Comparison

During the spring 2017 semester, two online sections reported data. From those course sections, 18 total online artifacts were collected from SPN 1120 and 71 traditional artifacts were collected from SPN 1120. A comparison of basic statistics is provided in Table 2. Online artifacts mean scores are 3.9 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 11%. For a graphical representation of this see Figure 2.

df = 87	
Online mean	71.7
Online standard deviation	19.37
Traditional mean	75.6
Traditional standard deviation	19.26
Effect size	0.16
p-value	0.452

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

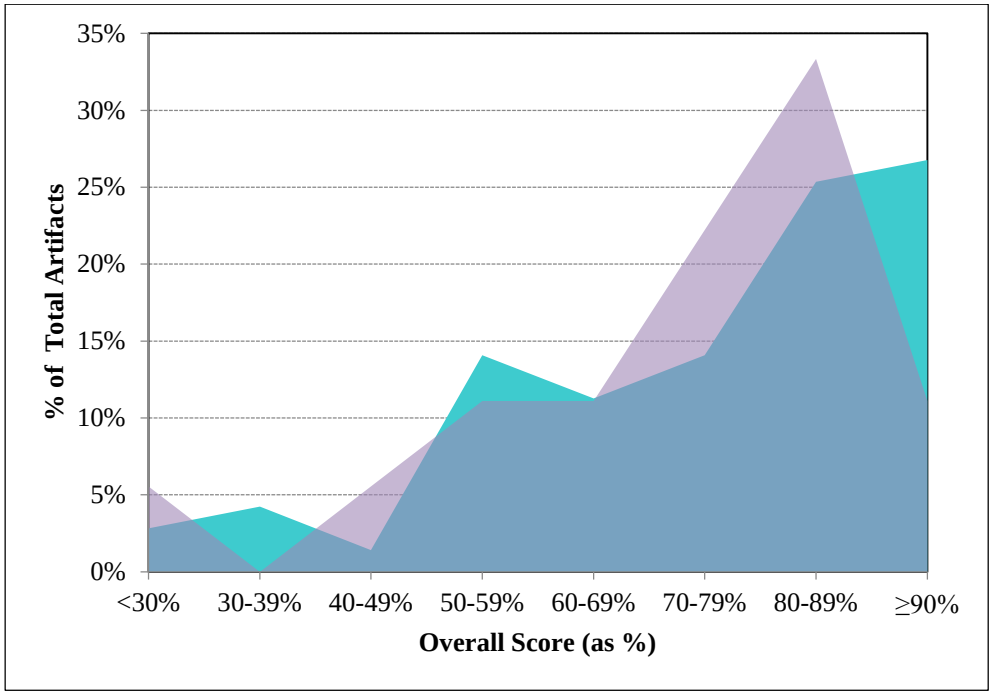

Figure 2. Score distribution for online (purple) and traditional (aqua) artifacts of SPN 1120.

3.1.2.3 Comparison by Campus/Site

Only two sites offered sections of SPN 1120 during spring 2017, one of which was FSW Online. As a result, comparison by site is encompassed exclusively in section 3.1.2.2 Online to Traditional Comparison.

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 3. Sections I, III, and V exhibit peaks above 90% with the distribution trailing down with decreasing score. Section II, however, exhibit more widely distributed scores. Section II exhibits greater than 10% of artifacts scoring in each bin from 40-49% up through ≥ 90%. Also, Section IV exhibits a bimodal (dual peak) distribution centered on both ≥ 90% and 60-69%.

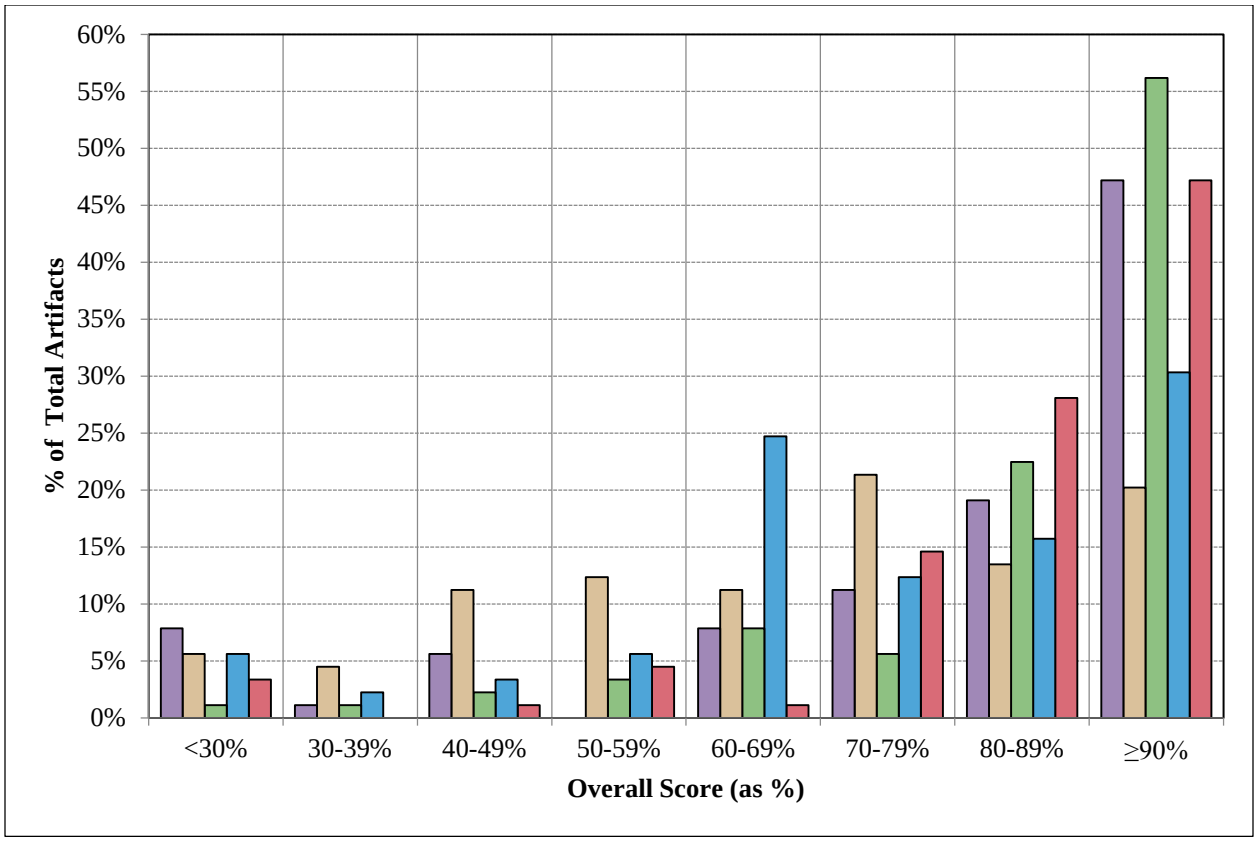

Figure 3. Histogram of SPN 1120 exam sections scores for spring 2016. Purple – Section I, Brown – Section II, Green – Section III, Blue – Section IV, and Red – Section V.

