

# Foreign Language Assessment Report – Fall 2014

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## 1 INTRODUCTION

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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). The assessment plan also provides comparisons between dual Enrollment and non-dual enrollment students, online versus traditional students, and by site, where possible. Where data is sufficient, additional analyses are provided including data distribution studies, longitudinal studies, and section-by-section comparisons.

For additional detail on further analysis not provided in this report, please contact Dr. Joseph F. van Gaalen, Coordinator of Academic Assessment, Academic Affairs ([jfvangaalen@fsw.edu](mailto:jfvangaalen@fsw.edu); x6965).

## 2 FRENCH

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During the Fall 2014 semester three sections of FRE1120 Elementary French I were offered. The three sections were taught by two different instructors and totaled 39 students. Artifacts from all 39 students were collected and analyzed. One section of FRE1121 Elementary French II was offered totaling 10 students. Artifacts from all 10 students were collected and analyzed.

### 2.1 DESCRIPTIVE STATISTICS & LEARNING OBJECTIVES

#### 2.1.1 FRE1120

Using a common course assessment the FSW French faculty defined three areas of interest for evaluation that apply to FRE1120, oral comprehension, reading, and writing. The first topic, oral comprehension, underwent a developing process during the Fall 2014 semester and was not included in final exam scoring but will be implemented for the first time as a portion of the common final exam in subsequent semesters. The Student Learning Outcomes (SLOs) and their measure of success are:

SLO1: Students will be able to understand spoken French. 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 (not yet included in data for Fall 2014 exam).

SLO2: Students will be able to understand written French. 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 X).

SLO3: Students will be able to write effectively in the French 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 I).

The faculty established measure of success for SLO2, 80% of students scoring 70% or higher in Section X, was met as results exhibit 84.6% of artifacts score 70% or higher in the reading competency exam section (Section X) (Table 1). The faculty established measure of success for SLO3, 80% of students scoring 70% or higher in Section I, was met. Results exhibit 94.9% of artifacts scored 70% or higher in Section I. For a graphical representation of SLO achievement, see Figure 1. The lowest achieving areas of the assessment exam are Section III and IX, at 64.1% and 46.4% achieving 70% or greater.

n = 39	Sec I	Sec II	Sec III	Sec IV	Sec V	Sec VI	Sec VII	Sec VIII	Sec IX	Sec X	Combined (Overall)
<b>Goal</b>	<i>80% of artifacts scored ≥70% for all sections</i>										
<b>% above Goal</b>	<b>94.9%</b>	<b>94.9%</b>	<b>64.1%</b>	<b>86.8%</b>	<b>79.5%</b>	<b>82.1%</b>	<b>87.2%</b>	<b>84.6%</b>	<b>46.4%</b>	<b>84.6%</b>	
Mean	90.0%	92.1%	75.1%	86.4%	82.8%	85.6%	85.9%	81.8%	62.0%	87.3%	81.0%
Median	100%	100%	80%	92%	90%	100%	90%	90%	64%	90%	85%
Section Score Max	10	6	20	6	20	8	10	10	14	20	122
Section Mean	9.0	5.5	15.0	5.2	16.6	6.8	8.6	8.2	8.7	17.5	98.8
Section Median	10	6	16	5.5	18	8	9	9	9	18	103.5

Table 1. Percentage of student achievement level as per SLOs (FRE1120).

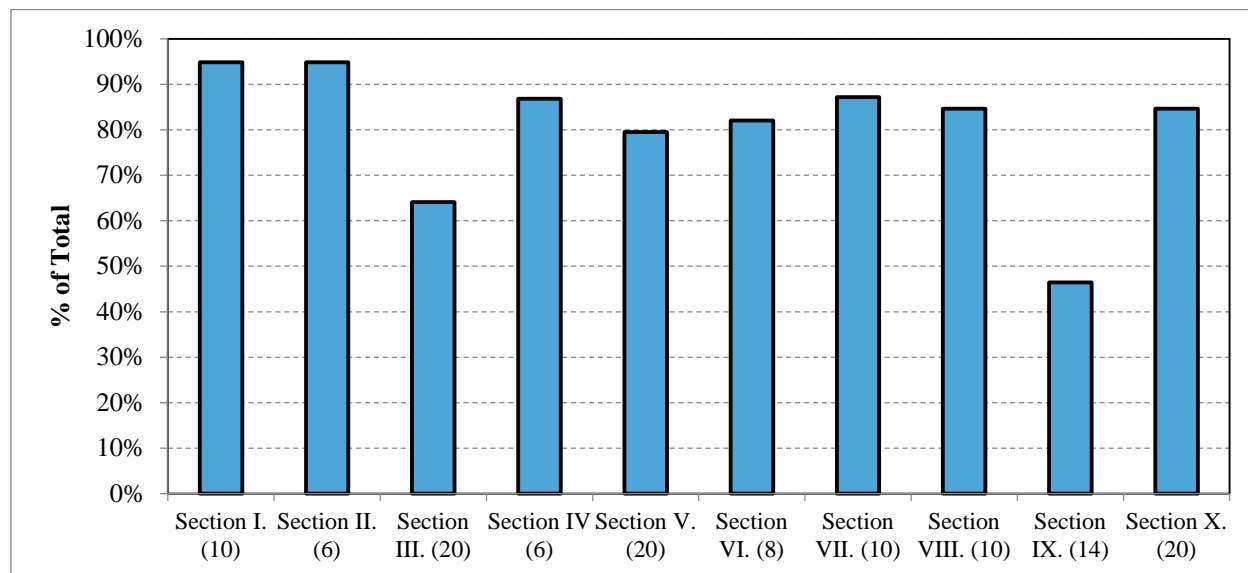


Figure 1. SLO achievement for FRE1120 by exam section (Percentage of student achievement level as per SLOs).

### 2.1.2 FRE1121

Using a common course assessment the FSW French faculty defined the same three areas of interest for evaluation that apply to FRE1121 as those used for FRE1120. For details on each SLO, see 2.1.1. The only difference between FRE1121 and FRE1120 in terms of measuring these outcomes is that the exam sections differ slightly and are noted below.

The faculty established measure of success for SLO2, 80% of students scoring 70% or higher in Section XI, was met as results exhibit 100% of artifacts score 70% or higher in the reading competency exam section (Section XI) (Table 2). The faculty established measure of success for SLO3, 80% of students scoring 70% or higher in Section I, was also met. Results exhibit 80.0% of artifacts scored 70% or higher in Section I. For a graphical representation of SLO achievement, see Figure 2.

n = 10	Sec I	Sec II	Sec III	Sec IV	Sec V	Sec VI	Sec VII	Sec VIII	Sec IX	Sec X	Sec XI	Combined (Overall)
<b>Goal</b>	80% of artifacts scored $\geq 70\%$ for all sections											
<b>% above Goal</b>	<b>80.0%</b>	<b>50.0%</b>	<b>40.0%</b>	<b>50.0%</b>	<b>10.0%</b>	<b>70.0%</b>	<b>70.0%</b>	<b>40.0%</b>	<b>70.0%</b>	<b>40.0%</b>	<b>100%</b>	
Mean	78.0%	90.5%	61.9%	61.9%	43.8%	77.5%	75.0%	92.0%	77.5%	45.8%	83.5%	70.3%
Median	80.0%	93.0%	63.0%	69.0%	42.0%	100%	75.0%	60.0%	75.0%	33.0%	85.0%	67%
Section Score Max	10	10	8	8	12	4	8	5	4	12	20	101
Section Mean	7.8	9.1	5.0	5.0	5.3	3.1	6.0	4.6	3.1	5.5	16.7	71.0
Section Median	8	9.25	5	5.5	5	4	6	3	3	4	17	67.5

Table 2. Percentage of student achievement level as per SLOs (FRE1121).

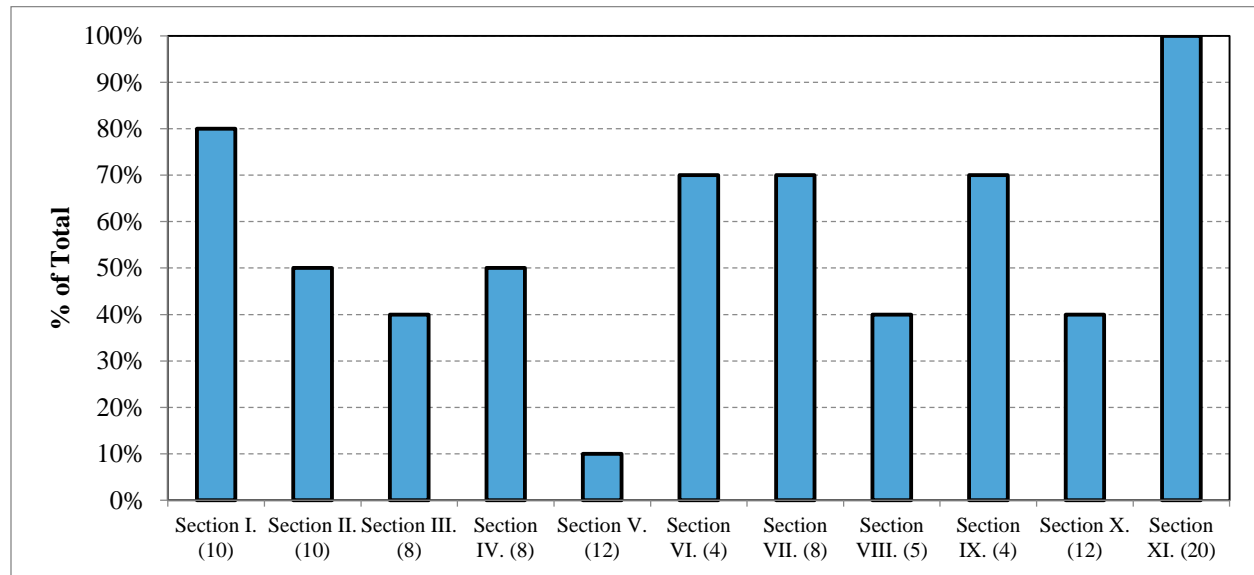


Figure 2. SLO achievement for FRE1121 by exam section (Percentage of student achievement level as per SLOs).

## 2.2 EXPLORATORY ANALYSIS AND 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.

### 2.2.1 FRE1120

The FRE1120 Elementary French I course was offered in only traditional format. Additionally, only two artifacts originated from Dual Enrollment (DE) students. Finally, FRE1120 was offered only at one site, the Thomas Edison (Lee) campus.

### 2.2.1.1 Comparison by Site, Format, or Student Type

#### 2.2.1.1.1 Dual Enrollment to non-Dual Enrollment Comparison

Only two Dual Enrollment (DE) students were enrolled during Fall 2014 so no comparison study between online and traditional could be completed.

#### 2.2.1.1.2 Online to Traditional Comparison

No online sections of the course were run during Fall 2014 so no comparison study between online and traditional could be completed.

#### 2.2.1.1.3 Comparison by Campus/Site

All sections of the course were run on the Thomas Edison (Lee) campus so no cross site comparison could be completed.

### 2.2.1.2 Data Distribution (& Longitudinal Study)

A histogram depicting the distribution of scores across each exam section as well as overall (combined) score is shown in Figure 3. All sections exhibit S-curves where the largest percentages of artifacts occur in the highest scoring bins with progressively smaller percentages in lower scoring bins. Mathematically, an multi-section exam with S-curve score distributions in each section results in the typical bell-shaped curve for overall scores. Sections III, VIII, IX and X, however, exhibit increased percentages of artifacts in the lower scoring bins compared with other sections.

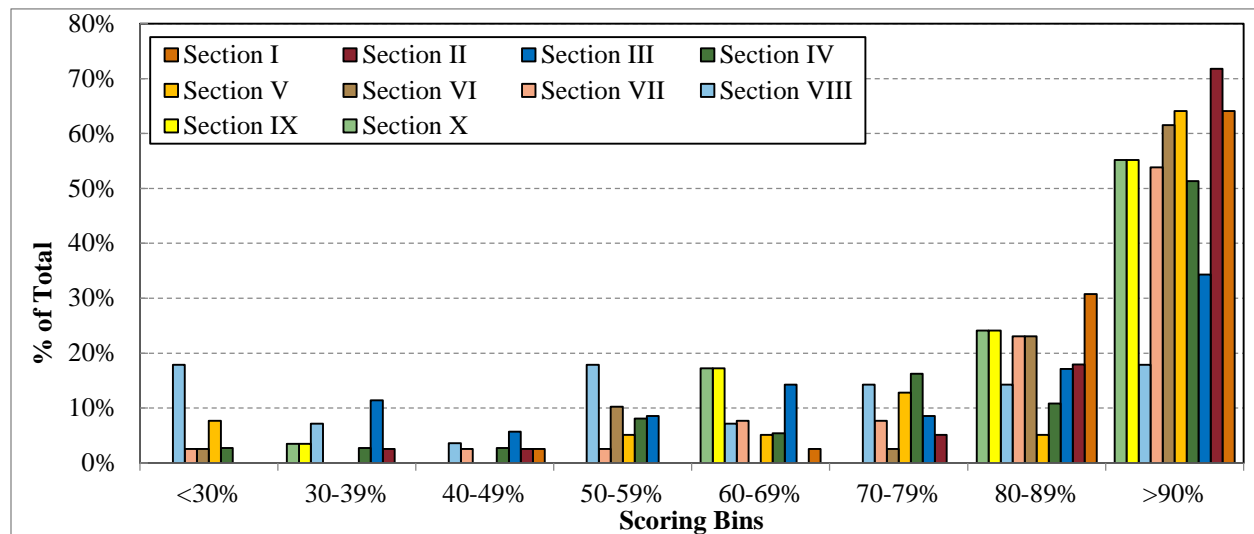


Figure 3. Histogram of FRE1120 exam sections and combined (overall) score for Fall 2014.

