# Developmental Achievement \& Student Satisfaction Reports <br> Summer 2016 <br> Author: Joseph F. van Gaalen, Ph.D., Director, Academic Affairs Assessment 

Florida SouthWestern State College's assessment measures for the Senate Bill 1720 plan include a collection of achievement data to determine the efficacy of the developmental options and to inform course and program improvement. Additionally, FSW tracks satisfaction of current developmental courses through a survey administered at the end of each term. The data is in support of assessment measures for the SB1720 plan to determine efficacy of developmental options and to inform course and program improvement. What follows is the assembly of achievement and student satisfaction reports for each of the developmental courses (ENC 0022, REA 0019, MAT 0057, and MAT 0058).

The faculty for ENC 0022 Writing for College Success reviewed achievement to determine if there is any significant difference across developmental strategies (Compressed and Modularized).

The faculty for MAT 0057 Mathematics for College Success reviewed achievement to determine if there is any significant difference across developmental strategies (Compressed and Modularized).

The faculty for MAT 0058 Mathematics for College Success reviewed achievement to determine if there is any significant difference across developmental strategies (Compressed and Modularized).

The faculty for REA 0019 Reading for College Success use a defined course outcome in AY 2015-2016 that students will read at a post-secondary level that correlates with college success by the completion of the Developmental Reading sequence. Faculty established 1) a goal of the mean score difference (pre-/post) test of the course mastery exam will improve significantly college wide, 2 ) a goal of the mean score difference (pre-/post) of the course mastery exam will improve significantly across developmental strategies (Compressed, Contextualized, and Modularized), and 3) that $80 \%$ of REA 0019 completers will pass the course mastery exam for reading and complete the course with a ' C ' or better.

* Section 1: ENC 0022 Common Course Assessment Report (includes ENC 1101 \& 1102)
* Section 2: ENC 0022 Final Exam Assessment Report
* Section 3: ENC 0022 Survey Results Report
* Section 4: MAT 0057 Final Exam Assessment Report
* Section 5: MAT 0058 Final Exam Assessment Report
* Section 6: MAT 0057/0058 Survey Results Report
* Section 7: REA 0019 Final Exam Assessment Report
* Section 8: REA 0019 Survey Results Report

Section 1

## English Assessment Report - Summer 2016

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## 1 INTRODUCTION

Fall 2014 marked the beginning of a new assessment plan for the English Department of Florida SouthWestern State College (FSW) in three courses: ENC 0022 Writing for College Success, ENC 1101 Composition I, and ENC 1102 Composition II. For summer 2016, assessment will include ENC 0022 while both ENC 1101 and ENC 1102 undergo departmental discussions based on the results of fall 2015 assessment before data collection resumes during the fall term. The planned assessment practice for ENC 0022 continues in summer 2016 in which instructors use a common rubric with seven identified rubric dimensions using data collected from all course sections for ENC 0022 are assessed. Baselines set in place following fall 2014 analysis and discussion will serve as a correlative measure for supporting assessment driven instruction going forward (Cole et al., 2011; Elder and Paul, 2007).

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

## 2 ENC 0022

### 2.1 Learning Objectives \& Descriptive Statistics

Using common rubric criterion as an assessment method, the FSW English faculty defined multiple areas of interest for evaluation based on core outcomes for the course. Those outcomes include:
> Plan and write paragraphs and essays reflecting styles and tones appropriate for their audience and use adequate support, coherence, and unity that demonstrate understanding of content for expository and persuasive purposes.
$>$ Establish a substantive claim, link claims to relevant evidence, and acknowledge competing arguments, gather information needed, and accurately incorporate source material into their own writing to avoid plagiarism.
$>$ Identify and correctly use proper conventions for sentence grammar and avoid illogical shifts in pronouns and verbs in their own writing and on tests.
> Identify and use proper conventions for spelling, capitalization, and punctuation in their own writing and on tests.
> Identify and correctly use the conventions of a variety of sentence structures and will be able to avoid sentence fragments, comma splices, and fused sentences in their own writing and on tests.
> Identify and write effective topic sentences and thesis statements that address task and audience and use logical structure, support, and transitional devices for expository and persuasive purposes.

### 2.1.1 Learning Objectives

ENC 0022 is scored using a rubric with seven dimensions: Introductory Paragraph, Support Paragraphs, Organization, Concluding Paragraph, Grammar, Mechanics, and Research. Each dimension is scored on
a scale of 1 to 4 (1-Unacceptable, 2-Needs work, 3-Average, 4-Above average), with 0s if the baseline of 'Unacceptable' is not met. The English department has identified a target statistic for measurement purposes (SLO1) of measuring the percentage of artifacts scoring a 2 or greater.