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 4). 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 4 shows that Section II is consistently the lowest performing compared to other sections between the ranges of 65-84%. For example, in the 70-74% range, the mean score for Section II is 55%, while the other four sections range from 66-81%. Additionally, Section III and Section V are over performing at the lowest overall scores. At the 60-64% range, the Section III mean score is 88%, and Section V is 80%, whereas other sections range from 42%-59%.

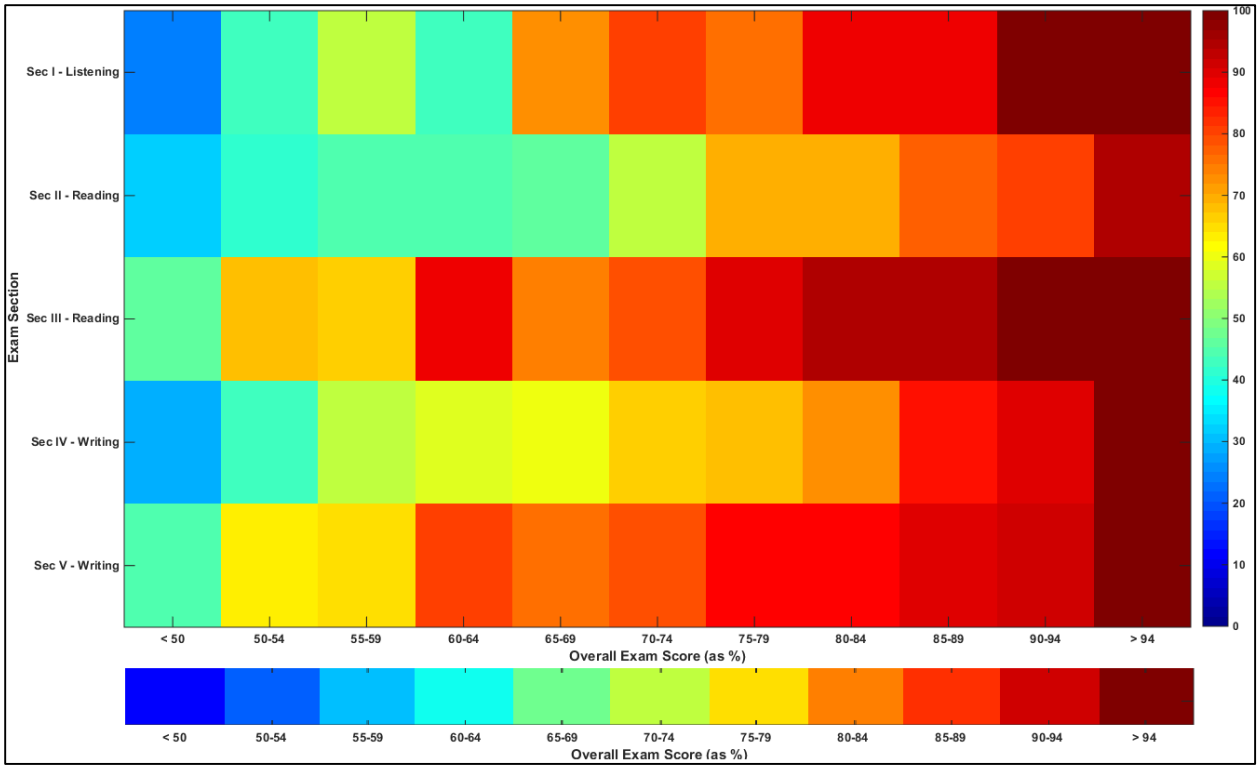

Figure 4. (Top) Colormap of mean scores for each exam section based on overall scoring bin for SPN 1120. (Bottom) Comparison exam section if section score percentage is the same as overall (i.e. artifact score is equally distributed across all sections). An exam section with hotter colors (reds/yellows) compared with the bottom bar means that section achievement exceeds the overall score and is an area of strength. An exam section with colder colors (blues/greens) compared with the bottom bar means that section achievement is lower than the overall score and is therefore an area of weakness.

3.1.3.2 Longitudinal Study

Further description of achievement over time in SPN 1120 is provided in Table 3 and Figure 5. 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**
Section I (Oral)	*15*	12.1	12.4	11.8	11.5	10.8	11.5	11.9	11.9
Section II (Reading)	*60*	40.4	45.1	40.5	39.8	41.8	38.4	39.8	41.0
Section III (Reading)	*15*	12.0	13.2	12.8	12.8	12.4	13.3	12.8	13.0
Section IV (Written)	*15*	10.6	11.7	11.1	10.9	11.5	10.5	10.9	11.0
Section V (Written)	*20*	16.2	16.8	16.5	16.4	15.2	15.7	15.2	16.7
Combined (Overall)	***125***	**91.3**	**99.2**	**92.8**	**91.4**	**91.6**	**89.5**	**90.6**	**93.6**

Table 3. Comparison of mean scores for SPN 1120 for fall 2013 through spring 2017.