A series of histograms comparing Fall 2014 data with Fall 2013 data for Overall (Combined) scores along with each exam section (Sections I-IX) are shown in Figures 4 through 14. Overall scores exhibit no discernable trend towards improvement from year-to-year. Additionally, Fall 2014 exhibits a slight bimodality when compared with Fall 2013.

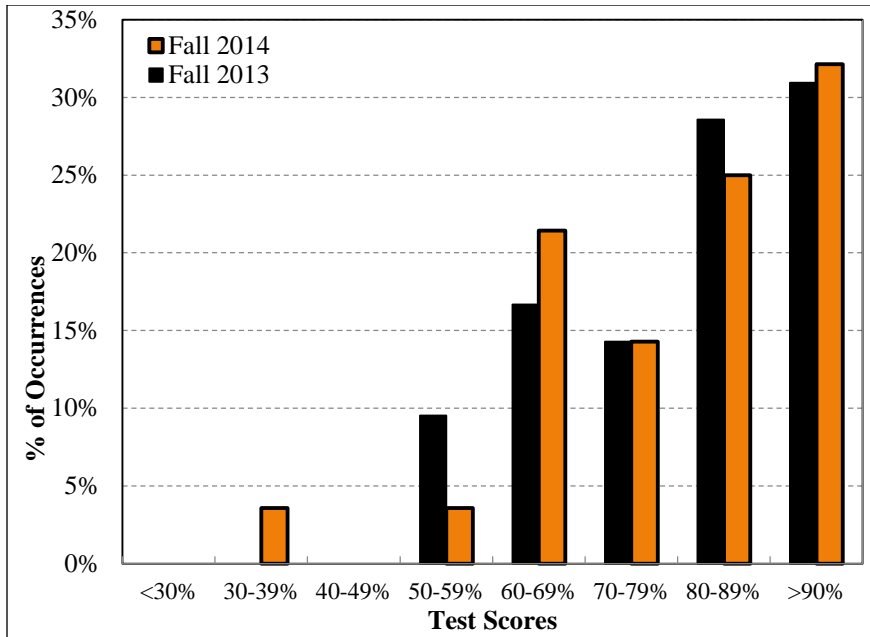


Figure 4. Histogram of FRE1120 Combined (Overall) scores comparing Fall 2013 (black) with Fall 2014 (orange).

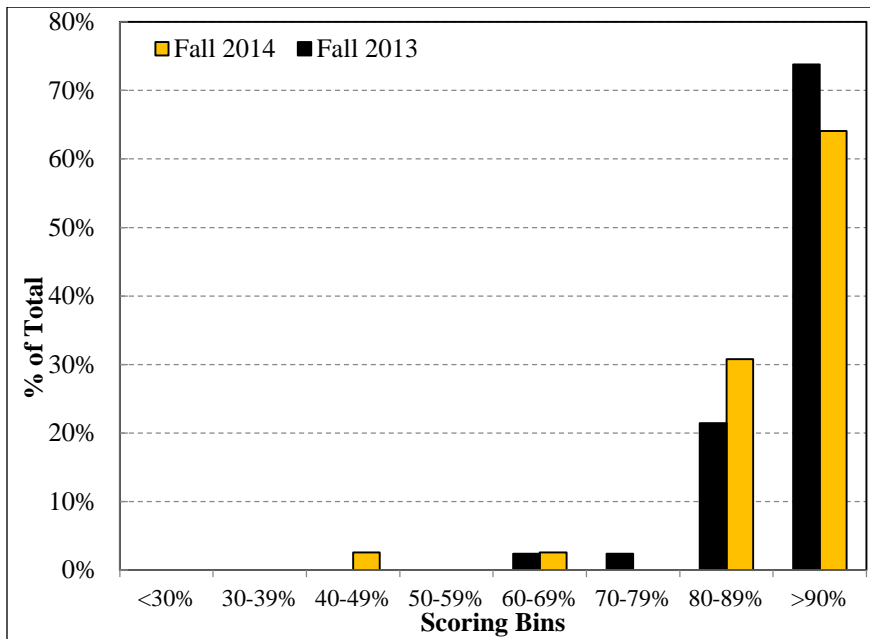


Figure 5. Histogram of FRE1120 Section I scores comparing Fall 2013 (black) with Fall 2014 (orange).

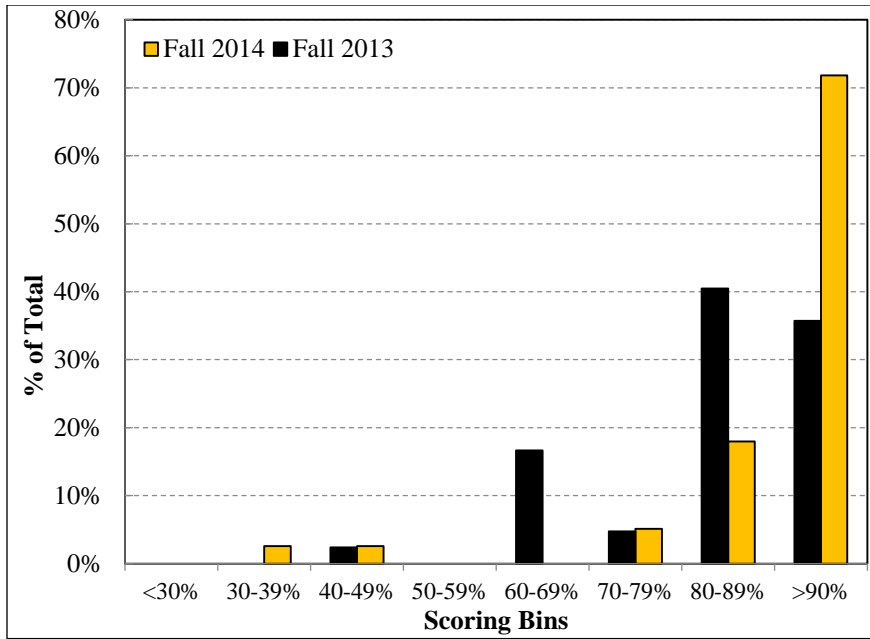


Figure 6. Histogram of FRE1120 Section II scores comparing Fall 2013 (black) with Fall 2014 (orange).

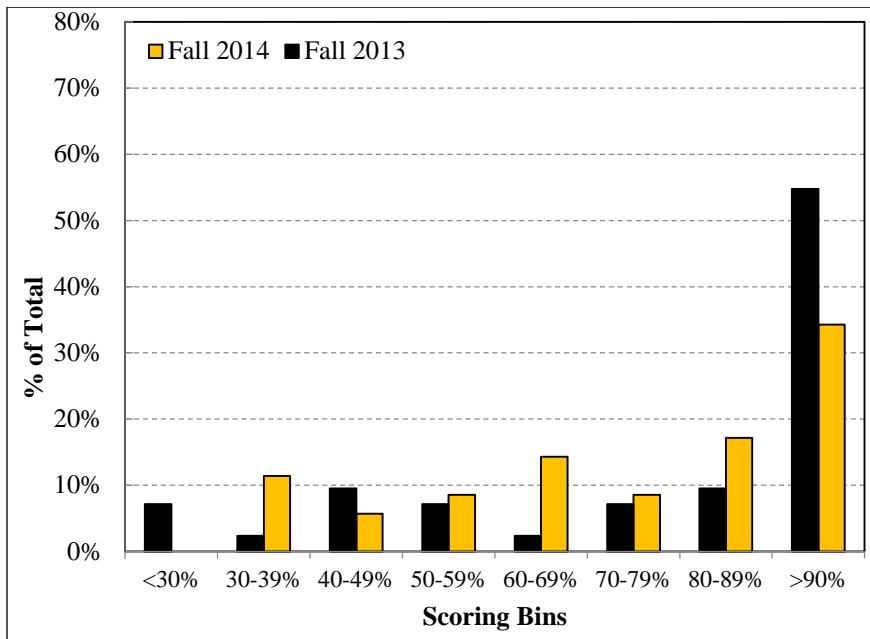


Figure 7. Histogram of FRE1120 Section III scores comparing Fall 2013 (black) with Fall 2014 (orange).

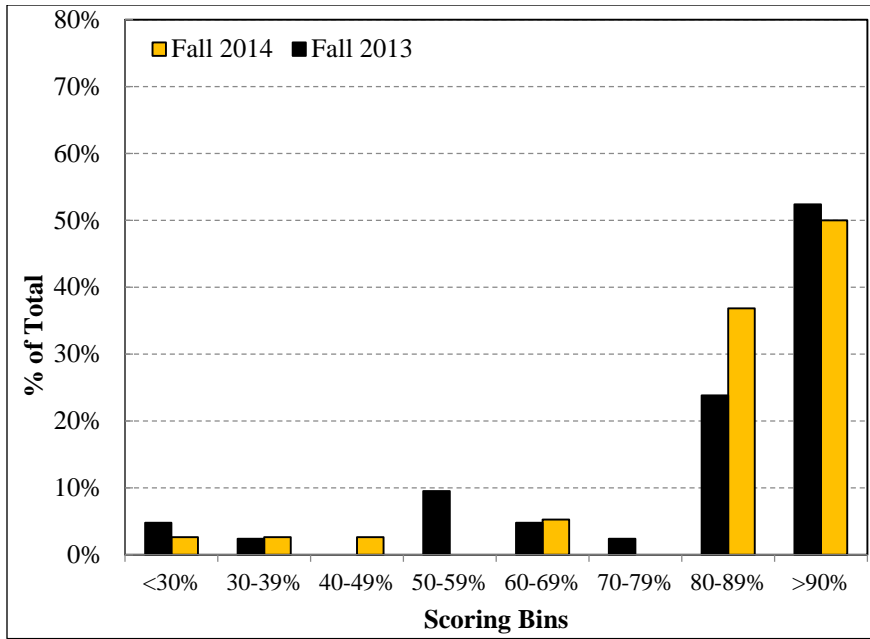


Figure 8. Histogram of FRE1120 Section IV scores comparing Fall 2013 (black) with Fall 2014 (orange).

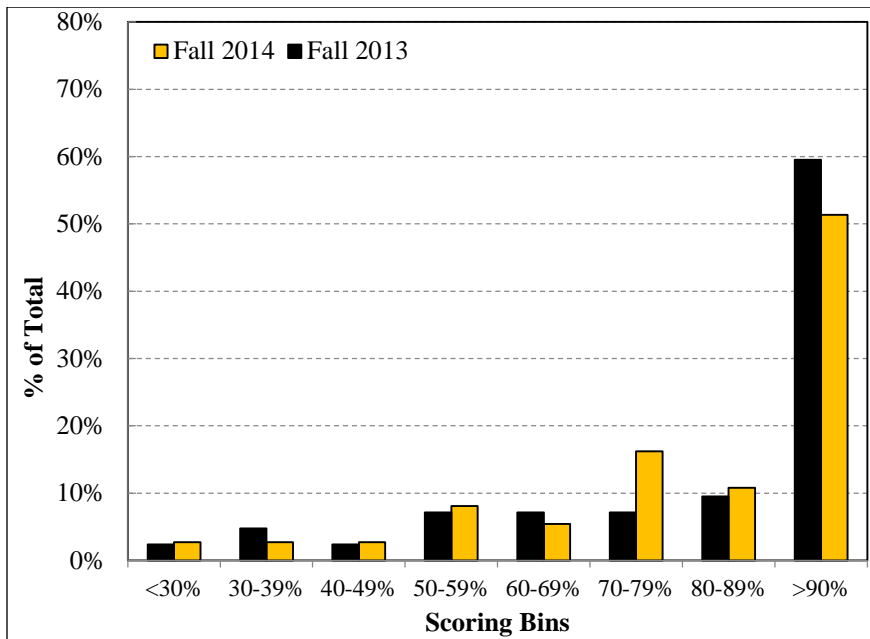


Figure 9. Histogram of FRE1120 Section V scores comparing Fall 2013 (black) with Fall 2014 (orange).