For the summer 2016 assessment, 30 artifacts were collected for ENC 0022 from 3 of 3 course sections. The lowest scoring rubric dimension for percentage of artifacts scoring a 2 or greater is Grammar at 93\%. By comparison, the lowest in summer 2015 was Concluding Paragraph with $79 \%$. For spring 2016 it was Research with $87 \%$. All other dimensions exhibit percentage of $93 \%$ or higher (Table 1). For a visual comparison of scores by dimension, see Figure 1.

| Rubric <br> Score | Introductory <br> Paragraph | Support <br> Paragraphs | Organization | Concluding <br> Paragraph | Grammar | Mechanics | Research |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Developing <br> or higher | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $93 \%$ | $93 \%$ |  |
| 4 | $43 \%$ | $53 \%$ | $43 \%$ | $33 \%$ | $10 \%$ | $17 \%$ | $47 \%$ |
| 3 | $50 \%$ | $43 \%$ | $53 \%$ | $53 \%$ | $53 \%$ | $53 \%$ | $33 \%$ |
| 2 | $7 \%$ | $3 \%$ | $3 \%$ | $13 \%$ | $30 \%$ | $23 \%$ | $17 \%$ |
| 1 | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $7 \%$ | $7 \%$ | $3 \%$ |
| 0 | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ |

Table 1. Percentage of student achievement level by rubric dimension (includes percentage of students scoring in developmental level or higher as per SLO) for ENC 0022.


Figure 1. ENC 0022 distribution of rubric scores by dimension.

### 2.1.2 Descriptive Statistics \& Longitudinal Studies

Descriptive statistics for ENC 0022 artifacts can be found in Table 2. A histogram of artifact scores for all 30 artifacts is shown in Figure 2. Distribution of artifact scores is centered on 27/28, and is negatively skewed, meaning scores are shifted towards the higher range.

Under normal conditions, to describe the behavior of the rubric dimensions based on overall achievement, a color map, or binary raster image, is created by calculating the mean scores for each
dimension as a function of combined score. However, sample size $(\mathrm{n}=30)$ is too limited to create a plot with any meaningful interpretive value.

|  | Introductory <br> Paragraph | Support <br> Paragraphs | Organization | Concluding <br> Paragraph | Grammar | Mechanics | Research | TOTAL |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| n | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Max | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 28 |
| Min | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 15 |
| Median | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 22.5 |
| Mode | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 27 |
| Mean | 3.4 | 3.5 | 3.4 | 3.2 | 2.7 | 2.8 | 3.2 | 22.2 |
| Standard | 0.61 | 0.57 | 0.56 | 0.66 | 0.76 | 0.81 | 0.86 | 3.93 |
| deviation | -0.40 | -0.59 | -0.20 | -0.24 | -0.36 | -0.46 | -0.84 | -0.27 |
| Skewness | -0.57 | -0.62 | -0.84 | -0.63 | 0.12 | 0.12 | -0.11 | -1.09 |

Table 2. Descriptive statistics for ENC 0022 common course assessment.


Figure 2. Overall score distribution for ENC 0022 artifacts (summer 2016 term).
A comparison of summer 2016 mean scores with past results is shown in Figure 3 below. Note that comparison of differing terms (fall-to-spring or spring-to-summer) is less useful as assessment reports across multiple course level and program level assessments at FSW typically exhibit substantial differences from differing term and are most effectively interpreted when comparing like terms such as fall-to-fall terms and spring-to-spring terms (see http://www.fsw.edu/facultystaff/assessment/history for examples). When comparing summer 2016 with summer 2015, mean scores for rubric dimensions is up in all areas except Grammar (down from 2.8 to 2.7).


Figure 3. Comparison of mean scores for ENC 0022 through time beginning fall 2014 (light teal), spring 2015 (light purple), summer 2015 (light gray), fall 2015 (dark teal), spring 2016 (dark purple), and summer 2016 (dark gray).

### 2.2 Comparisons by Site, Format, and Student Type

### 2.2.1 Dual Enrollment to non-Dual Enrollment Comparison

ENC 0022 is not offered as a dual enrollment (offsite) course nor is it offered to dual enrollment students onsite and so no comparison study between dual enrollment artifacts and traditional artifacts can be made.

### 2.2.2 Online to Traditional Comparison

ENC 0022 is not offered as an online course and so no comparison study between online artifacts and traditional artifacts can be made.

### 2.2.3 Comparison by Site/Campus

All sections of the course for summer 2016 were offered on the Thomas Edison (Lee) campus. As a result, no comparison between sites could be made.