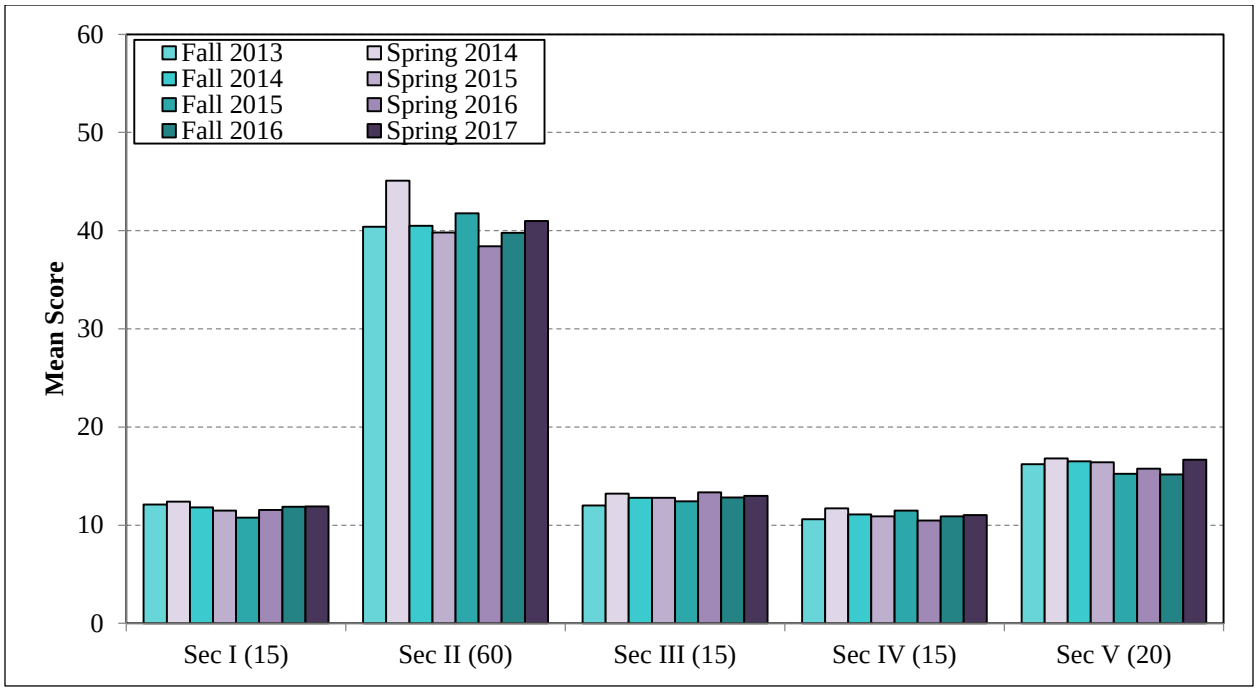

Figure 5. Comparison of mean scores for SPN 1120 through time from fall 2013 through spring 2017.

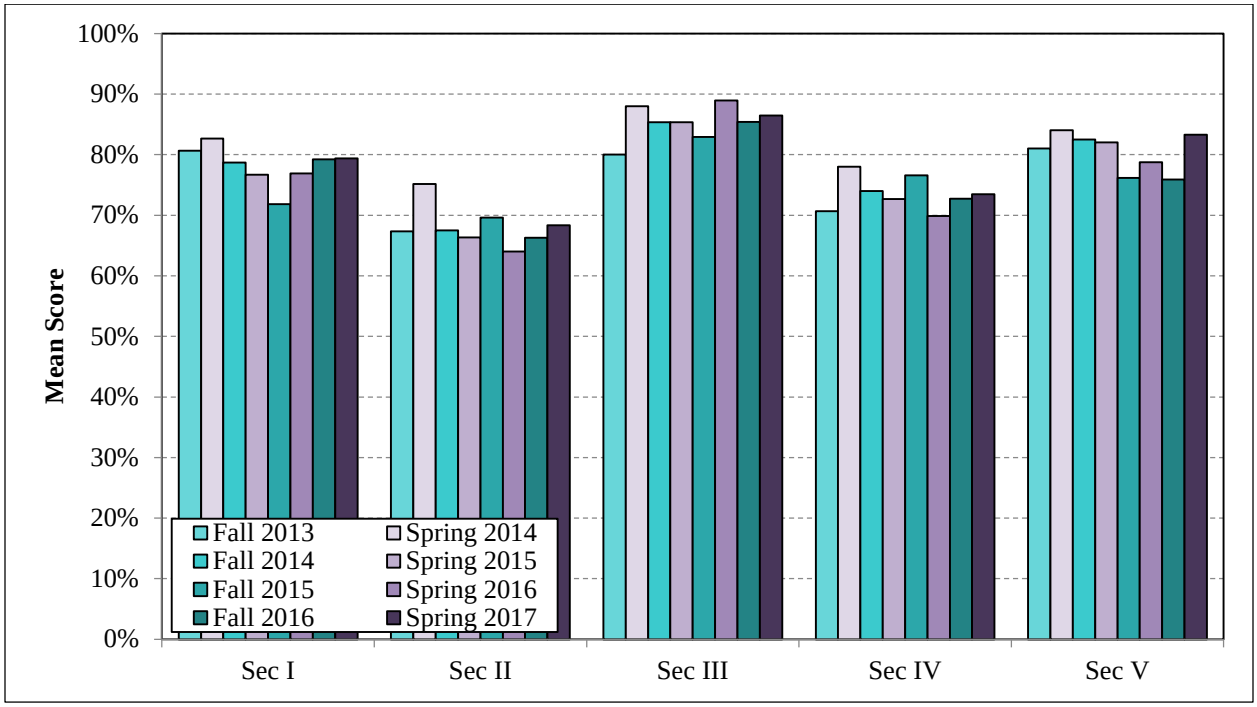

Figure 6. Comparison of mean scores (as percentage) for SPN 1120 through time from fall 2013 through spring 2017.

If we compare colormaps from four previous terms (spring 2015, fall 2015, spring 2016, and fall 2016) with spring 2017 the consistency of sections can be reviewed over time (Figure 7). Section II is consistently the lowest performing compared to other sections between the ranges of 60-84% in the last five terms. Additionally, section III is consistently the strongest performing exam section.