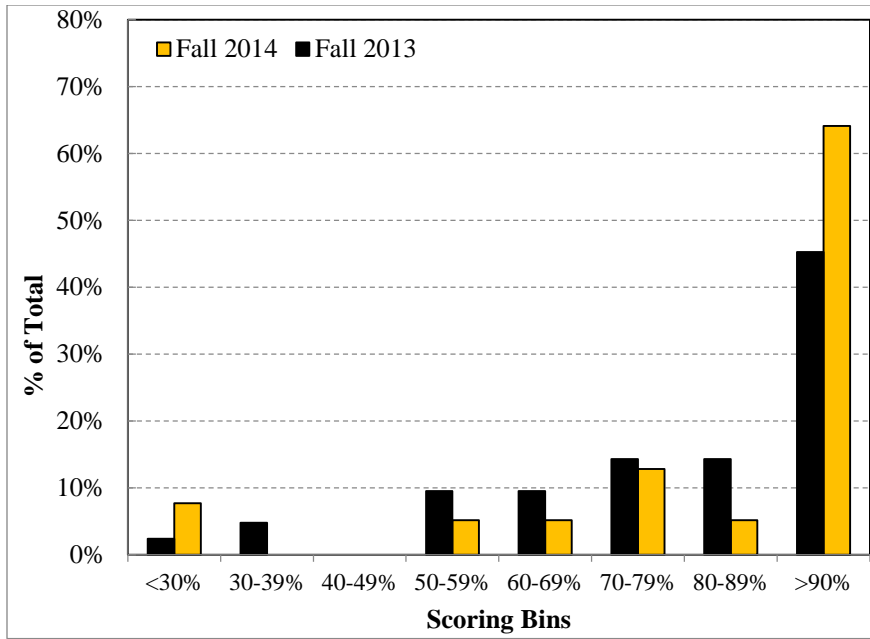


Figure 10. Histogram of FRE1120 Section VI scores comparing Fall 2013 (black) with Fall 2014 (orange).

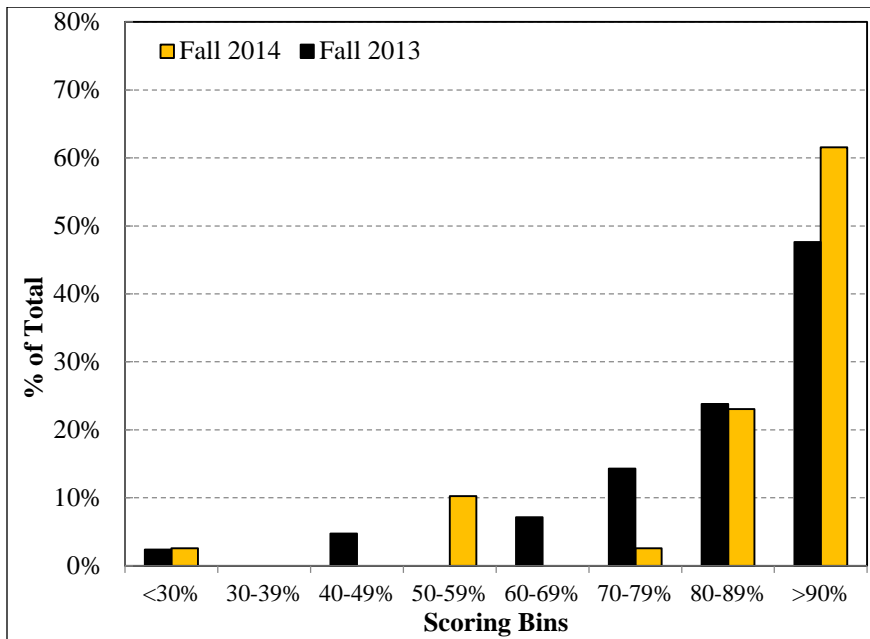


Figure 11. Histogram of FRE1120 Section VII scores comparing Fall 2013 (black) with Fall 2014 (orange).



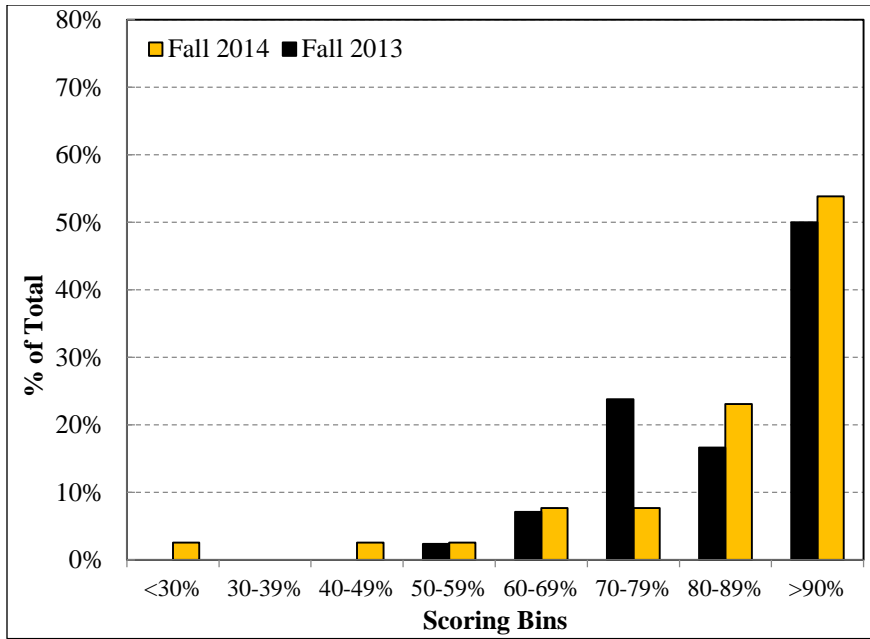


Figure 12. Histogram of FRE1120 Section VIII scores comparing Fall 2013 (black) with Fall 2014 (orange).

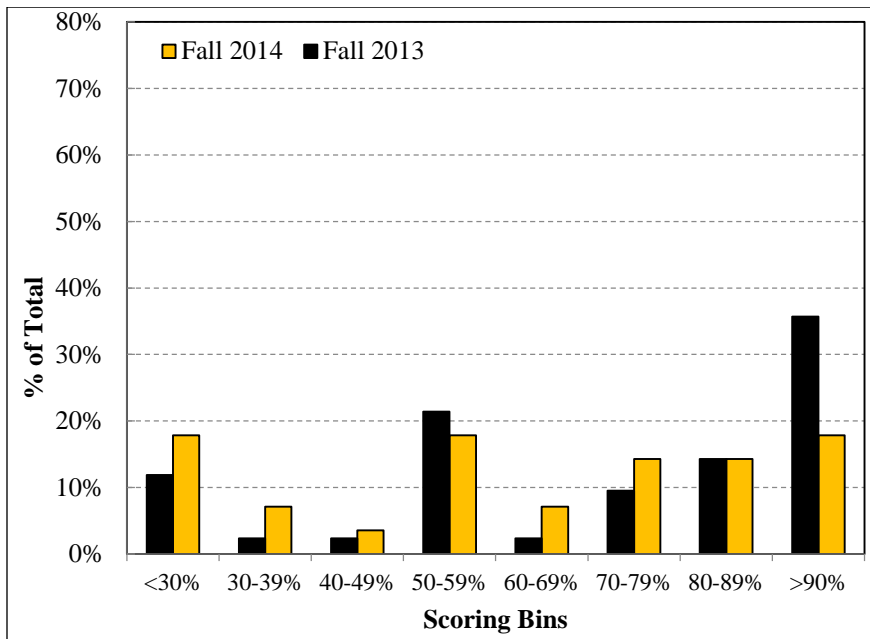


Figure 13. Histogram of FRE1120 Section IX scores comparing Fall 2013 (black) with Fall 2014 (orange).

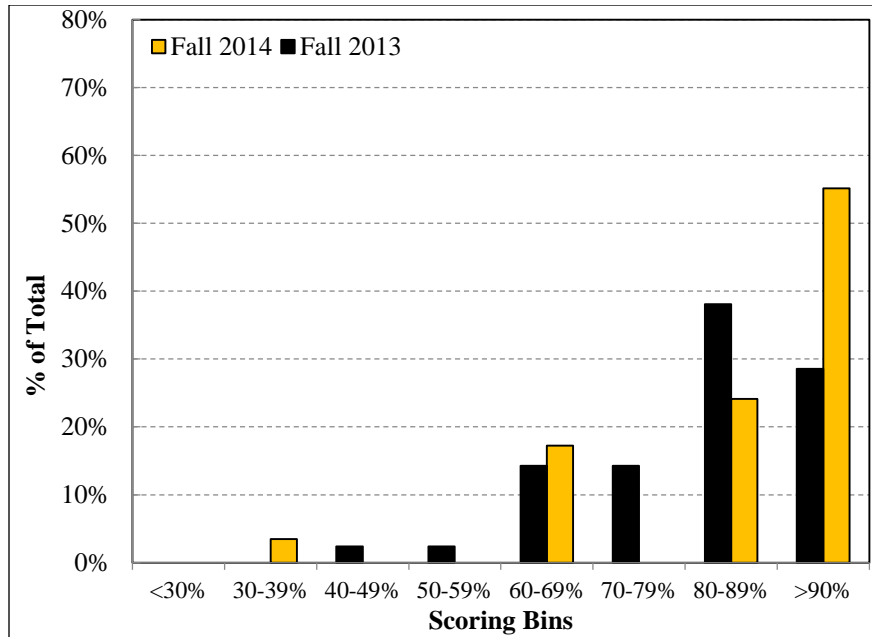


Figure 14. Histogram of FRE1120 Section X scores comparing Fall 2013 (black) with Fall 2014 (orange).

Sections II, VI, VII, VIII, and X data for Fall 2014 show the improvement when compared with Fall 2013 (see Figures 6, 10-12, 14). In all of these sections there is an increase in the percentage of artifacts scored  $\geq 90$  and a general shift in distribution towards higher scores. Section III exhibits the greatest declines when compared with Fall 2013. Artifacts scoring below 70% increased from 18% to 40% from Fall 2013 to Fall 2014.

## 2.2.2 FRE1121

The FRE1121 Elementary French II course was offered in traditional and online format, however, only four online students were enrolled. Additionally, no artifacts originated from Dual Enrollment (DE) students. Finally, FRE1121 was offered only at one site, the Thomas Edison (Lee) campus.

### 2.2.2.1 Comparison by Site, Format, or Student Type

#### 2.2.2.1.1 Dual Enrollment to non-Dual Enrollment Comparison

No Dual Enrollment (DE) students were enrolled during Fall 2014 so no comparison study between the two cohorts could be completed.

#### 2.2.2.1.2 Online to Traditional Comparison

Only four online artifacts of the course were collected during Fall 2014 so no comparison study between online and traditional could be completed.

#### 2.2.2.1.3 Comparison by Campus/Site

Only one section of FRE1121 was run during Fall 2014 so no cross site comparison could be completed.

### 2.2.2.2 Data Distribution (& Longitudinal Study)

The exam for FRE1121 has changed since the previous year and so year-to-year comparison is not relevant.

### 3 SPANISH

During the Fall 2014 semester six sections of SPN1120 Beginning Spanish I were offered. The six sections were taught by four different instructors and totaled 93 students. Artifacts from all 93 students were collected and analyzed. Three sections of SPN1121 Beginning Spanish II were offered totaling 25 students. Artifacts from all 25 students were collected and analyzed.

#### 3.1 DESCRIPTIVE STATISTICS & LEARNING OBJECTIVES

##### 3.1.1 SPN1120

Using a common course assessment the FSW Spanish faculty defined three areas of interest for evaluation that apply to SPN1120. The Student Learning Outcomes (SLOs) and their measure of success are:

SLO1: 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).

SLO2: 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).

SLO3: 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 SLO1, 80% of students scoring 70% or higher in Section I, was not met as results exhibit only 68.8% of artifacts score 70% or higher in the oral competency exam section (Section I) (Table 3). The faculty established measure of success for SLO2, 80% of students scoring 70% or higher in Sections II and III, was not met. Results exhibit 48.4% of artifacts scored 70% or higher in Section II and 86.0% of artifacts scored 70% or higher in Section III. Similarly, the faculty established measure of success for SLO3, 80% of students scoring 70% or higher in Sections IV and V, was not met. Results exhibit 59.1% of artifacts scored 70% or higher in Section IV and 83.9% of artifacts scored 70% or higher in Section V. For a graphical representation of SLO achievement, see Figure 15.

n = 93	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					
<b>% above Goal</b>	<b>68.8%</b>	<b>48.4%</b>	<b>86.0%</b>	<b>59.1%</b>	<b>83.9%</b>	
Mean	78.9%	67.6%	85.1%	74.1%	82.5%	74.8%
Median	86.7%	68.3%	90.0%	80.0%	87.5%	76.8%
Section Score Max	15	60	15	15	20	125
Section Mean	11.8	40.5	12.8	11.1	16.5	92.8
Section Median	13	41	13.5	12	17.5	

Table 3. Percentage of student achievement level as per SLOs (SPN1120).