### 2.2.4 Mini-term to Full-term Comparison

ENC 0022 was not offered as a mini-term course and so no comparison study between mini-term artifacts and full-term artifacts can be made.

## 3 ENC 1101

Course assessment for ENC 1101 follows a procedure of data collection in fall term only followed by departmental discussions in spring.

## 4 ENC1102

Course assessment for ENC 1102 follows a procedure of data collection in fall term only followed by departmental discussions in spring.

## 5 CONCLUSIONS

FSW's English Department assessment plan includes three courses: ENC 0022 Writing for College Success, ENC 1101 Composition I, and ENC 1102 Composition II. For summer 2016, assessment will include ENC 0022 while both ENC 1101 and ENC 1102 undergo departmental discussions based on the results of fall 2015 assessment before data collection resumes during the fall term. The department has historically used a benchmark of percentage of students scoring 2 or higher in rubric dimensions as a means to measure achievement in the courses.

A drilldown of ENC 0022 results are as follows:

1. All seven rubric dimensions had $>92 \%$ achievement at level 2 or higher. The lowest dimension was Grammar (93\%).
2. Distribution of artifact scores is centered on $27 / 28$, and is negatively skewed, meaning scores are shifted towards the higher range.
3. No study comparing rubric achievement based on overall score could be completed due to limited sample size ( $\mathrm{n}=30$ ).
4. In a longitudinal study, results exhibit improvement across all areas from summer 2016 to summer 2015 except Grammar (down from 2.8 to 2.7).
5. No comparison of dual enrollment to traditional artifacts was completed because no dual enrollment sections of the course were offered.
6. No comparison of online to traditional artifacts was completed because no online sections of the course were offered.
7. No comparison between sites could be made because all sections of the course for summer 2016 were offered on the Thomas Edison (Lee) campus.
8. No comparison of mini-term artifacts and full-term artifacts was completed because no miniterm sections of the course were offered.

No drilldown of results for ENC 1101 is reported because the course follows a procedure of data collection in fall term only followed by departmental discussions in spring. Therefore, no results or analysis is reported here.

No drilldown of results for ENC 1102 is reported because the course follows a procedure of data collection in fall term only followed by departmental discussions in spring. Therefore, no results or analysis is reported here.

## 6 References

Brown, M.B., Forsythe, A.B. 1974. The small sample behavior of some statistics which test the equality of several means. Technometrics, 16(1), 129-132.

Cole, R., Haimson, J., Perez-Johnson, I., and May, H. 2011. Variability in Pretest-Posttest Correlation Coefficients by Student Achievement Level. NCEE Reference Report 2011-4033. Washington, DC: National Center for Education Evaluation and Regional Assistance, U.S. Department of Education.

Elder, L, and Paul, R. 2007. Consequential Validity: Using Assessment to Drive Instruction. In: Foundation For Critical Thinking. Retrieved from http://www.criticalthinking.org/pages/consequential-validity-using-assessment-to-drive-instruction/790.

Section 2

Florida SouthWestern State College's assessment measures for the Senate Bill 1720 plan include a collection of achievement data to determine the efficacy of the developmental options and to inform course and program improvement. The FSW English Department uses a two-section final exam (written and objective) to test mastery of the subject in ENC 0022 Writing for College Success. The following report details the results for the final exam for ENC 0022 for the summer 2016 term.

The written section of the ENC 0022 final exam, worth $50 \%$ of the overall exam grade, is comprised of six rubric dimensions. They are Main Idea / Topic Sentence, Organization, Detail Sentences, Grammar, Mechanics / Spelling, and Concluding Sentence. Each is scored on a 4-point rubric (4-Above Average, 3Average, 2-Needs Work, 1-Unacceptable). Artifacts from 34 students were reported for summer 2016 with 3 of 3 sections reporting objective sections and 3 of 3 reporting written sections. The mean scores for each rubric dimension are shown in Figure 1. A percentage of artifacts scoring a 3 or better is shown in Figure 2.


Figure 1. ENC 0022 Final Exam written section mean rubric scores for summer 2016.


Figure 2. Percentage of summer 2016 artifacts scored 3 or higher on written section of ENC 0022 final exam.
While 34 artifacts were reported for the written section of the exam, 31 were reported for the objective section. The mean scores for each are reported in Figure 3. Differences in the means between written section and the objective section were tested for significance using a Welch's t-test according to standard methods ${ }^{1,2,3,4}$ and were found to not be statistically significantly different ( $\mathrm{t}(42$ ) $=0.61, \mathrm{p}=0.546$ ). Therefore we cannot reject the null hypothesis that the difference in the means of the written and objective sections of the exam is equal to 0 , and we cannot conclude with $95 \%$ confidence that the differences in scores are not solely due to chance.