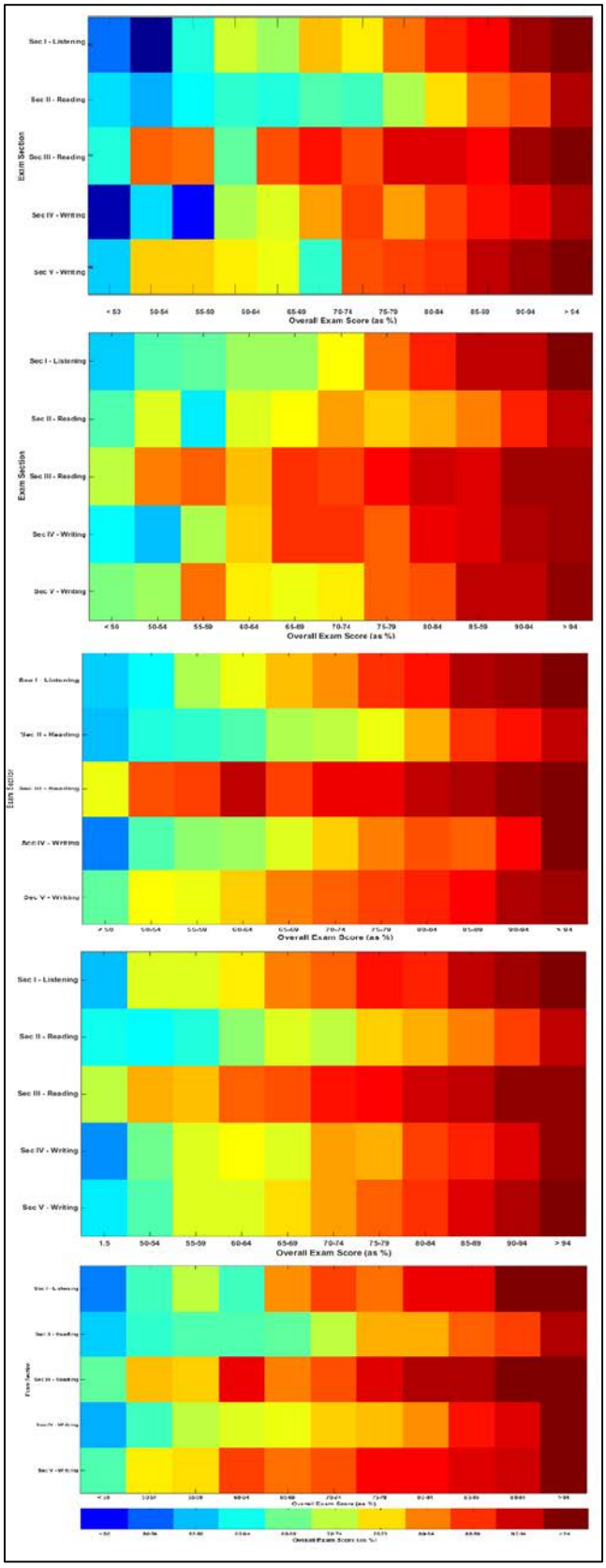

Figure 7. Comparison of spring 2015 (top), fall 2015, spring 2016, fall 2016, and spring 2017 (bottom) colormaps of SPN 1120.

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 summer 2017, 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 summer 2017 on the Charlotte, Collier, and Thomas Edison campuses. Results of the cumulative study are shown in Figure 8.

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 wide range of mean scores across instructor (Figure 8). Results exhibit achievement levels based on previous instructor spanning as low as 7.2/30 to as high as 25.3/30. Notably, five instructors inhabit a similar range (#2 through #6) which ranges just 3.0/30 points. Above that group of five is the highest score, 4.1/30 higher than #2. Below that group #6 is 3.1/30 lower, followed by 7.1/30, and down from that.

One attribute to consider is the relationship of the mean scores displayed here by instructor in relation to the mean score for Section II of SPN 1120 (section of exam the entrance skills assessment is based) denoted by the green dashed line. If we look at the results based on the three instructor groups mentioned above (Group 1: Instructor #1, Group 2: Instructors 2-6, and Group 3: Instructors 7-12) we can see that success varies greatly (Table 4).

	Mean	**% Above Exam Average** **(green dotted line in Fig. 8)**
Group 1	25.3	86%
Group 2	19.5	44%
Group 3	12.3	11%

Table 4. table

Note that while in some cases a limited sample size may be related to low mean scores (Instructor 9 & 10), this is not always the case. Students from Instructor #8 exhibit a mean score of 11.1/30 with a sample size of n=31.

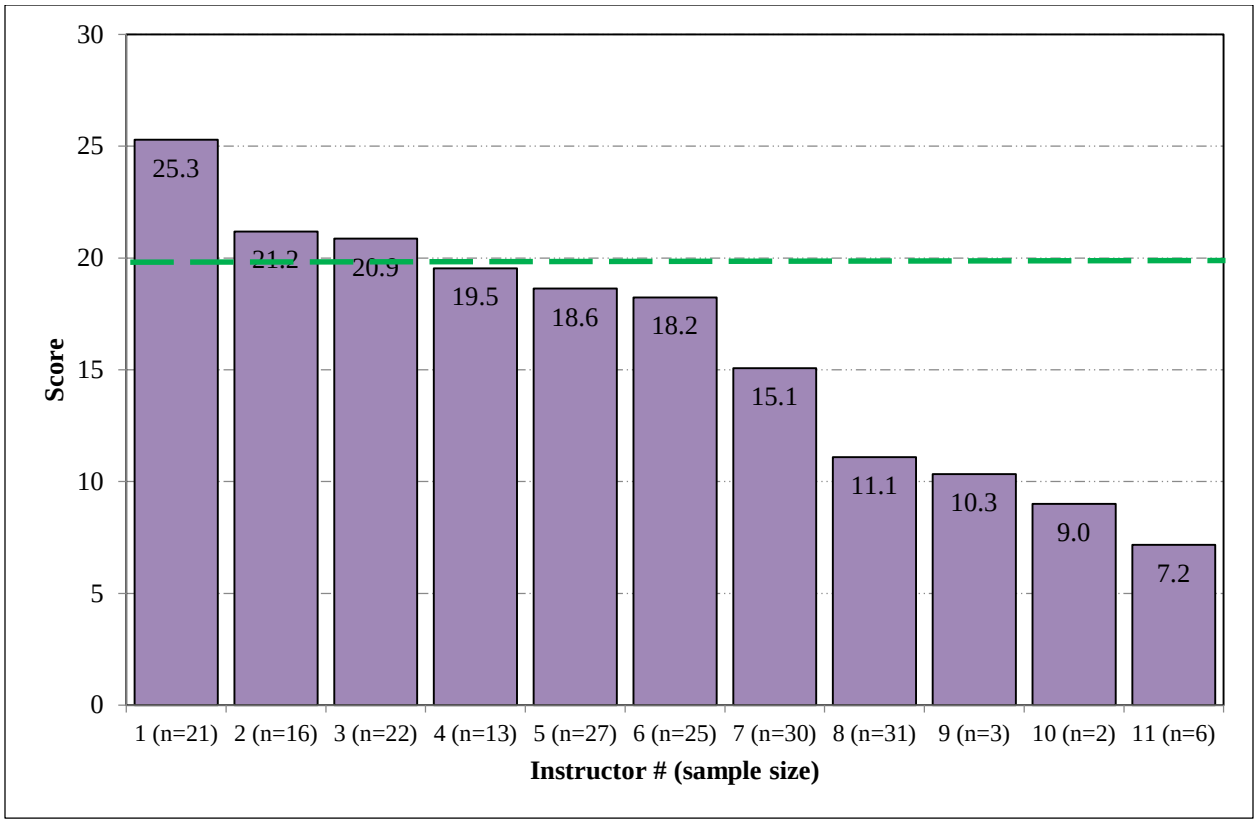

Figure 8. Comparison of achievement in entrance skills study assessment by instructor. Note that instructor numbers have been shuffled since the most recent report to protect instructor identity. Green dashed line denotes fall 2016 mean score for Section II of SPN 1120 (section of exam the entrance skills 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 5 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 73% of artifacts score 70% or higher in the oral competency exam section (Section I) (Table 5, Figure 9). 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 38% of artifacts scored 70% or higher in Section II and 43% 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 not met. Results exhibit 55% of artifacts scored 70% or higher in Section V and 75% of artifacts scored 70% or higher in Section VII.

n = 160	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 ≥70% for all sections*							
% above Goal	73%	38%	69%	59%	55%	43%	75%	
Mean (as %)	78%	57%	73%	68%	66%	58%	76%	69%
Median (as %)	80%	60%	78%	74%	75%	63%	80%	71%
Section Score Max Possible	*15*	*15*	*40*	*15*	*12*	*15*	*20*	*132*
Section Mean	11.8	8.6	29.2	10.3	7.9	8.7	15.1	91.6
Section Median	12	9	31	11	9	9.5	16	93.2

Table 5. Percentage of student achievement level as per SLOs (SPN 1121).