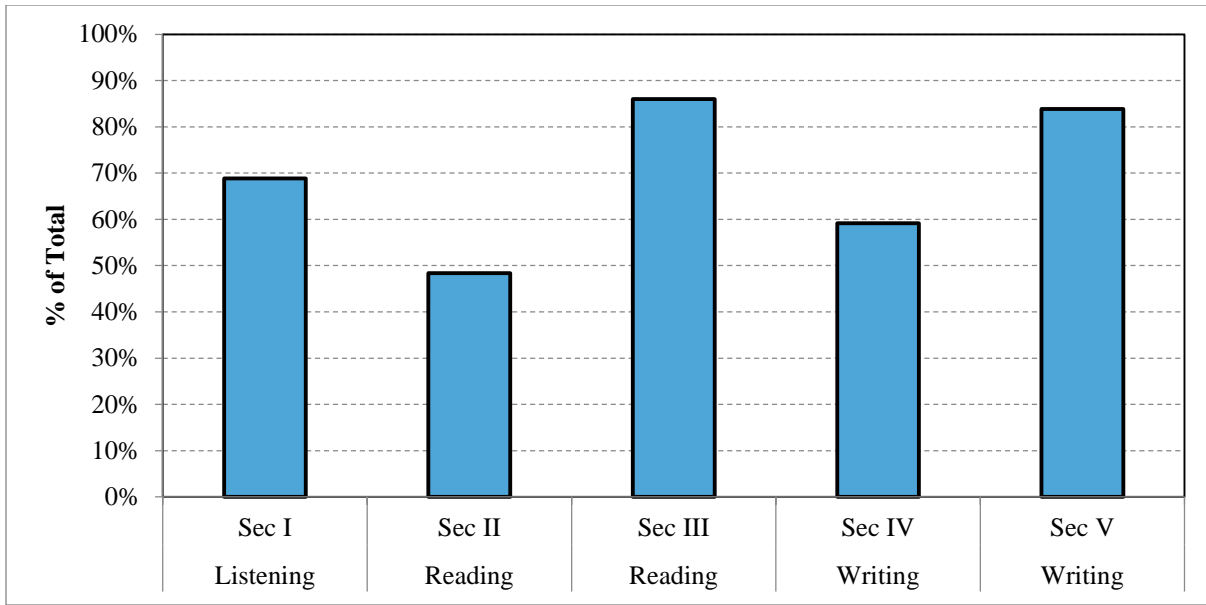


Figure 15. SLO achievement for SPN1120 by exam section (Percentage of student achievement level as per SLOs).

### 3.1.2 SPN1121

Using a common course assessment the FSW Spanish faculty defined the same three areas of interest for evaluation that apply to SPN1121 as those used for SPN1120. For details on each SLO, see 3.1.1. The only difference between SPN1121 and SPN1120 in terms of measuring these outcomes is that the exam sections differ slightly and are noted in Table 4 below.

The faculty established measure of success for SLO1, 80% of students scoring 70% or higher in Section I, was nearly met as results exhibit 76.0% of artifacts score 70% or higher in the oral competency exam section (Section I) (Table 4). The faculty established measure of success for SLO2, 80% of students scoring 70% or higher in reading only sections, Sections II, and VI, was not met. Results exhibit 60.0% of artifacts scored 70% or higher in Section II and 76.0% of artifacts scored 70% or higher in Section VI. The faculty established measure of success for SLO3, 80% of students scoring 70% or higher in writing only sections, Sections V and VII, was met. Results exhibit 84.0% of artifacts scored 70% or higher in Section V and 80.0% of artifacts scored 70% or higher in Section VII. For a graphical representation of SLO achievement, see Figure 16.

n = 25	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	76.0%	60.0%	76.0%	60.0%	84.0%	76.0%	80.0%	
Mean	79.2%	71.3%	75.1%	70.8%	79.4%	77.6%	80.5%	78.5%
Median	83.3%	83.3%	80.0%	70.0%	83.3%	80.0%	85.0%	83.6%
Section Score Max	15	15	40	15	12	15	20	128
Section Mean	11.9	10.7	30.0	10.6	9.5	11.6	16.1	100.5
Section Median	12.5	12.5	32	10.5	10	12	17	107

Table 4. Percentage of student achievement level as per SLOs (SPN1121).

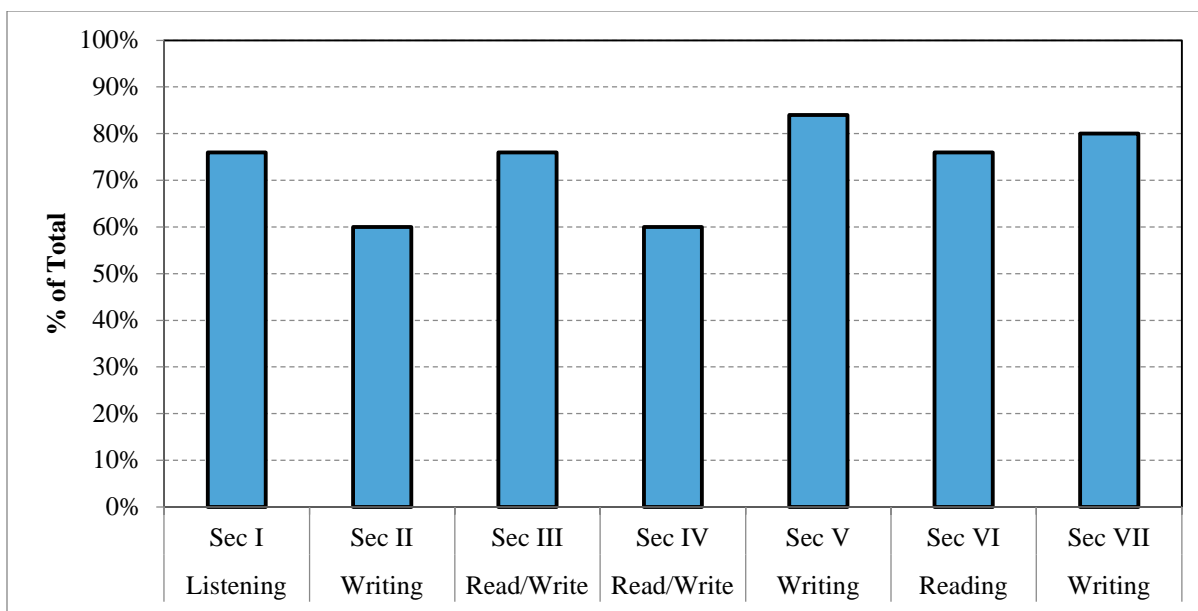


Figure 16. SLO achievement for SPN1121 by exam section (Percentage of student achievement level as per SLOs).

## 3.2 EXPLORATORY ANALYSIS AND 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.

### 3.2.1 SPN1120

The SPN1120 Beginning Spanish I course was offered in only traditional format. No online courses were held. Additionally, a small proportion of artifacts originated from Dual Enrollment (DE) students. All of the DE artifacts used in the analysis originate from onsite locations as opposed to offsite, strictly DE sections. Finally, SPN1120 was offered at the Charlotte, Collier, and Thomas Edison (Lee) campus.

#### 3.2.1.1 Comparison by Site, Format, or Student Type

##### 3.2.1.1.1 Dual Enrollment to non-Dual Enrollment Comparison

During the Fall 2014 semester, 9 total Dual Enrollment (DE) students were enrolled in SPN1120 and 84 non-Dual Enrollment (nonDE) students were enrolled in SPN1120. A comparison of mean scores by exam section is provided in Table 5. Mean scores between DE and nonDE are comparable to each other with no statistically significant differences among any section by way of a Welch's t-test according to standard methods (Davis, 1973; de Winter 2013; McDonald, 2009; Wilkinson, 1999). In other words, differences between DE and nonDE scores cannot be ruled out as simply random occurrence.

<b>df = 91</b>	<b>Section I (Oral)</b>	<b>Section II (Reading)</b>	<b>Section III (Reading)</b>	<b>Section IV (Written)</b>	<b>Section V (Written)</b>	<b>Combined (Overall)</b>
<i>Section Max</i>	<i>15</i>	<i>60</i>	<i>15</i>	<i>15</i>	<i>20</i>	<i>125</i>
DE mean	11.8	38.9	13.1	10.7	16.8	91.3
nonDE mean	11.8	40.7	12.7	11.2	16.5	92.9
Effect Size	0.02	0.08	-0.12	0.09	-0.04	0.04
p-value	0.944	0.727	0.567	0.676	0.843	0.848

Table 5. Comparison of mean scores for DE and nonDE. Bold denotes statistically significant difference. Positive effect sizes indicate a higher mean score for nonDE 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 non-statistically significant results exhibit what Cohen (1988) would consider small effect sizes ranging from 0.02 to 0.12 (Table 5). In other words, non-overlap from DE artifacts to nonDE artifacts range from approximately 0% to 8%.

#### 3.2.1.1.2 Online to Traditional Comparison

No online sections of the course were run during Fall 2014 so no comparison study between online and traditional could be completed.

#### 3.2.1.1.3 Comparison by Campus/Site

Of the 93 artifacts collected from SPN1120, 13 originated from the Charlotte Campus, 22 from the Collier Campus, and 58 from the Thomas Edison (Lee) Campus. Scores by section varied greatly across campuses. A comparison of mean scores by exam section is provided in Table 6.

	<b>Section I (Oral)</b>	<b>Section II (Reading)</b>	<b>Section III (Reading)</b>	<b>Section IV (Written)</b>	<b>Section V (Written)</b>	<b>Combined (Overall)</b>
<i>Section Max</i>	<i>15</i>	<i>60</i>	<i>15</i>	<i>15</i>	<i>20</i>	<i>125</i>
Charlotte	9.8	27.9	10.9	7.7	14.3	70.5
Collier	<b>12.5</b>	42.2	<b>13.8</b>	<b>13.2</b>	<b>17.6</b>	<b>99.3</b>
Thomas Edison (Lee)	12.0	<b>42.7</b>	12.8	11.1	16.6	95.3

Table 6. Comparison of mean scores by site. Bold denotes highest mean score in that dimension among all sites.

The Charlotte campus is consistently lower than the other two sites in all sections and substantially so in Section II. A plot comparing descriptive statistics of the scores by site is presented in Figure 17. A one-way analysis of variance was used to compare means of the scores at each site. Results of the ANOVA exhibit a statistically significant difference between sites for all sections and combined score (see Table 7). Therefore, we reject the null hypothesis that the mean 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.

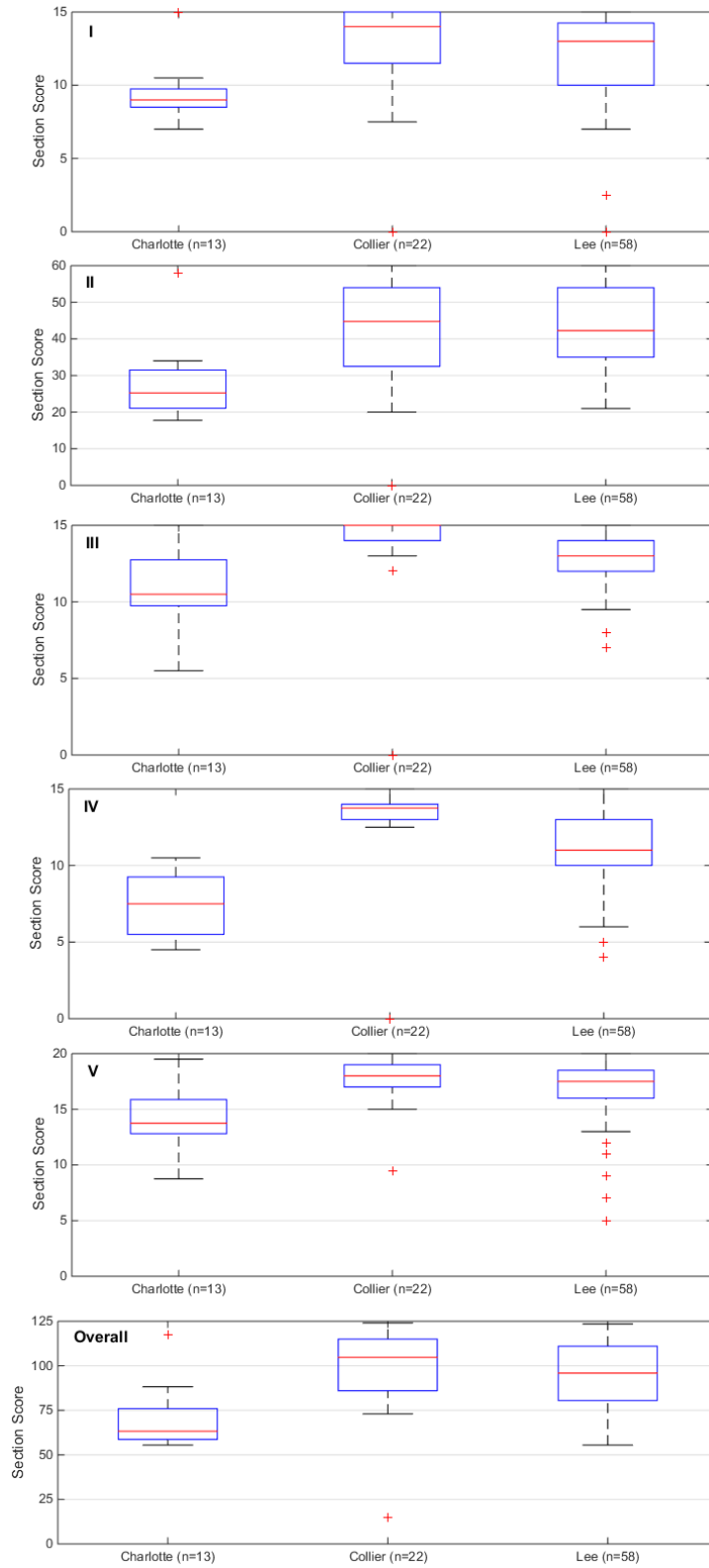


Figure 17. Box-Whisker plot of scores distributed by site for SPN1120. Red line depicts median score. Upper and lower box boundaries indicate 75% quartile and 25% quartile (box represents central 50% of the scores). Vertical lines represent remaining scores outside central 50% that are not outliers. Red '+'s denote outliers. Sections labeled in upper-left (I through V and Overall).