Figure 3. Mean scores by exam section and overall score for the summer 2016 ENC 0022 final exam.

Of the 34 artifacts collected from the final exam, 12 originate from the compressed learning strategy version of the course while 19 originate from the modularized learning strategy of the course. A comparison of mean scores by learning strategy is shown in Figure 4. Differences in the means between compressed and modularized learning strategy overall scores were tested for significance using a Welch's t-test according to standard methods ${ }^{1,2,3,4}$ and were found to be statistically significantly different $(\mathrm{t}(42)=2.93, \mathrm{p}=0.007)$. Therefore we can reject the null hypothesis that the difference in the means of the written and objective sections of the exam is equal to 0 , and we can conclude with $95 \%$ confidence that the differences in scores are not solely due to chance.


Figure 4. Comparison of summer 2016 exam section and overall scores by learning strategy.
Success rates based on achievement at the $70 \%$ level by learning strategy were compiled and are shown in Figure 5. The percentage of artifacts scoring $70 \%$ or better on the final exam originating from modularized sections is $95 \%$, with sample size of $n=19$. The percentage of artifacts scored $70 \%$ or better on the final exam originating from compressed sections is $67 \%$, with sample size of $n=12$.

A longitudinal study exhibits a consistent level of achievement overall with the exception of the summer 2015 term. This trend is also evident among compressed learning strategy sections as modularized enrollment remains low enough to be fairly inconsequential in influencing overall rates. Summer 2016 exhibits the highest success rate of any term thus far since recording began in fall 2014.


Figure 5. Summer 2016 ENC 0022 final exam success rate ( $\geq 70 \%$ ) by section and learning strategy.


Figure 6. Comparison of ENC 0022 final exam success rates over time. Success rate is achievement at $70 \%$ or higher.
${ }^{1}$ Davis, J.C. 1973. Statistics and Data Analysis in Geology. John Wiley \& Sons, New York, New York, 564 pp.
${ }^{2}$ McDonald, J.H. 2009. Handbook of Biological Statistics (2nd ed.). Sparky House Publishing, Baltimore, Maryland.
${ }^{3}$ Siegel, S. 1956. Nonparametric statistics for the behavior sciences. McGraw-Hill, New York, New York, 312 pp.
${ }^{4}$ Wilkinson, L. 1999. APA Task Force on Statistical Inference. Statistical Methods in Psychology Journals: Guidelines and Explanations. American Psychologist 54 (8), 594-604.

Section 3

Florida SouthWestern State College tracks satisfaction of current developmental courses through a survey administered at the end of each term. The data is in support of assessment measures for the SB1720 plan to determine efficacy of developmental options and to inform course and program improvement. The following are the results for the summer 2016 term.

Of the 39 students enrolled in ENC 0022 during summer 2016, 10 responded to the survey for a response rate of $26 \%$, up from $14 \%$ in spring 2016. Of the 39 respondents, $20 \%$ were enrolled in the traditional (compressed) classroom learning strategy, while $80 \%$ were enrolled in the computer assisted (modularized) learning strategy.


Figure 1. Response rate by learning strategy.
Questions 1-6 of the survey establish general statistics of the survey respondent such as class meeting times, gender, age group, etc. Questions 7-10 are Likert scale questions describing student perception of learning and achievement in various areas. The below are the prompts for Question \#7 followed by the results in Figure 2.

Q7: I believe I have improved in the following areas since taking this English class.

1. English Grammar
2. Punctuation
3. Sentence skills
4. Essay writing
5. Vocabulary
6. Spelling


Figure 2. Responses to Question \#7 " I believe I have improved in the following areas since taking this English class."
All six areas exhibit positive responses (Agree or Strongly agree) of $70 \%$ or higher. Questions 7-1 through 7-4 exhibit response rates of $80 \%$. No question exhibits a negative response rates greater than 10\% (Disagree or Strongly disagree).

The below are the prompts for Question \#8 followed by the results in Figure 3.
Q8: I believe I have benefited from the following aspects of the Academic Support Writing Center this semester.

1. The resources available in the Writing Center
2. The instructional assistants
3. The access to computers
4. The programs on the computers
5. The hours the Writing Center was open and available to me
6. The required Writing Center hours for my English class


Figure 3. Responses to Question \#8 "I believe I benefited from the following aspects of the Academic Support Writing Center this semester."