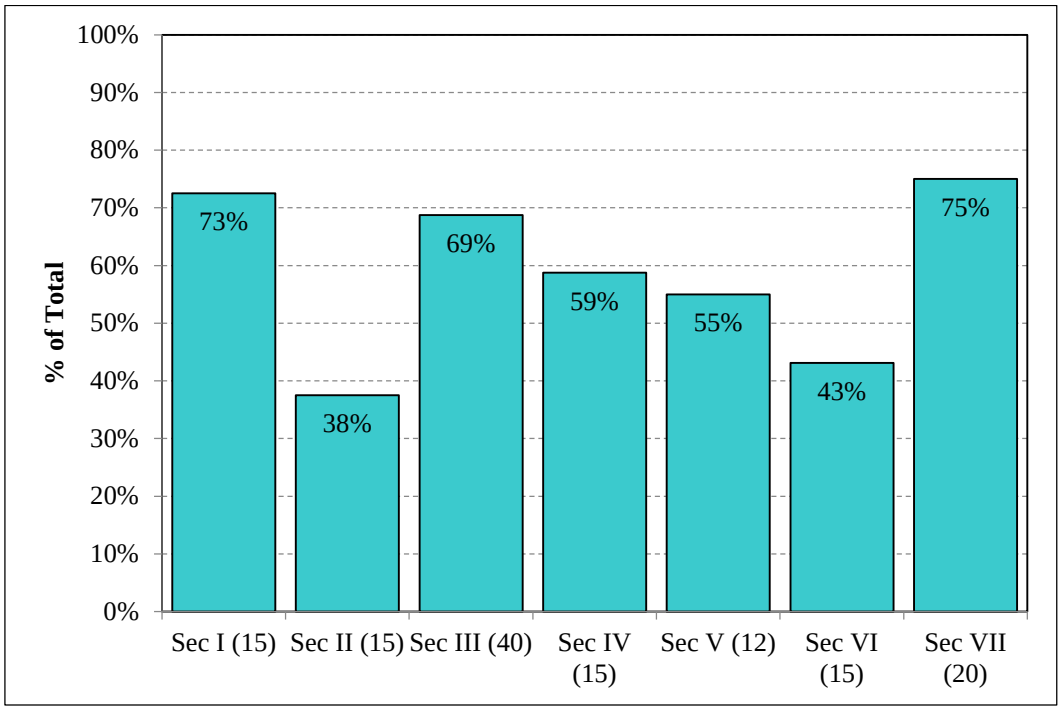

Figure 9. SLO achievement for SPN 1121 by exam section (Percentage of student achievement level as per SLOs). Purple denotes having met objective.

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 spring 2017 so no comparison study between dual enrollment and traditional courses could be completed.

3.3.2.2 Online to Traditional Comparison

During the spring 2017 semester, three online sections reported data. From those course sections, 40 total online artifacts were collected from SPN 1121 and 120 traditional artifacts were collected from SPN 1121. A comparison of basic statistics is provided in Table 6. Online artifacts mean scores are 0.7 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 small effect size. In other words, non-overlap score distribution from online artifacts to traditional artifacts is approximately 3%. For a graphical representation of this see Figure 10.

df = 179	
Online mean	70.2
Online standard deviation	17.16
Traditional mean	69.5
Traditional standard deviation	18.11
Effect size	-0.04
p-value	0.797

Table 6. 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

Of the 160 artifacts collected from SPN 1121, 36 originated from the Charlotte campus, 23 from the Collier campus, 40 from FSW Online, and 61 from the Thomas Edison (Lee) campus. Scores by exam section varied greatly across campuses. A comparison of mean scores by exam section is provided in Table 3.

	Section I	Section II	Section III	Section IV	Section V	Section VI	Section VII	Combined Score
Rubric Max	*15*	*15*	*40*	*15*	*12*	*15*	*20*	*132*
Charlotte	10.8	6.0	30.8	8.6	4.7	5.0	12.8	78.7
Collier	**13.6**	**10.9**	**33.4**	**12.4**	**11.2**	**10.2**	**18.0**	**109.6**
FSW Online	12.0	8.3	27.2	10.7	7.9	10.2	14.9	91.2
Thomas Edison (Lee)	11.5	9.4	28.0	10.1	8.7	9.4	15.6	92.7

Table 7. Comparison of mean scores by site for SPN 1121. Bold denotes highest mean score in that dimension among all sites.

Collier campus exhibits higher scores in all sections of the exam. FSW Online exhibits the second highest scores across 4 of 7 sections. Thomas Edison exhibits the second highest scores across 3 of 7 sections. The Charlotte campus consistently exhibits the lowest scoring on all exam sections.

A plot comparing descriptive statistics of the combined (overall) scores by site is presented in Figure 12. Collier and FSW Online exhibit peaks centered on 80-89%. The Thomas Edison campus exhibits a peak centered on 60-69%. Charlotte exhibits a peak in score distribution centered on 50-59%.

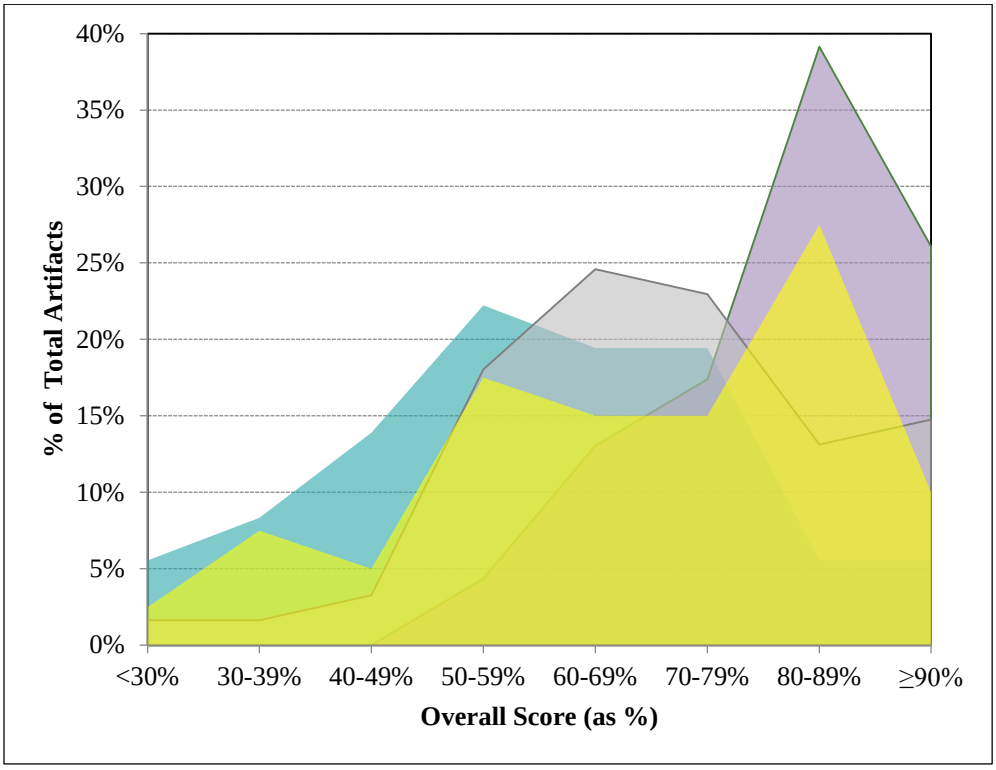

Figure 11. Comparison of artifact score distribution for Charlotte in aqua, Collier in purple, Thomas Edison in gray, and FSW Online in yellow.