Source of Variation	Sum of squared differences	df	Mean Squares	F <sub>obs</sub>	p-value	F <sub>crit</sub>
<i>Section I</i>						
Between Sites	59.3	2	29.6	3.12	<b>0.049</b>	3.10
Within Sites	825.4	87	9.5			
Total	884.7					
<i>Section II</i>						
Between Sites	2164.9	2	1082.4	7.17	<b>0.001</b>	3.10
Within Sites	13132.9	87	151.0			
Total	15297.8					
<i>Section III</i>						
Between Sites	69.8	2	34.9	6.38	<b>0.003</b>	3.10
Within Sites	476.0	87	5.47			
Total	545.8					
<i>Section IV</i>						
Between Sites	235.6	2	117.8	17.96	<b>2.95x10<sup>-7</sup></b>	3.10
Within Sites	570.7	87	6.56			
Total	806.3					
<i>Section V</i>						
Between Sites	89.7	2	44.8	6.03	<b>0.004</b>	3.10
Within Sites	646.7	87	7.4			
Total	736.4					
<i>Combined (Overall) Score</i>						
Between Sites	7083.6	2	3541.8	9.38	<b>2.04x10<sup>-4</sup></b>	3.10
Within Sites	32840.6	87	377.5			
Total	39924.2					

Table 7. Results of one-way ANOVA of scores at each site for SPN1120. Statistically significant results p-values in bold.

### 3.2.1.2 Data Distribution (& Longitudinal Study)

A histogram depicting the distribution of scores across each exam section as well as overall (combined) score is shown in Figure 4. Sections I, III, and V exhibit S-curves where the largest percentages of artifacts occur in the highest scoring bins with progressively smaller percentages in lower scoring bins. Mathematically, a multi-section exam with S-curve score distributions in each section results in the typical bell-shaped curve for overall scores.

Section II and IV, however, stand apart from this typical pattern. For Section II, the S-curve distribution is far less pronounced with ample percentages of artifacts falling in the lower scoring bins. Section II exhibits 10% or more of artifacts in the 50-59, 40-49, and 30-39 scoring bins where Sections I, III, and V fall well below that. Section IV exhibits a bimodal distribution with peaks in the  $\geq 90$  and 60-69 scoring bins. It is worth noting that both Sections II and IV are also the most dissimilar across sites (see Figure 18).



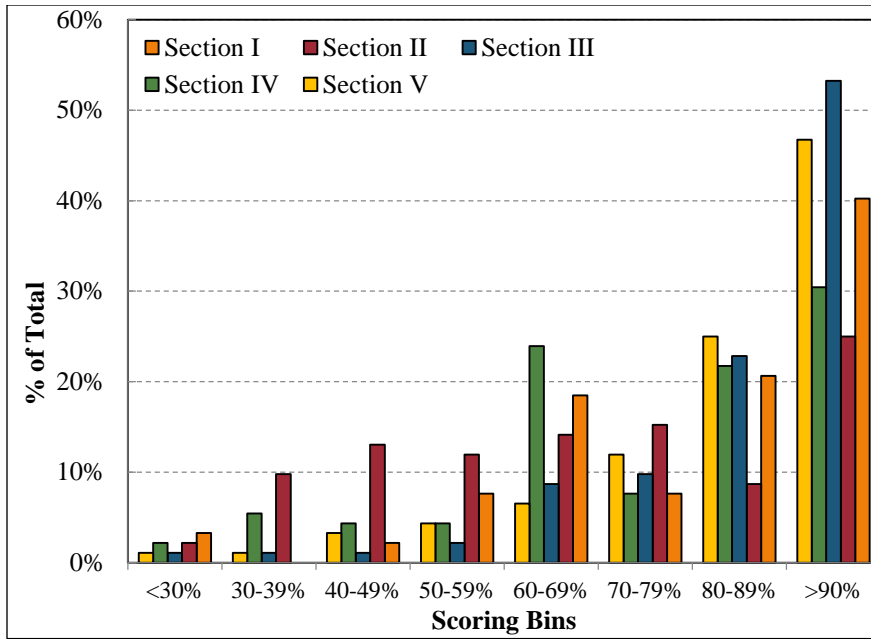


Figure 18. Histogram of SPN1120 exam sections and combined (overall) score for Fall 2014.

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 19). The color represents the mean section score achieved overall score as shown in the x-axis as a percentage.

A series of histograms comparing Fall 2014 data with Fall 2013 data for Overall (Combined) scores along with each exam section (Sections I-V) are shown in Figures 20 through 25. Overall scores exhibit substantial improvement from year-to-year. The percentage of artifacts scoring  $\geq 90$  more than doubled from year-to-year from 10% in Fall 2013 to 22% in Fall 2014.

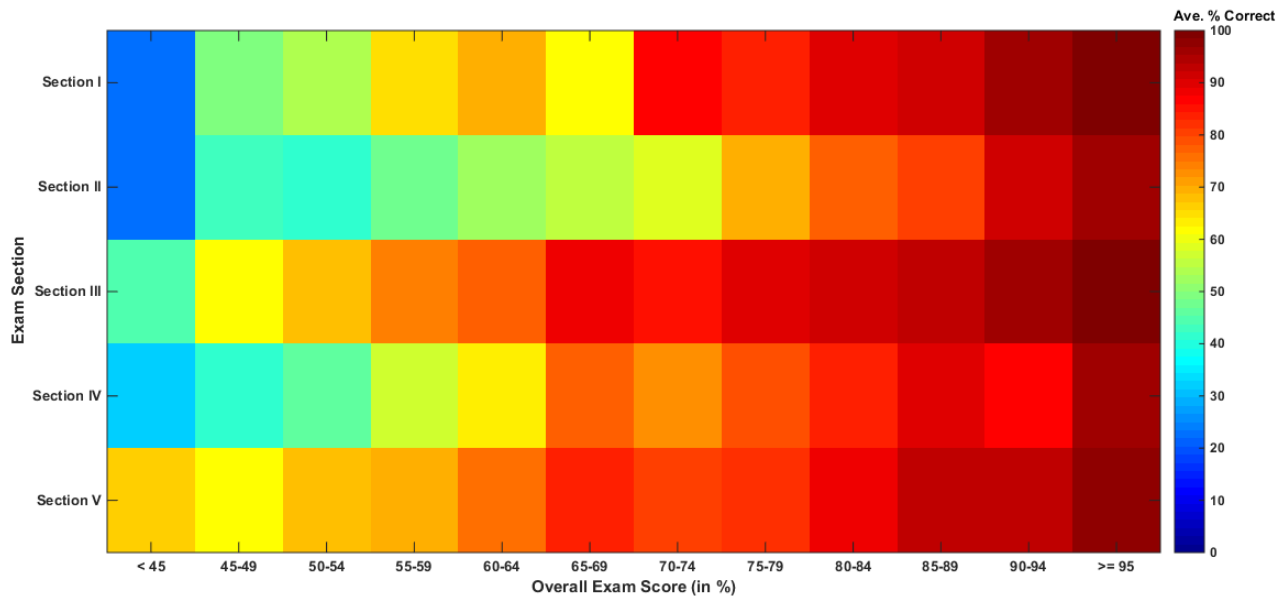


Figure 19. Colormap of mean scores for each exam section based on overall scoring bin for SPN1120.

Section V exhibits the highest mean scores despite failing overall scores at 65% where other sections at the same overall score exhibit mean scores ranging from 23% to 44% (Figure 19). This trend is visible from overall scores <45 up to the 65-69% scoring bin. Section II exhibits the lowest mean scores among overall scores ranging from 60-79%. This is most noticeable in the 70-74% scoring bin in which Section II exhibits a mean score of 59% where other sections range from 72-87%.

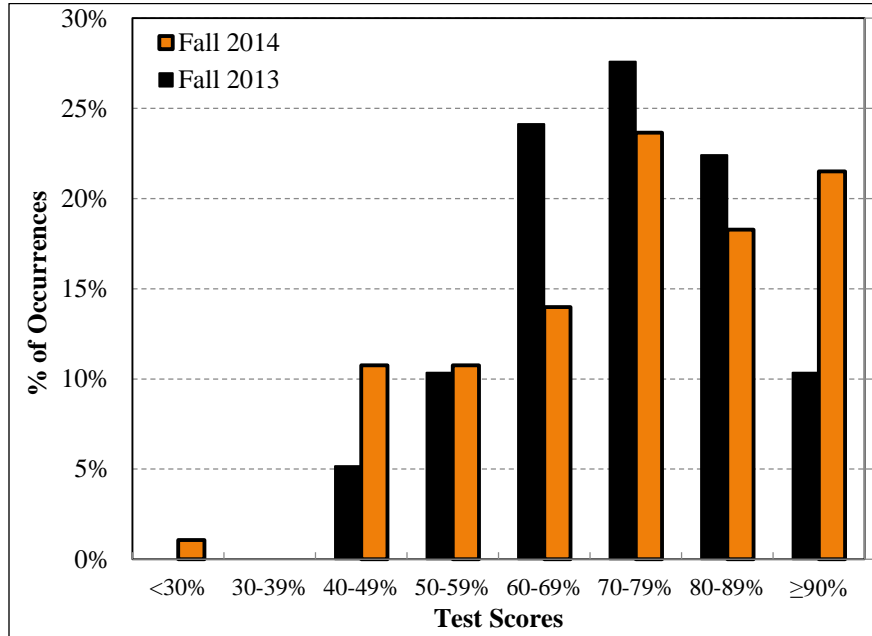


Figure 20. Histogram of SPN1120 Combined (Overall) scores comparing Fall 2013 (black) with Fall 2014 (orange).

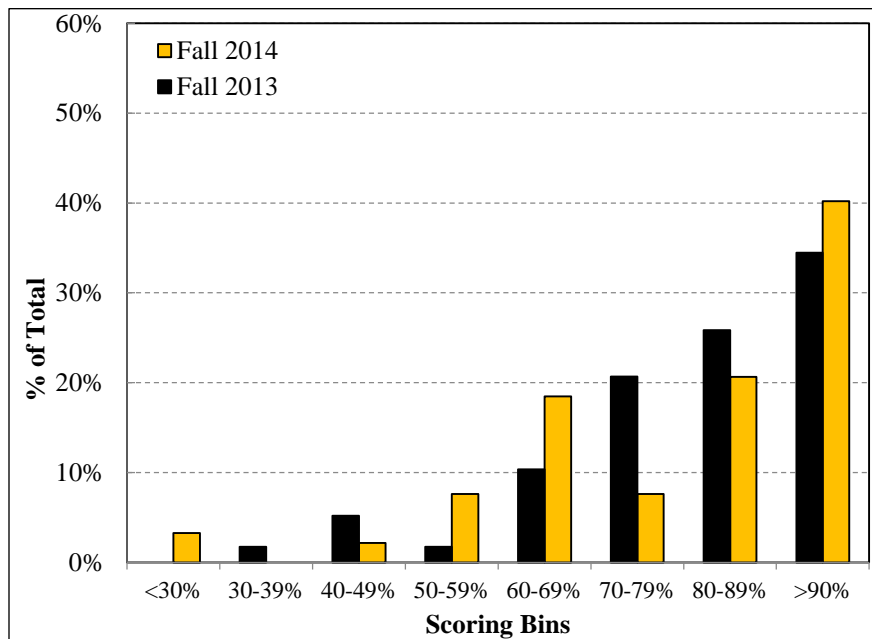


Figure 21. Histogram of SPN1120 Section I scores comparing Fall 2013 (black) with Fall 2014 (orange).