All six areas exhibit positive responses (Agree or Strongly agree) of 60\% or better. Q8-4 and Q8-5 exhibit positive response rates of greater $80 \%$. The largest negative response rate (Disagree or Strongly disagree) is for Q8-4 and Q8-6, at 20\%, up from the highest in spring 2016 of $16 \%$.

The below are the prompts for Question \#9 followed by the results in Figure 4.
Q9: I was satisfied with the following aspects of my English class this semester.

1. The information on the course syllabus
2. The content of the course textbook
3. The McGraw-Hill Connect computer component
4. The amount of homework assigned
5. The number of tests
6. The number of written assignments
7. The length of time in class
8. The frequency of class meetings
9. The pace of the course


Figure 4. Responses to Question \#9 "I was satisfied with the following aspects of my English class this semester."
All nine areas exhibit positive responses (Agree or Strongly agree) of $50 \%$ or better. Seven of nine questions exhibit positive responses of $80 \%$. Only Q9-3 and Q9-4 exhibit response rates lower than $80 \%$ with Q9-3 at $50 \%$ and Q9-4 at 60\%.

The below are the prompts for Question \#10 followed by the results in Figure 5.
Q10: This English course prepared me for:

1. The writing I will do in college
2. The expectations of college courses
3. The time management I must have in college
4. The skills I need to take tests in college
5. The use of technology in college classes


Figure 5. Responses to Question \#10 "This English course prepared me for:"
All five areas exhibit positive responses (Agree or Strongly agree) of $70 \%$ or better. Three of the five questions exhibit positive response rates of $90 \%$.

A tabulation of positive responses (Strongly agree or Agree) is included below based on learning strategy (Table 1). However, note that of the 10 responses, 8 reported from modularized sections while only two reported from modularized sections. As a result, statistical significance tests yield limited accuracy (de Winter, 2013) and so were not conducted.

|  | Traditional <br> (Compressed) | Modularized |  | Traditional <br> (Compressed) | Modularized |
| :---: | :---: | :---: | ---: | :---: | :---: |
| Q7-1 | $100 \%$ | $75 \%$ | Q9-1 | $100 \%$ | $63 \%$ |
| Q7-2 | $100 \%$ | $75 \%$ | $\mathbf{Q 9 - 2}$ | $100 \%$ | $63 \%$ |
| Q7-3 | $100 \%$ | $75 \%$ | $\mathbf{Q 9 - 3}$ | $50 \%$ | $50 \%$ |
| Q7-4 | $100 \%$ | $75 \%$ | Q9-4 | $100 \%$ | $50 \%$ |
| Q7-5 | $100 \%$ | $63 \%$ | Q9-5 | $100 \%$ | $75 \%$ |
| Q7-6 | $100 \%$ | $63 \%$ | Q9-6 | $100 \%$ | $88 \%$ |
| Q8-1 | $100 \%$ | $50 \%$ | Q9-7 | $100 \%$ | $75 \%$ |
| Q8-2 | $100 \%$ | $63 \%$ | $\mathbf{Q 9 - 8}$ | $100 \%$ | $75 \%$ |
| Q8-3 | $100 \%$ | $63 \%$ | $\mathbf{Q 9 - 9}$ | $100 \%$ | $75 \%$ |
| Q8-4 | $50 \%$ | $63 \%$ | $\mathbf{Q 1 0 - 1}$ | $100 \%$ | $88 \%$ |
| Q8-5 | $100 \%$ | $75 \%$ | $\mathbf{Q 1 0 - 2}$ | $100 \%$ | $88 \%$ |
| Q8-6 | $100 \%$ | $75 \%$ | $\mathbf{Q 1 0 - 3}$ | $50 \%$ | $75 \%$ |

Table 1. Positive survey response (Strongly Agree or Agree) by learning strategy. Shaded cells denote higher of the two learning strategies. Statistical significance tests were not completed due to low sample size.

Table 2 shows positive response rates (Agree or Strongly agree) for each of the survey prompts over time beginning fall 2014 through summer 2016. Note that comparison from fall-to-spring is less useful as assessment reports across multiple course level and program level assessments at FSW typically exhibit substantial differences from fall to spring term and are better interpreted from fall-to-fall and spring-to-spring (see http://www.fsw.edu/facultystaff/assessment/history for further details). Of the 26 questions, 20 exhibit increases while six exhibit increases.