A one-way analysis of variance was used to compare means of the combined exam section scores at each site. Results of the ANOVA exhibit a statistically significant difference between sites (see Table 8). 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	13,5056	3	4502.1	8.91	$1.75x10^{-5}$	2.66
Within Sites	78,847	156	505.4			
Total	92,354	159				

Table 8. Results of one-way ANOVA of combined rubric scores at each site for SPN 1121.

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 13. Sections I, III, IV, V, and VII exhibit scores centered on ≥90%. In contrast, both Sections II and VI exhibit bimodal (two-peak) distributions centered on <30% and 80-89%.

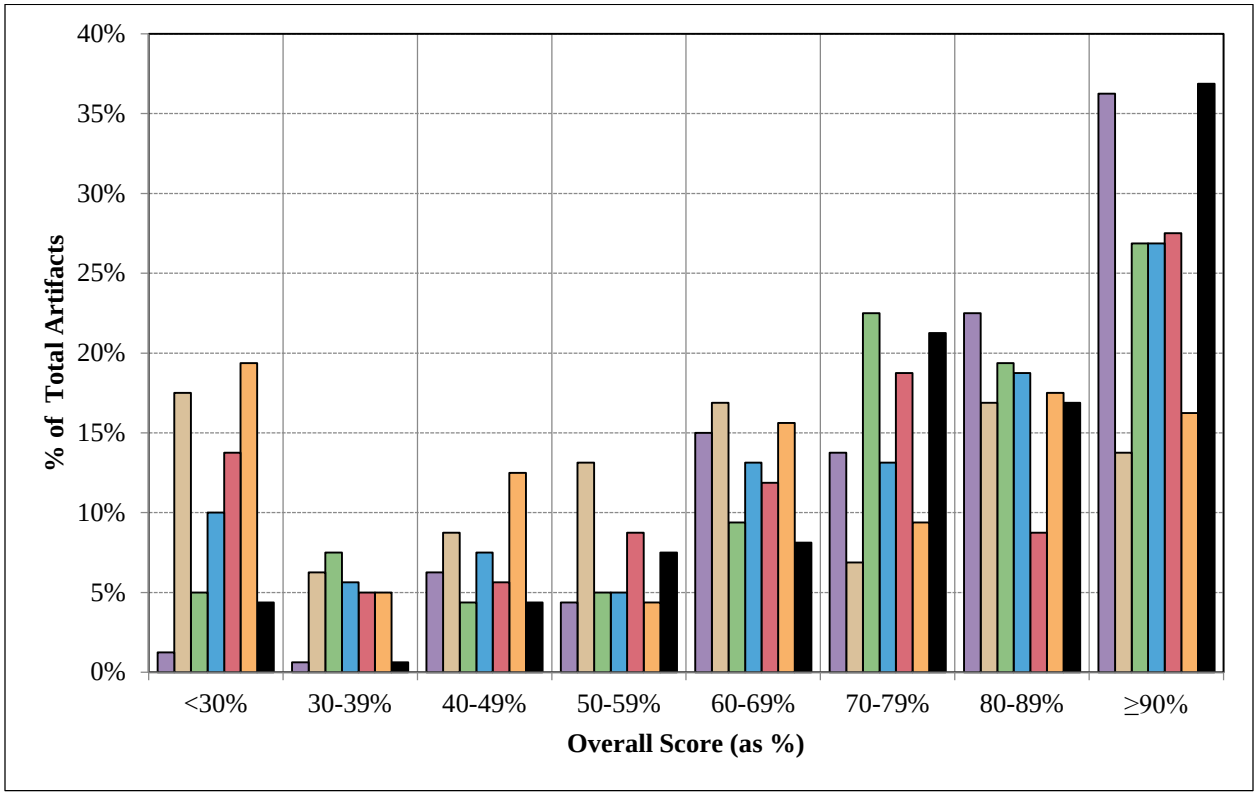

Figure 12. Histogram of SPN 1121 exam sections scores for spring 2017. Purple – Section I, Brown – Section II, Green – Section III, Blue – Section IV, Red – Section V, Orange – Section VI, and Black – Section VII.

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 13). 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 13 shows that Sections II and VI are consistently the lowest performing compared to other sections between the ranges of 60-84%. For example, in the 65-69% overall score range, the mean score for Sections II and VI are 59% and 48%, respectively. In comparison, the other five sections range from 70-79%. Additionally, Section I, III, and VII are over performing at the

lowest overall scores. At the 55-59% overall score range, these sections mean scores range from 63-69%, respectively. By comparison, other sections range from 39%-55%.