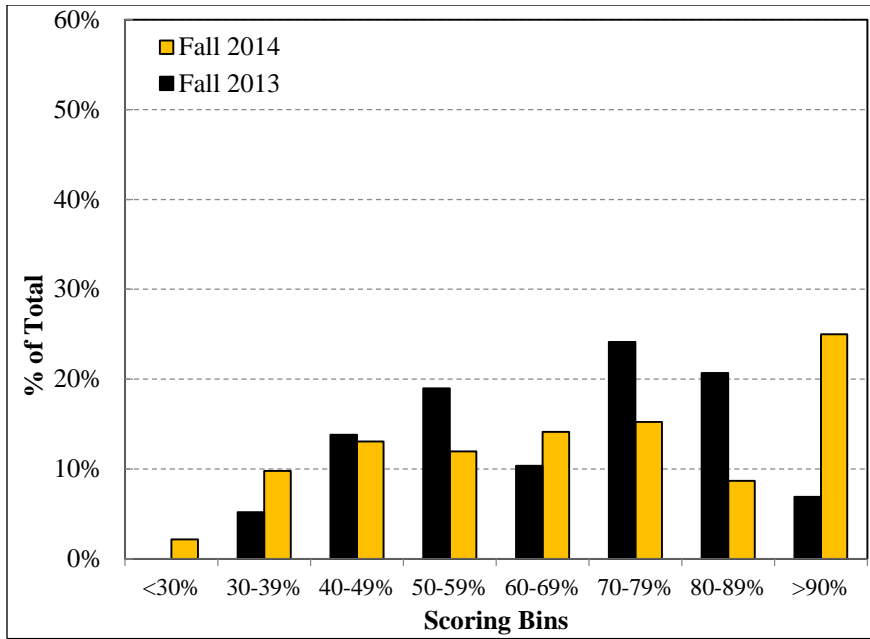


Figure 22. Histogram of SPN1120 Section II scores comparing Fall 2013 (black) with Fall 2014 (orange).

Section I data for Fall 2014 show the formation of a slight bimodality when compared with Fall 2013 (see Figure 21). The wide distribution of Section II noted earlier is common in both Fall 2013 and Fall 2014 artifacts. The remaining sections exhibit similar distribution curves to the previous academic year. In all sections there is an increase in the percentage of artifacts scored  $\geq 90$ .

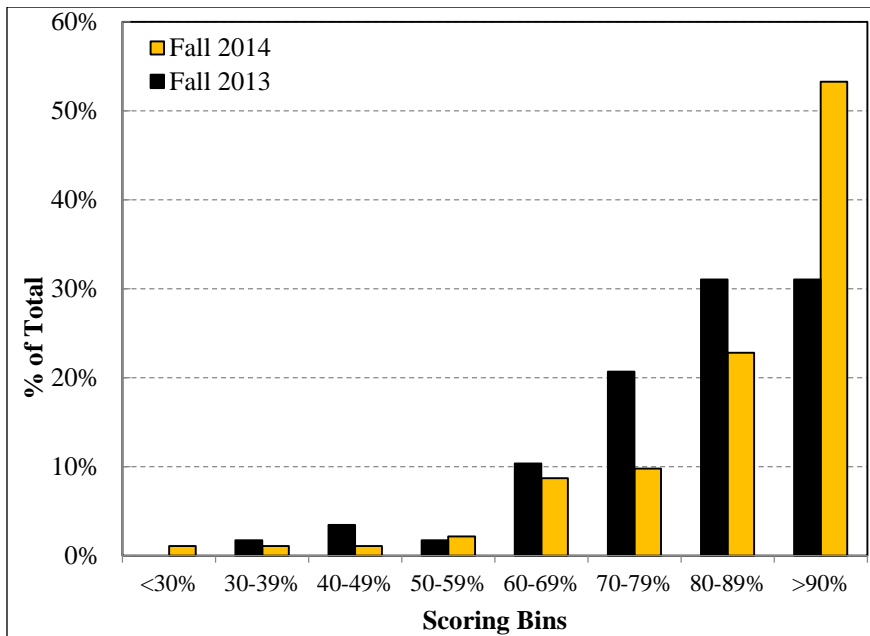


Figure 23. Histogram of SPN1120 Section III scores comparing Fall 2013 (black) with Fall 2014 (orange).

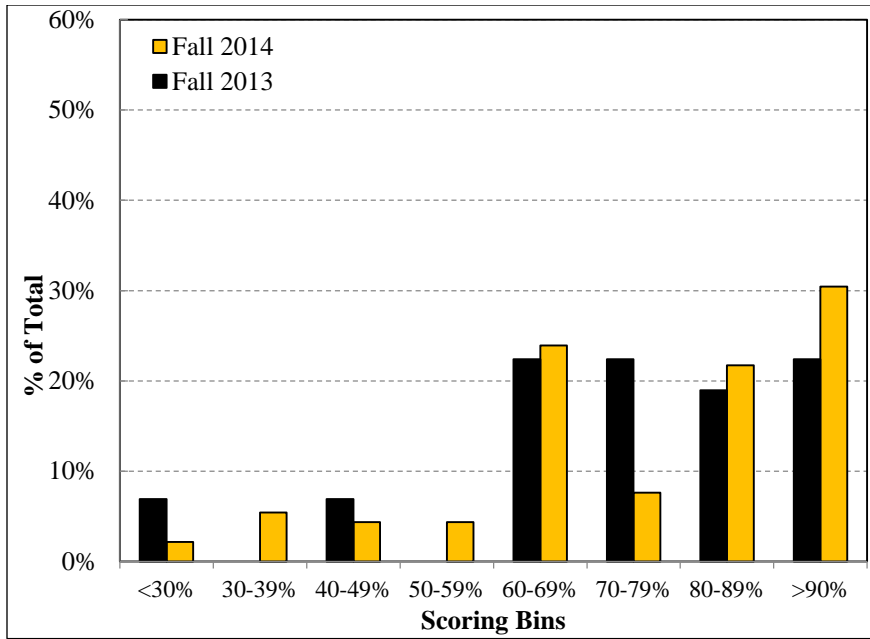


Figure 24. Histogram of SPN1120 Section IV scores comparing Fall 2013 (black) with Fall 2014 (orange).

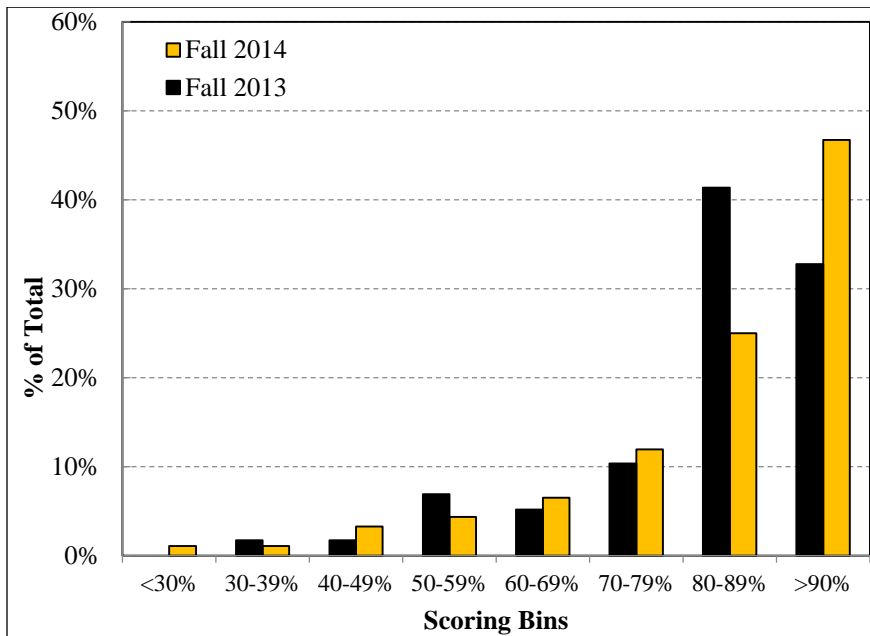


Figure 25. Histogram of SPN1120 Section V scores comparing Fall 2013 (black) with Fall 2014 (orange).

A comparison of mean scores for each exam section by semester is reported in Table 8. 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). When comparing fall-to-fall, all sections show improvement from Fall 2013 to Fall 2014 with the exception of Section I, which shows a 0.3 drop in mean score. The improvement in Section III, when tested using a Welch's t-test according to standard methods (Davis, 1973; de Winter 2013; McDonald, 2009; Wilkinson, 1999), was found to be statistically significantly different ( $t(149)=2.208, p=0.029$ ) with an effect size of 0.36.

	<i>Section Max</i>	<b>Fall 2013 n=58</b>	<b>Spring 2014 n=90</b>	<b>Fall 2014 n=93</b>
<b>Section I (Oral)</b>	15	12.1	12.4	11.8
<b>Section II (Reading)</b>	60	40.4	45.1	40.5
<b>Section III (Reading)</b>	15	12.0	13.2	<b>12.8</b>
<b>Section IV (Written)</b>	15	10.6	11.7	11.1
<b>Section V (Written)</b>	20	16.2	16.8	16.5
<b>Combined (Overall)</b>	125	91.3	99.2	92.8

Table 8. Comparison of mean scores for SPN1120 for Fall 2013 through Fall 2014. Bold denotes statistically significant differences from Fall 2013 to Fall 2014.

### 3.2.2 SPN1121

The SPN1121 Beginning Spanish II course was offered in only traditional format. No online courses were held. Additionally, only two artifacts originated from Dual Enrollment (DE) students. As a result, not significance testing or reasonable comparison could be made between the two cohorts. Finally, SPN1121 was offered only on the Thomas Edison (Lee) campus across three sections.

#### 3.2.2.1 Comparison by Site, Format, or Student Type

##### 3.2.2.1.1 Dual Enrollment to non-Dual Enrollment Comparison

No dual enrollment students were enrolled during Fall 2014 so no comparison study between the two could be completed.

##### 3.2.2.1.2 Online to Traditional Comparison

No online sections of the course were run during Fall 2014 so no comparison study between online and traditional could be completed.

##### 3.2.2.1.3 Comparison by Campus/Site

Only three sections of SPN1121 were run during Fall 2014 and all were run on the Thomas Edison (Lee) campus so no cross site comparison could be completed.

#### 3.2.2.2 Data Distribution (& Longitudinal Study)

A histogram depicting the distribution of scores across each exam section as well as overall (combined) score is shown in Figure 26. Sections V, VI, and VII exhibit S-curves typical of sectional score distribution with the mode centered on the highest scoring bin. The remaining sections exhibit a mode centered on the 80-89 scoring bin. Moreover, Section IV exhibits a secondary mode centered on the 50-59 scoring bin.

Since SPN1121 has only 25 artifacts a binary raster image would not be helpful in describing the behavior of exam sections by overall score. However, as with SPN1120, a series of histograms comparing Fall 2014 data with Fall 2013 data for Overall (Combined) scores along with each exam section (Sections I-VII) are shown in Figures 27 through 34. Overall scores exhibit substantial improvement from year-to-year. The percentage of artifacts scoring  $\geq 80$  more than doubled from year-to-year from 30% in Fall 2013 to 54% in Fall 2014.

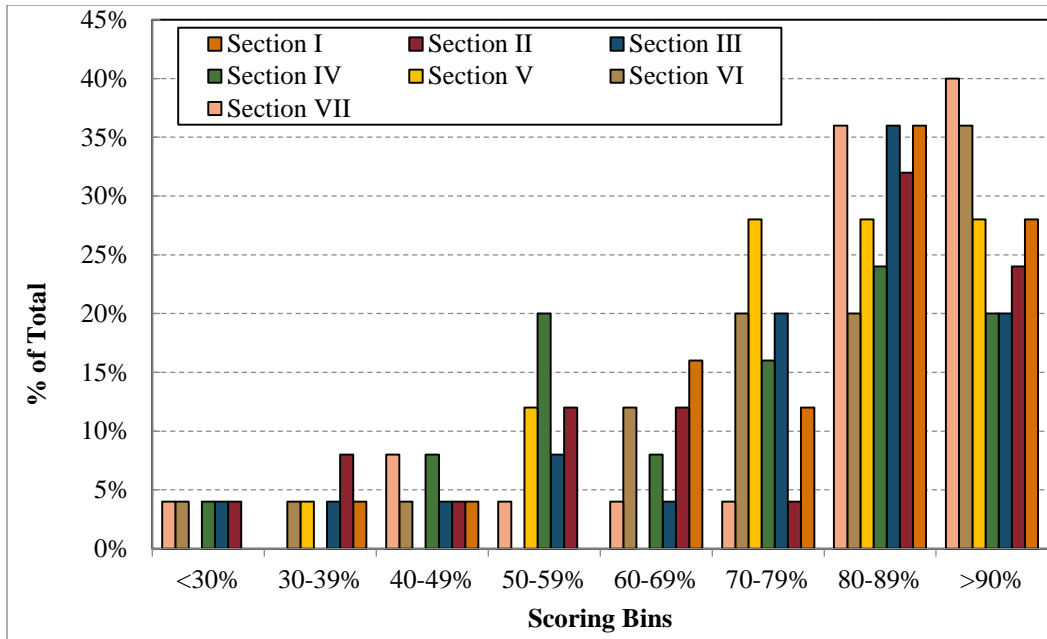


Figure 26. Histogram of SPN1121 exam sections and combined (overall) score for Fall 2014.