|  | $\begin{gathered} \text { Fall } \\ 2014 \\ \mathrm{n}=65 \\ \hline \end{gathered}$ | Spring 2015 <br> n=35 | $\begin{gathered} \hline \text { Summer } \\ 2015 \\ \mathrm{n}=11 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Fall } \\ 2015 \\ \mathbf{n}=36 \end{gathered}$ | Spring 2016 <br> n=19 | $\begin{gathered} \hline \text { Summer } \\ 2016 \\ \mathrm{n}=10 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Question 7 - Prompt: I believe I have improved in the following areas since taking this English class. |  |  |  |  |  |  |
| English grammar | 69\% | 94\% | 55\% | 85\% | 100\% | 80\% |
| Punctuation | 75\% | 91\% | 45\% | 85\% | 95\% | 80\% |
| Sentence skills | 77\% | 97\% | 45\% | 85\% | 100\% | 80\% |
| Essay writing | 75\% | 97\% | 55\% | 91\% | 100\% | 80\% |
| Vocabulary | 65\% | 88\% | 55\% | 76\% | 100\% | 70\% |
| Spelling | 67\% | 81\% | 45\% | 85\% | 95\% | 70\% |
| Question 8 - Prompt: I benefited from the following aspects of the Academic Support Writing Center this semester. |  |  |  |  |  |  |
| The resources available in the Writing Center | 75\% | 78\% | 91\% | 80\% | 84\% | 60\% |
| The instructional assistants | 80\% | 81\% | 91\% | 77\% | 89\% | 70\% |
| The access to computers | 80\% | 91\% | 91\% | 74\% | 89\% | 70\% |
| The programs on the computers | 74\% | 75\% | 55\% | 77\% | 74\% | 60\% |
| The hours the Writing Center was open and available to me | 86\% | 94\% | 91\% | 83\% | 95\% | 80\% |
| The required Writing Center hours for my English class | 85\% | 84\% | 82\% | 81\% | 74\% | 80\% |
| Question 9 - Prompt: I was satisfied with the following aspects of my English class this semester. |  |  |  |  |  |  |
| The information on the course syllabus | 78\% | 88\% | 55\% | 83\% | 100\% | 70\% |
| The content of the course textbook | 67\% | 91\% | 64\% | 75\% | 100\% | 70\% |
| The McGraw-Hill Connect computer component | 52\% | 75\% | 40\% | 64\% | 84\% | 50\% |
| The amount of homework assigned | 75\% | 88\% | 55\% | 83\% | 100\% | 60\% |
| The number of tests | 75\% | 91\% | 64\% | 83\% | 95\% | 80\% |
| The number of written assignments | 75\% | 91\% | 82\% | 85\% | 100\% | 90\% |
| The length of time in class | 74\% | 91\% | 64\% | 86\% | 95\% | 80\% |
| The frequency of class meetings | 77\% | 91\% | 70\% | 86\% | 89\% | 80\% |
| The pace of the course | 72\% | 91\% | 70\% | 75\% | 100\% | 80\% |
| Question 10 - Prompt: This English course prepared me for: |  |  |  |  |  |  |
| The writing I will do in college | 77\% | 94\% | 55\% | 81\% | 89\% | 90\% |
| The expectations of college courses | 77\% | 88\% | 55\% | 81\% | 100\% | 90\% |
| The time management I must have in college | 77\% | 91\% | 73\% | 81\% | 100\% | 70\% |
| The skills I need to take tests in college | 75\% | 84\% | 73\% | 83\% | 95\% | 90\% |
| The use of technology in college classes | 67\% | 88\% | 55\% | 72\% | 95\% | 80\% |

Table 2. Positive (Agree or Strongly agree) response rates over time. Increases from summer-to-summer noted in green text, declines in red.

References:
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.

Section 4

Florida SouthWestern State College's assessment measures for the Senate Bill 1720 plan include a collection of achievement data to determine the efficacy of the developmental options and to inform course and program improvement. The FSW Math Department uses a 45 -question final exam to test mastery of the subject in MAT 0057 Mathematics for College Success. The following report details the results for the final exam for MAT 0057 for the summer 2016 term.

During summer 2016, 12 course sections were offered. Of those, 9 sections submitted results. In the 9 reporting sections, 43 artifacts from the final exam were collected with all 43 originating from the modularized learning strategy version of the course. A distribution of the artifact scores can be found in Figure 1. The data exhibit a bimodal distribution with peaks centered on $38 / 45$ ( $84 \%$ ) and $32 / 45$ ( $71 \%$ ) with a maximum of 44/45 (98\%) and minimum of 26/45 (58\%).


Figure 1. MAT 0057 final exam score distribution for summer 2016.
A comparison of mean scores by learning strategy would normally be exhibited here. However, of the nine courses reporting data, all sections originate from the modularized sections so no comparisons could be made.