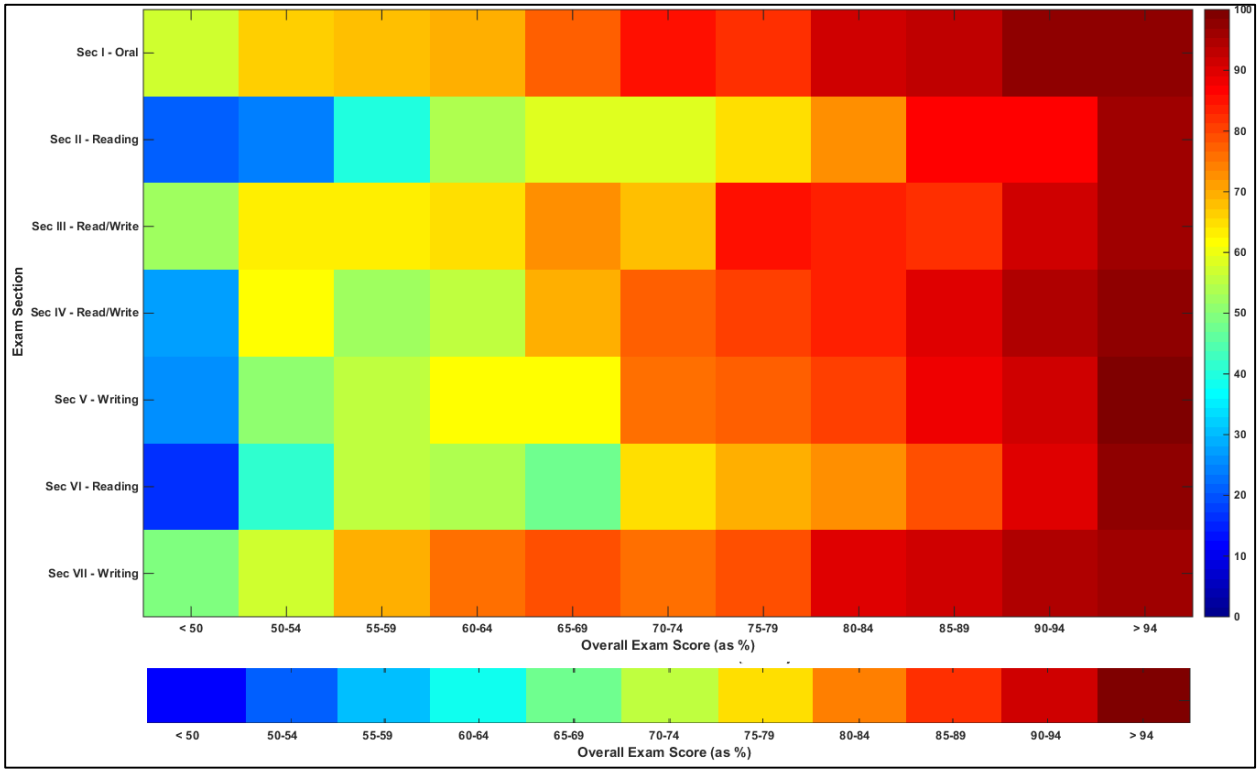

Figure 13. (Top) Colormap of mean scores for each exam section based on overall scoring bin for SPN 1121. (Bottom) Comparison exam section if section score percentage is the same as overall (i.e. artifact score is equally distributed across all sections). An exam section with hotter colors (reds/yellows) compared with the bottom bar means that section achievement exceeds the overall score and is an area of strength. An exam section with colder colors (blues/greens) compared with the bottom bar means that section achievement is lower than the overall score and is therefore an area of weakness.

3.3.3.2 Longitudinal Study

Further description of achievement over time in SPN 1121 is provided in Table 9 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 (Figure 15. There is no particular section that stands out particularly high or low compared with others. with a range of only 0.4 in the last four fall terms. Sections II, 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**
Section I (Oral)	*15*	11.5	12.3	11.9	12.2	11.5	10.7	11.5	11.8
Section II (Reading)	*15*	9.5	9.6	10.7	10.6	10.6	9.5	9.8	8.6
Section III (Read/Write)	*40*	34.2	32.3	30.0	31.1	29.9	30.8	25.9	29.2
Section IV (Read/Write)	*15*	9.5	11.4	10.6	11.4	11.3	10.5	10.7	10.3
Section V (Writing)	*12*	7.5	5.7	9.5	8.5	8.1	8.3	7.2	7.9
Section VI (Reading)	*15*	9.6	10.3	11.6	10.7	9.9	9.0	9.7	8.7
Section VII (Writing)	*20*	14.2	15.4	16.1	16.4	16.4	14.6	15.6	15.1
Combined (Overall)	***132***	**96.0**	**97.0**	**100.5**	**100.9**	**97.7**	**93.5**	**90.3**	**91.6**

Table 9. Comparison of mean scores for SPN 1121 for fall 2013 through spring 2017.

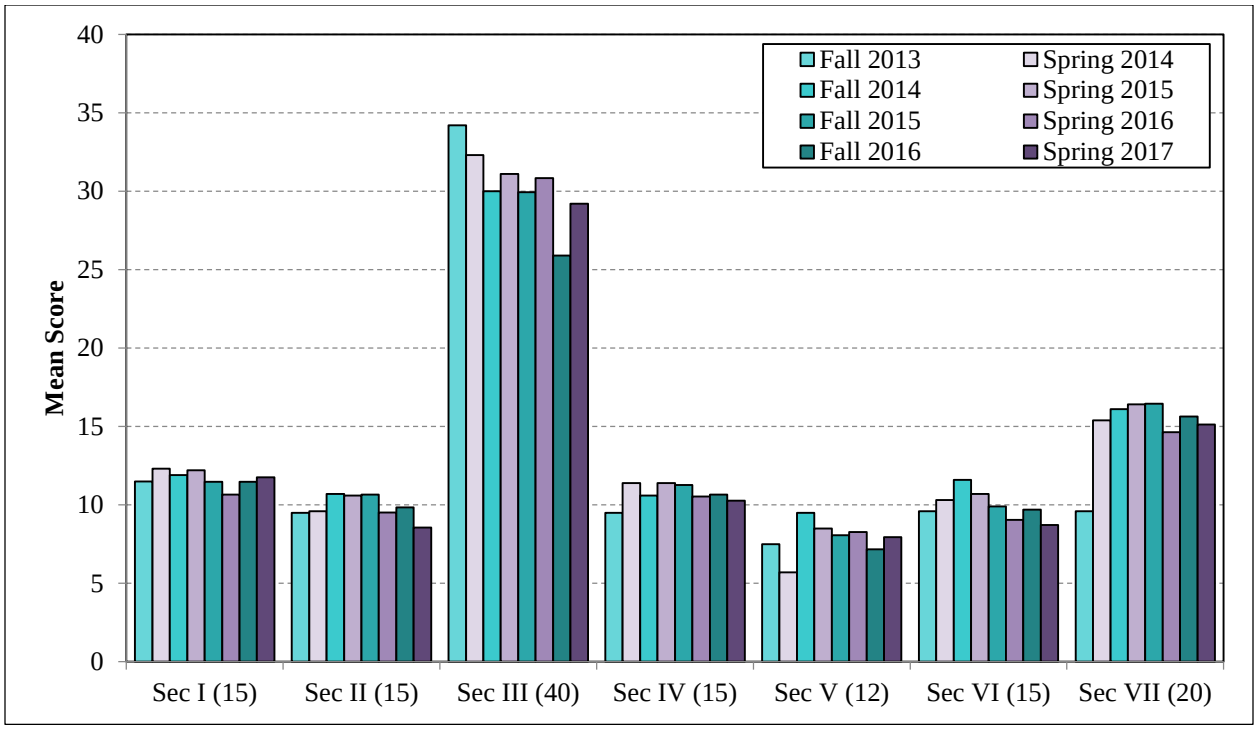

Figure 14. Comparison of mean scores for SPN 1121 through time.