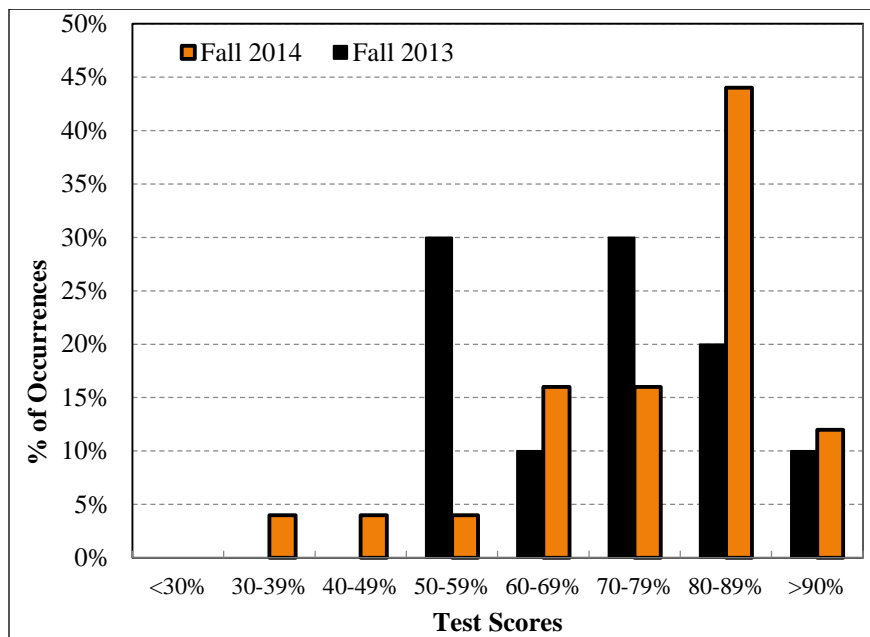


Figure 27. Histogram of SPN1121 Combined (Overall) scores comparing Fall 2013 (black) with Fall 2014 (orange).

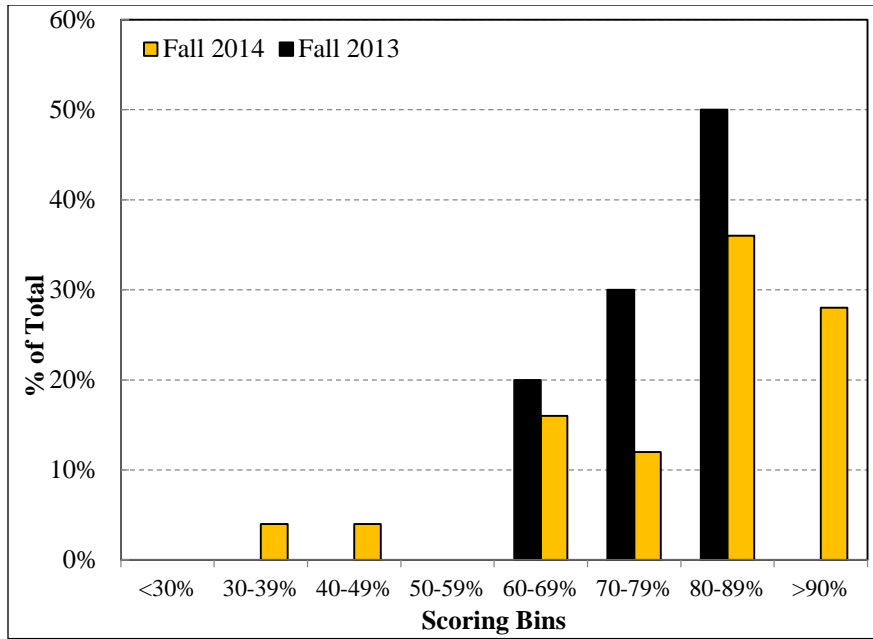


Figure 28. Histogram of SPN1121 Section I scores comparing Fall 2013 (black) with Fall 2014 (orange).

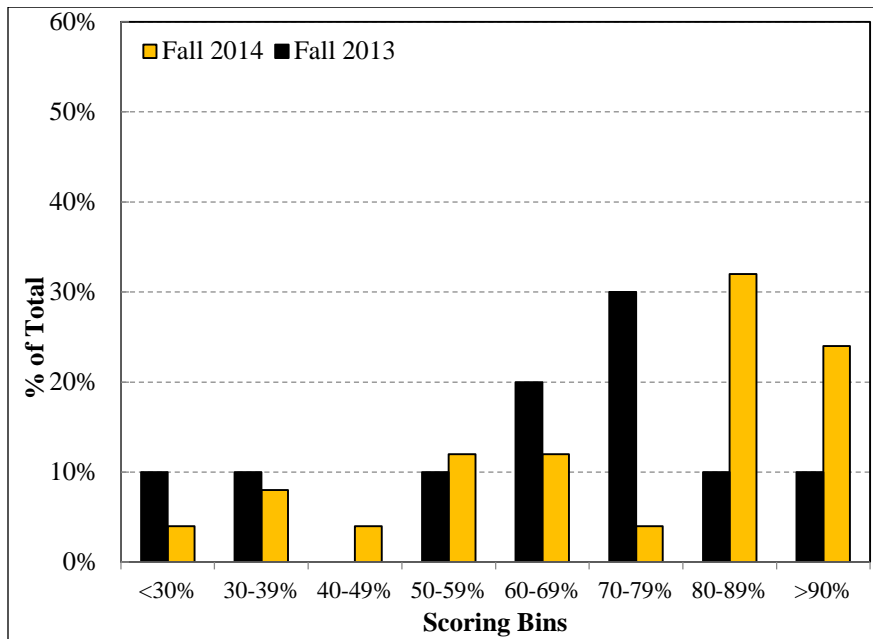


Figure 29. Histogram of SPN1121 Section II scores comparing Fall 2013 (black) with Fall 2014 (orange).

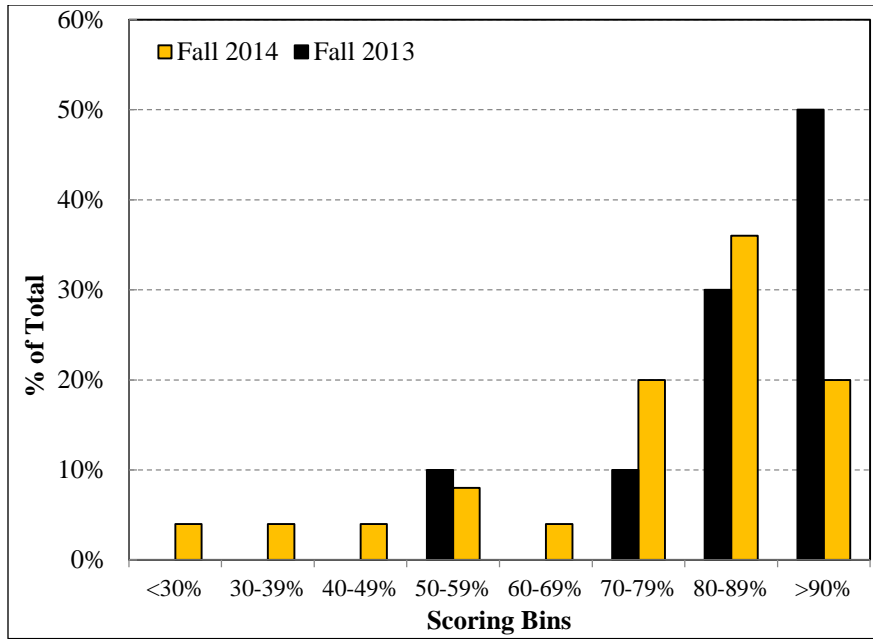


Figure 30. Histogram of SPN1121 Section III scores comparing Fall 2013 (black) with Fall 2014 (orange).

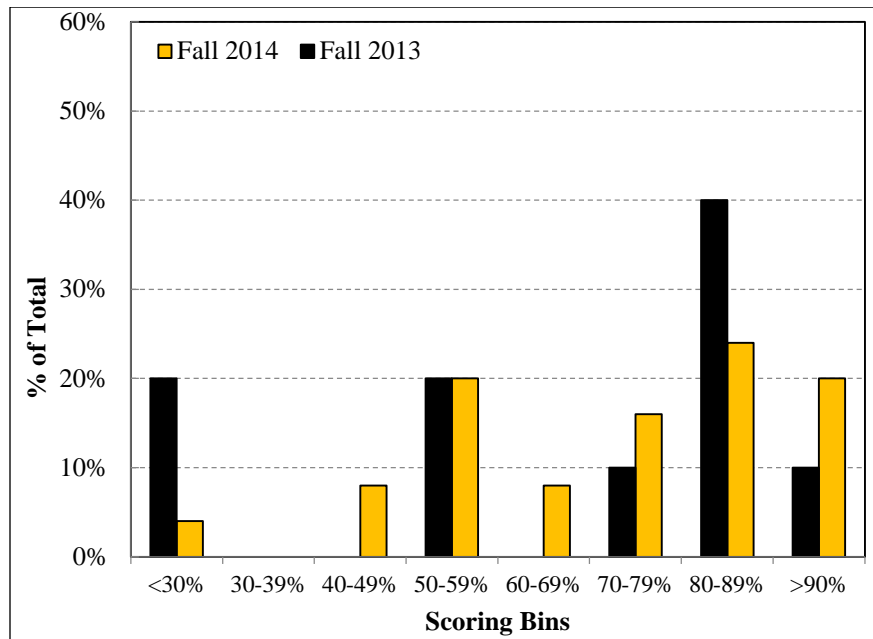


Figure 31. Histogram of SPN1121 Section IV scores comparing Fall 2013 (black) with Fall 2014 (orange).



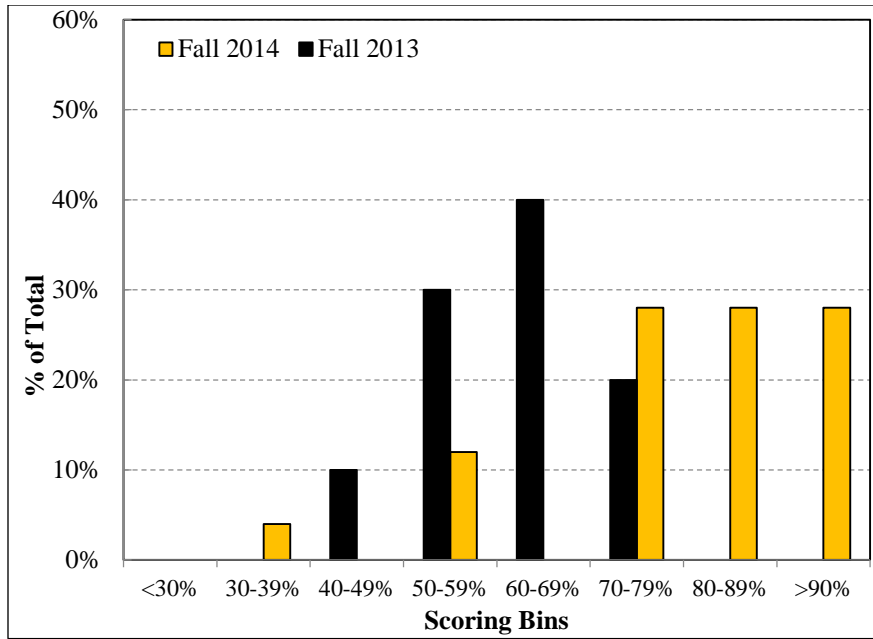


Figure 32. Histogram of SPN1121 Section V scores comparing Fall 2013 (black) with Fall 2014 (orange).

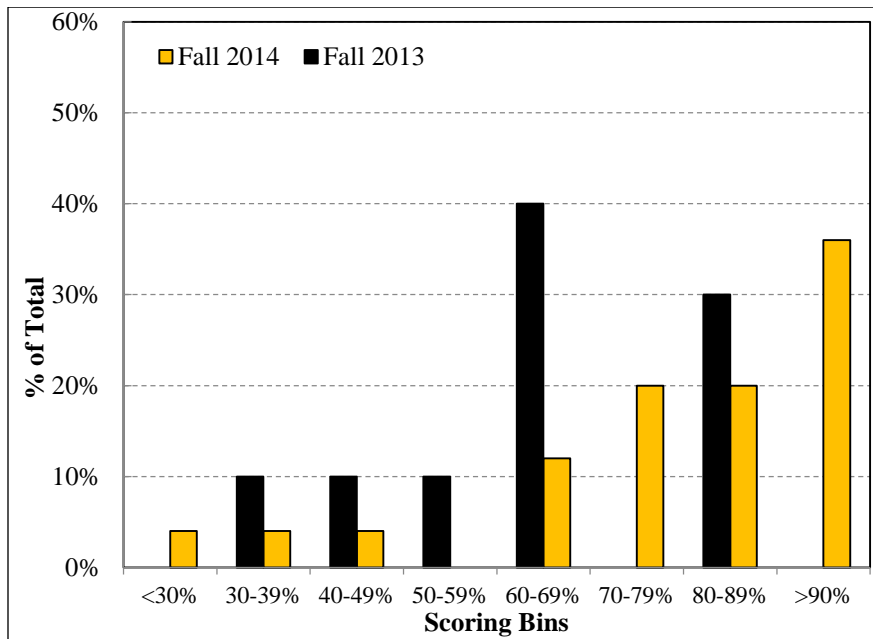


Figure 33. Histogram of SPN1121 Section VI scores comparing Fall 2013 (black) with Fall 2014 (orange).