Success rates based on achievement at the $50 \%, 70 \%$, and $90 \%$ level were compiled (Figure 2). The percentage of artifacts scored $50 \%$ or better for all sections on the final exam is $100 \%$. The percentage of artifacts scored $70 \%$ or better for all sections on the final exam is $86 \%$. The percentage of artifacts scored $90 \%$ or better for all sections on the final exam is $23 \%$.


Figure 2. Comparison of MAT 0057 final exam success rates at scores of $50 \%$ or higher, $70 \%$ or higher, and $90 \%$ or higher.
Of the 43 artifacts from the final exam, all 43 originated from nine sections on the Lee campus. As a result, no comparison by site could be made.

A longitudinal study exhibits a general positive trend in overall success rates from 56\% in Fall 2014 to $65 \%$ in spring 2016 with occasional spikes associated with summer terms (Figure 3). Any trends by learning strategy, if existing, are less clear. There is also no consistent pattern to success by learning strategy either, as both compressed and modularized strategies exhibit the higher of the two in two of the four terms (Spring 2015 and Summer 2015 for compressed, and the remaining for modularized), while spring 2016 are nearly identical.


Figure 3. Comparison of MAT 0057 final exam success rates over time. Success rate is achievement at $70 \%$ or higher.
${ }^{1}$ Davis, J.C. 1973. Statistics and Data Analysis in Geology. John Wiley \& Sons, New York, New York, 564 pp.
${ }^{2}$ McDonald, J.H. 2009. Handbook of Biological Statistics (2nd ed.). Sparky House Publishing, Baltimore, Maryland.
${ }^{3}$ Siegel, S. 1956. Nonparametric statistics for the behavior sciences. McGraw-Hill, New York, New York, 312 pp.
${ }^{4}$ Wilkinson, L. 1999. APA Task Force on Statistical Inference. Statistical Methods in Psychology Journals: Guidelines and Explanations. American Psychologist 54 (8), 594-604.

Section 5

Florida SouthWestern State College's assessment measures for the Senate Bill 1720 plan include a collection of achievement data to determine the efficacy of the developmental options and to inform course and program improvement. The FSW Math Department uses a 45 -question final exam to test mastery of the subject in MAT 0057 Mathematics for College Success and MAT 0058 Mathematics for College Success Module Completion, which was added for the first time this semester (spring 2016). The following report details the results for the final exam for MAT 0058 for the summer 2016 term.

During summer 2016, 4 course sections were offered. Of those, 2 sections submitted results. In the 2 reporting sections, 21 artifacts from the final exam were collected with 10 originating from a modularized section and 11 from a compressed section. A distribution of the artifact scores can be found in Figure 1. The data exhibit a distribution centered on $38 / 45$ ( $84 \%$ ).


Figure 1. MAT 0058 final exam score distribution for summer 2016.
A comparison of mean scores by learning strategy is shown in Figure 2. Differences in the means between compressed and modularized learning strategy were tested for significance using a Welch's ttest according to standard methods ${ }^{1,2,3,4}$ and were found to not be statistically significantly different $(\mathrm{t}(19)=2.071, \mathrm{p}=0.054)$. Therefore we cannot reject the null hypothesis that the difference in the means of the compressed and modularized course sections is equal to 0 , and we cannot conclude with $95 \%$ confidence that the differences in scores are not solely due to chance.


Figure 2. Comparison of MAT 0058 Final exam mean scores for overall (gray), compressed (teal), and modularized (purple) for summer 2016.

Success rates based on achievement at the $50 \%, 70 \%$, and $90 \%$ level were compiled (Figure 3). The percentage of artifacts scored $50 \%$ or better on the final exam is $95 \%$ overall ( $100 \%$ Compressed, $90 \%$ Modularized). The percentage of artifacts scored $70 \%$ or better on the final exam is $62 \%$ overall ( $73 \%$ Compressed, $50 \%$ Modularized). The percentage of artifacts scored $90 \%$ or better on the final exam is $10 \%$ overall ( $18 \%$ Compressed, $0 \%$ Modularized).


Figure 3. Comparison of MAT 0058 final exam success rates at scores of $50 \%$ or higher, $\mathbf{7 0 \%}$ or higher, and $90 \%$ or higher.

Of the 21 artifacts from the final exam, all were collected from the Thomas Edison (Lee) Campus so no cross-site comparisons could be made. A comparison of exam success rates by course (MAT 0057 with MAT 0058) is shown in Figure 4.