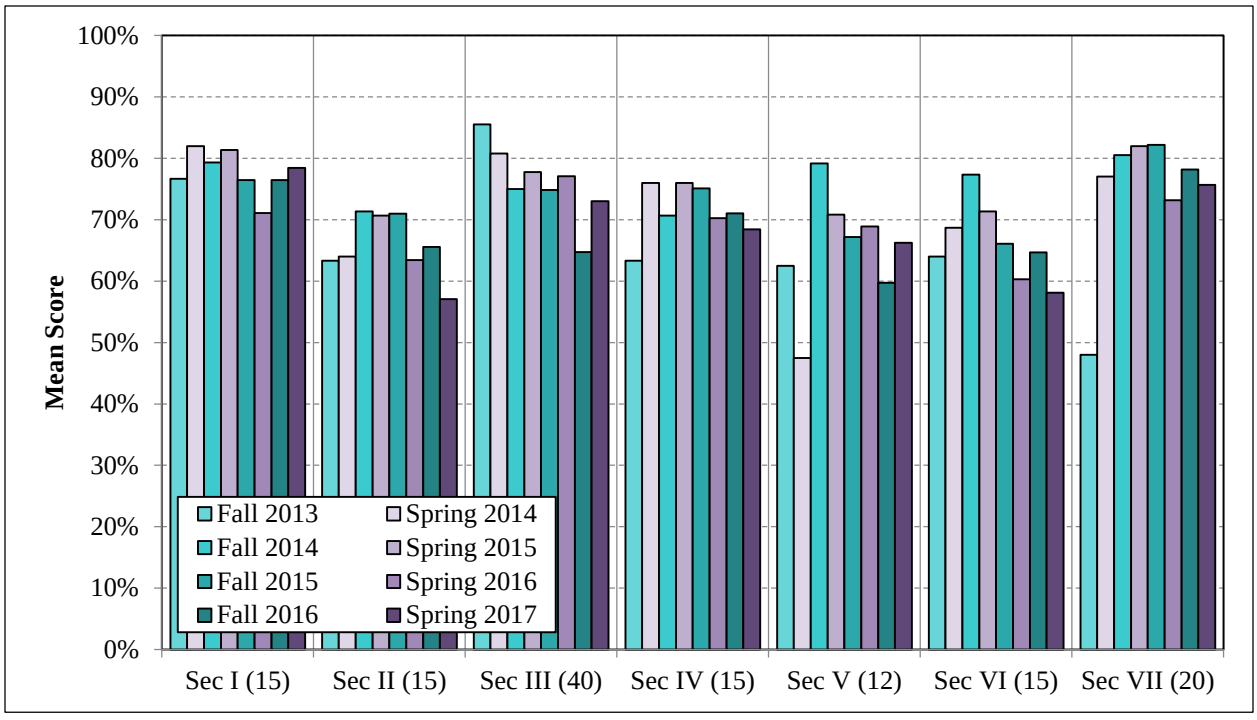

Figure 15. Comparison of mean scores (as percentage) for SPN 1121 through time from fall 2013 through spring 2017.

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 spring 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 is currently being used to develop and/or pilot a new tool for implementation in the fall 2017 term. As a result, no analyses for AY 2016-17 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 78% 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 55% of artifacts scored 70% or higher in Section II and 84% 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 58% of artifacts scored 70% or higher in Section IV and 90% 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 spring 2017.
5. In a comparison of online to traditional artifacts, online artifacts score 3.9 points lower than traditional. Results were not statistically significantly different.
6. No cross-campus comparison was completed because only two sites offered sections of SPN 1120 during spring 2017, one of which was FSW Online. As a result, comparison by site is encompassed exclusively in item #5 above.
7. In a study of score distribution by section, Sections I, III, and V exhibit peaks above 90% with the distribution trailing down with decreasing score. Section II, however, exhibit more widely distributed scores. Section II exhibits greater than 10% of artifacts scoring in each bin from 40-49% up through ≥ 90%. Also, Section IV exhibits a bimodal (dual peak) distribution centered on both ≥ 90% and 60-69%.
8. In a study of section score distribution based on overall score, S Section II is consistently the lowest performing compared to other sections between the ranges of 65-84%. For example, in the 70-74% range, the mean score for Section II is 55%, while the other four sections range from 66-81%. Additionally, Section III and Section V are over performing at the lowest overall scores. At the 60-64% range, the Section III mean score is 88%, and Section V is 80%, whereas other sections range from 42%-59%.
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 7.2/30 to as high as 25.3/30. Notably, five instructors inhabit a similar range (#2 through #6) which ranges just 3.0/30 points. Above that group of five is the highest score, 4.1/30 higher than #2. Below that group #6 is 3.1/30 lower, followed by 7.1/30, and down from that.

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 73% 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 38% of artifacts scored 70% or higher in Section II and 43% 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 55% 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 spring 2017.
5. In a comparison of online to traditional artifacts, online artifacts score 0.7 higher than traditional. Results were not statistically significantly different.
6. In a cross-campus comparison, Collier campus exhibits higher scores in all sections of the exam. FSW Online exhibits the second highest scores across 4 of 7 sections. Thomas Edison exhibits the second highest scores across 3 of 7 sections. The Charlotte campus consistently exhibits the lowest scoring on all exam sections. Results of the ANOVA exhibit a statistically significant difference between sites.
7. In a study of score distribution by section, Sections I, III, IV, V, and VII exhibit scores centered on ≥90%. In contrast, both Sections II and VI exhibit bimodal (two-peak) distributions centered on <30% and 80-89%.
8. In a study of score distribution based on overall score, Sections II and VI are consistently the lowest performing compared to other sections between the ranges of 60-84%. For example, in the 65-69% overall score range, the mean score for Sections II and VI are 59% and 48%, respectively. In comparison, the other five sections range from 70-79%. Additionally, Section I, III, and VII are over performing at the lowest overall scores. At the 55-59% overall score range, these sections mean scores range from 63-69%, respectively. By comparison, other sections range from 39%-55%.
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. with a range of only 0.4 in the last four fall terms. Sections II, IV, V, VI, and VII exhibit high variability over time.

5 REFERENCES

Cohen, J. 1988. Statistical power analysis for the behavioral sciences (2nd ed.). Lawrence Earlbaum Associates, Hillsdale, NJ.

Davis, J.C. 1973. Statistics and Data Analysis in Geology. John Wiley & Sons, New York, New York, 564 pp.

Lipsey, M.W. and Wilson, D.B. 1993. The efficacy of psychological, educational, and behavioral treatment: Confirmation from meta-analysis. American Psychologist, 48, 1181-1209.

McDonald, J.H. 2009. Handbook of Biological Statistics (2nd ed.). Sparky House Publishing, Baltimore, Maryland.

Rosenthal, R. and Rosnow, R.L. 1991. Essentials of behavioral research: Methods and data analysis (2nd ed.). McGraw Hill, New York, NY.

Wilkinson, L. 1999. APA Task Force on Statistical Inference. Statistical Methods in Psychology Journals: Guidelines and Explanations. American Psychologist 54 (8), 594–604.