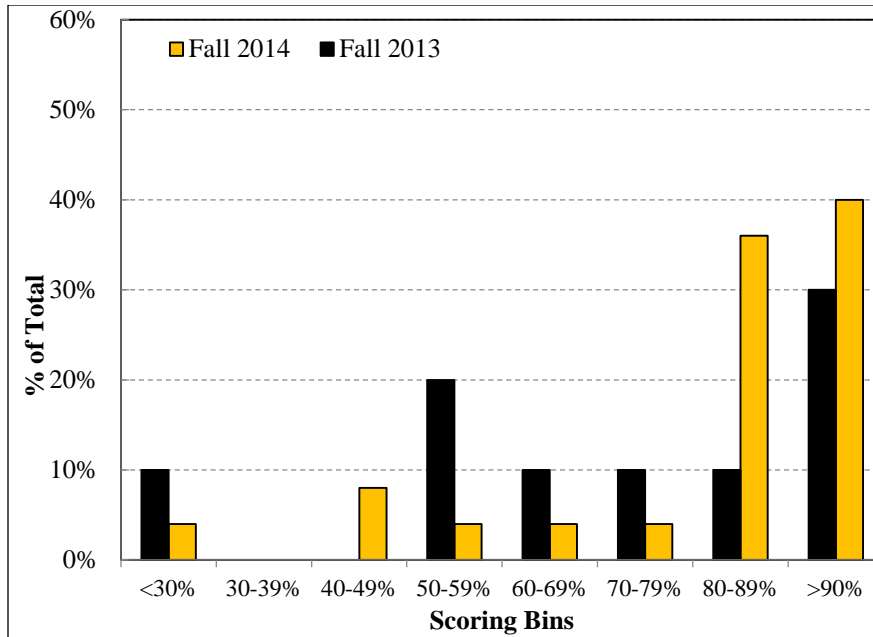


Figure 34. Histogram of SPN1121 Section VII scores comparing Fall 2013 (black) with Fall 2014 (orange).

In six of seven sections, Section I, II, IV, V, VI, and VII, data for Fall 2014 show a marked positive shift (negative skew) of the data when compared with Fall 2013 (see Figures 28, 29, 31-34). Section III is the only exam section in which scores declined from Fall 2013 to Fall 2014. The percentage of artifacts scoring 70% or higher decreased from 90% to 76%. This decline is more noticeable when comparing higher scores (bins 80-80 and  $\geq 90$ ) in which the decline is from 80% to 56%.

A comparison of mean scores for each exam section by semester is reported in Table 9. 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). When comparing fall-to-fall, all sections show improvement from Fall 2013 to Fall 2014 with the exception of Section III, which shows a 4.2 drop in mean score. The decline in Section III and improvement in Section V, when tested using a Welch's t-test according to standard methods (Davis, 1973; de Winter 2013; McDonald, 2009; Wilkinson, 1999), were found to be statistically significantly different (Section III:  $t(33)=-1.899$ ,  $p=0.070$ ; Section V:  $t(33)=3.548$ ,  $p=0.001$ ) with effect sizes of 0.66 and 0.67, respectively.

	<i>Section Max</i>	<b>Fall 2013</b> n=10	<b>Spring 2014</b> n=115	<b>Fall 2014</b> n=25
<b>Section I (Oral)</b>	15	11.5	12.3	11.9
<b>Section II (Reading)</b>	15	9.5	9.6	10.7
<b>Section III (Read/Write)</b>	40	34.2	32.3	<b>30.0</b>
<b>Section IV (Read/Write)</b>	15	9.5	11.4	10.6
<b>Section V (Writing)</b>	12	7.5	5.7	<b>9.5</b>
<b>Section VI (Reading)</b>	15	9.6	10.3	11.6
<b>Section VII (Writing)</b>	20	14.2	15.4	16.1
<b>Combined (Overall)</b>	128	96.0	97.0	100.5

Table 9. Comparison of mean scores for SPN1121 for Fall 2013 through Fall 2014. Bold denotes statistically significant differences from Fall 2013 to Fall 2014. Red denotes decrease from Fall 2013 to Fall 2014.

## 4 CONCLUSIONS

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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 2014 assessment.

### 4.1 FRENCH

A drilldown of FRE1120 results are as follows:

1. Achievement of 80% of artifacts scoring 70% or better (SLO1): Achievement was not analyzed in this report as a new section to be included in assessment was in development during the Fall 2014 semester.
2. Achievement of 80% of artifacts scoring 70% or better (SLO2): Achievement goal was met as results exhibit 84.6% of artifacts score 70% or higher in the reading competency section (Section X) of the exam.
3. Achievement of 80% of artifacts scoring 70% or better (SLO3): Achievement goal was met as results exhibit 94.9% of artifacts score 70% or higher in the writing effectiveness section (Section I) of the exam.
4. In a complete study of all sections of the assessment exam, Section III and IX, at 64.1% and 46.4% achieving 70% or greater, are the lowest scoring sections.
5. No comparisons of dual enrollment to non-dual enrollment students could be made because only two dual enrollments students were registered during the Fall 2014 semester and statistical comparisons would not be reliable or meet criteria for significance (de Winter, 2013).
6. No comparison of online to traditional sections could be made because no online sections were offered.
7. No campus/site comparison could be made because all sections were run on the Thomas Edison (Lee) campus.
8. In a comparison of exam sections by scoring distribution, all sections exhibit S-curves where the largest percentages of artifacts occur in the highest scoring bins with progressively smaller percentages in lower scoring bins, a trait that is normal for a multi-section exam.
9. In the same study, sections III, VIII, IX and X, exhibit increased percentages of artifacts in the lower scoring bins compared with other sections.
10. In a study comparing Fall 2014 achievement with Fall 2013, overall scores exhibit no discernable trend towards improvement from year-to-year.
11. In a similar year-to-year comparison study for each assessment exam section, Sections II, VI, VII, VIII, and X data for Fall 2014 show the improvement when compared with Fall 2013 with all exhibiting an increase in the percentage of artifacts scored  $\geq 90$  and a general shift in distribution towards higher scores.
12. In the same study, Section III exhibits the greatest declines when compared with Fall 2013 with artifacts scoring below 70% increasing from 18% to 40% from Fall 2013 to Fall 2014.

Below is a drilldown of the FRE1121 assessment results:

1. Achievement of 80% of artifacts scoring 70% or better (SLO1): Achievement was not analyzed in this report as a new section to be included in assessment was in development during the Fall 2014 semester.
2. Achievement of 80% of artifacts scoring 70% or better (SLO2): Achievement goal was met as results exhibit 100% of artifacts score 70% or higher in the reading competency section (Section XI) of the exam.
3. Achievement of 80% of artifacts scoring 70% or better (SLO3): Achievement goal was met as results exhibit 80.0% of artifacts score 70% or higher in the writing effectiveness section (Section I) of the exam.
4. In a complete study of all sections of the assessment exam, Sections III, V, VIII and X, at 40.0%, 10.0%, 40.0%, and 40.0% achieving 70% or greater, are the lowest scoring sections.
5. No dual enrollment students were enrolled during Fall 2014 so no comparison study between the two could be completed.
6. Only four online artifacts of the course were collected during Fall 2014 so no comparison study between online and traditional could be completed.
7. Only one section of FRE1121 was run during Fall 2014 so no cross site comparison could be completed.
8. The exam for FRE1121 has changed since the previous year and so year-to-year comparison is not relevant.

## 4.2 SPANISH

A drilldown of SPN1120 results are as follows:

1. Achievement of 80% of artifacts scoring 70% or better (SLO1): Achievement was not met as results exhibit only 68.8% of artifacts score 70% or higher in the oral competency exam section (Section I).
2. Achievement of 80% of artifacts scoring 70% or better (SLO2): Achievement was not met as results exhibit 48.4% of artifacts scored 70% or higher in the first reading section, Section II and 86.0% of artifacts scored 70% or higher in the second reading section, Section III.
3. Achievement of 80% of artifacts scoring 70% or better (SLO3): Achievement was partially met as results exhibit 59.1% of artifacts scored 70% or higher in the first writing section, Section IV, and 83.9% of artifacts scored 70% or higher in the second writing section, Section V.
4. In a comparison of dual enrollment to non-dual enrollment artifacts there is no statistically significant difference between the groups in any exam section or the overall combined score.
5. In a cross-campus comparison, the Charlotte campus is consistently lower than the other two sites in all sections and substantially so in Section II. Results of an ANOVA performed on the means exhibit a statistically significant difference between sites for all sections and combined score which is the result of consistently lower achievement on the Charlotte Campus.
6. In a comparison of exam sections by scoring distribution, Sections I, III, and V exhibit S-curves where the largest percentages of artifacts occur in the highest scoring bins with progressively smaller percentages in lower scoring bins, a trait that is normal for a multi-section exam.
7. In the same study, the S-curve distribution for Section II is far less pronounced with ample percentages of artifacts falling in the lower scoring bins.

8. Also in the same study, Section IV exhibits a bimodal distribution with peaks in the  $\geq 90$  and 60-69 scoring bins.
9. In a study comparing Fall 2014 achievement with Fall 2013, overall scores exhibit substantial improvement from year-to-year with the percentage of artifacts scoring  $\geq 90$  more than doubled from year-to-year from 10% in Fall 2013 to 22% in Fall 2014.
10. In a similar year-to-year comparison study for each assessment exam section, Sections I data for Fall 2014 show the formation of a slight bimodality when compared with Fall 2013.
11. In the same study, in all sections there is an increase in the percentage of artifacts scored  $\geq 90$ .
12. In a study comparing mean scores for each exam section by semester, all sections show improvement from Fall 2013 to Fall 2014 with the exception of Section I, which shows a 0.3 drop in mean score. Of those sections showing improvement, Section III is statistically significantly different.
13. In a study comparing success at individual exam sections based on overall scores, Section V exhibits the highest mean scores among the lowest overall scores at 65% where other sections at the same overall score exhibit mean scores ranging from 23% to 44%.
14. In the same study, Section II exhibits the lowest mean scores among overall scores ranging from 60-79%. By example, overall scores in the 70-74% range exhibit a mean score of 59% for Section II where other sections range from 72-87%.

A drilldown of SPN1121 results are as follows:

1. Achievement of 80% of artifacts scoring 70% or better (SLO1): Achievement was nearly met as results exhibit 76.0% of artifacts score 70% or higher in the oral competency exam section (Section I).
2. Achievement of 80% of artifacts scoring 70% or better (SLO2): Achievement was not met in the reading only sections as results exhibit 60.0% of artifacts scored 70% or higher in Section II and 76.0% of artifacts scored 70% or higher in Section VI.
3. Achievement of 80% of artifacts scoring 70% or better (SLO3): Achievement was met in the writing only sections as results exhibit 84.0% of artifacts scored 70% or higher in Section V and 80.0% of artifacts scored 70% or higher in Section VII.
4. No dual enrollment students were enrolled during Fall 2014 so no comparison study between the two could be completed.
5. No online sections of the course were run during Fall 2014 so no comparison study between online and traditional could be completed.
6. Only three sections of SPN1121 were run during Fall 2014 and all were run on the Thomas Edison (Lee) campus so no cross site comparison could be completed.
7. In a comparison of exam sections by scoring distribution, Sections V, VI, and VII exhibit S-curves typical of sectional score distribution with the mode centered on the highest scoring bin with progressively smaller percentages in lower scoring bins, a trait that is normal for a multi-section exam.
8. In the same study, Section IV exhibits a secondary mode centered on the 50-59 scoring bin.
9. In a study comparing Fall 2014 achievement with Fall 2013, overall scores exhibit substantial improvement from year-to-year with the percentage of artifacts scoring  $\geq 80$  more than doubled from year-to-year from 30% in Fall 2013 to 54% in Fall 2014.

10. In a similar year-to-year comparison study for each assessment exam section, six of seven sections, Section I, II, IV, V, VI, and VII, data for Fall 2014 show a marked positive shift (negative skew) of the data when compared with Fall 2013.
11. In the same study, Section III is the only exam section in which scores declined from Fall 2013 to Fall 2014 with a percentage of artifacts scoring 70% or higher decreased from 90% to 76%.
12. In a study comparing mean scores for each exam section by semester, all sections show improvement from Fall 2013 to Fall 2014 with the exception of Section III, which shows a 4.2 drop in mean score.
13. In that same study, the decline from Fall 2013 to Fall 2014 in Section III and the improvement in Section V were found to be statistically significant.

## 5 REFERENCES

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- Cohen, J. 1988. *Statistical power analysis for the behavioral sciences* (2<sup>nd</sup> 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.
- de Winter, J.C.F. 2013. Using the Student's T-Test with Extremely Small Sample Sizes. *Practical Assessment, Research, and Evaluation*, 18(10), 1-12.
- Hall, J.C. 2010. *Doing More with Less: Making Colleges Work Better*. Springer, New York, New York, 250 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* (2<sup>nd</sup> ed.). Sparky House Publishing, Baltimore, Maryland.
- Rosenthal, R. and Rosnow, R.L. 1991. *Essentials of behavioral research: Methods and data analysis* (2<sup>nd</sup> 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.