Figure 4. Comparison of MAT 0058 final exam success rates compared with MAT 0057 final exam success rates.
${ }^{1}$ Davis, J.C. 1973. Statistics and Data Analysis in Geology. John Wiley \& Sons, New York, New York, 564 pp.
${ }^{2}$ McDonald, J.H. 2009. Handbook of Biological Statistics (2nd ed.). Sparky House Publishing, Baltimore, Maryland.
${ }^{3}$ Siegel, S. 1956. Nonparametric statistics for the behavior sciences. McGraw-Hill, New York, New York, 312 pp.
${ }^{4}$ Wilkinson, L. 1999. APA Task Force on Statistical Inference. Statistical Methods in Psychology Journals: Guidelines and Explanations. American Psychologist 54 (8), 594-604.

Section 6

Florida SouthWestern State College tracks satisfaction of current developmental courses through a survey administered at the end of each term. The data is in support of assessment measures for the SB1720 plan to determine efficacy of developmental options and to inform course and program improvement. The following are the results for the summer 2016 term.

Of the 142 students enrolled in MAT 0057 during summer 2016, 50 responded to the survey for a response rate of $35.0 \%$, up from $15 \%$ in spring 2016. Of the 50 respondents, $24 \%$ were enrolled in the traditional classroom, or compressed, learning strategy while $76 \%$ were enrolled in the computer assisted, or modularized learning strategy. Note that spring 2016 data did not parse out MAT 0057 sections from MAT 0058 sections (the first term in which MAT 0058 was offered). Summer 2016 is the first term in which results will now be separated into two separate sections (and reports).


Figure 1. Response rate by learning strategy.
Questions 1-7, and 9 of the survey establish general statistics of the survey respondent such as class meeting times, gender, age group, etc. Questions $8,10-12$ are Likert scale questions describing student perception of learning and achievement in various areas. The below are the prompts for Question \#8 followed by the results in Figure 2.

Q8: I believe I have improved in the following areas since taking this Math class.

1. I am better at Math
2. Math is less scary
3. Math makes more sense to me
4. Math is easier for me
5. I have learned how to manage my time appropriately to succeed in math
6. I will be more successful in future Math courses


Figure 2. Responses to Question \#8 " I believe I have improved in the following areas since taking this Math class."
All six areas exhibit positive responses (Agree or Strongly agree) of $55 \%$ or better. Q8-1, Q8-5 and Q8-6 exhibit positive response rates greater than $70 \%$. Question $8-4$ exhibits the highest negative response rates (Disagree or Strongly disagree) with 22\%.

The below are the prompts for Question \#10 followed by the results in Figure 3.
Q10: I benefited from the following aspects of the Math Academic Support Center this semester.

1. The resources available in the Math Center
2. The instructional assistants
3. The access to computers
4. The programs on the computers
5. The hours the Math Center was open and available to me


Figure 3. Responses to Question \#10 "I benefited from the following aspects of the Math Academic Support Center this semester."

All five areas exhibit positive responses (Agree or Strongly agree) of 70\% or better. Q10-1, Q10-3 and Q10-5 exhibit positive response rates greater than $80 \%$. No question exhibits negative response rates (Disagree or Strongly disagree) greater than 7\%.

The below are the prompts for Question \#11 followed by the results in Figure 4.
Q11: I was satisfied with the following aspects of my Math class this semester.

1. The frequency of class meetings
2. The information on the course syllabus
3. The online homework with MyMathLabs Plus
4. The amount of homework assigned
5. The clarity of the explanations within the MyLabsPlus site
6. The number of tests
7. The length of time in class
8. The pace of the course


Figure 4. Responses to Question \#11 "I was satisfied with the following aspects of my Math class this semester."
All eight areas exhibit positive responses (Agree or Strongly agree) of 55\% or better. Q11-1, 11-2, and 11-7 exhibit positive response rates greater than $70 \%$. Question 11-3 exhibits the highest negative response rate (Disagree or Strongly disagree) with 30\%.

The below are the prompts for Question \#12 followed by the results in Figure 5.
Q12: This Math course prepared me for:

1. The next Math classes I will take
2. The time management I must have in college
3. The skills I need to take tests in college


Figure 5. Responses to Question \#12 "This Math course prepared me for:"

All three areas exhibit positive responses (Agree or Strongly agree) of 65\% or better. Q12-2 exhibits the highest positive response rate at $68 \%$. Question 12-2 exhibits the highest negative response rate (Disagree or Strongly disagree) with $18 \%$.

A tabulation of positive responses (Strongly agree or Agree) is included below based on learning strategy (Table 1). Of the 22 questions, 13 of 22 exhibit a more positive response from modularized respondents and $0 / 22$ were statistically significant based on results of a Fisher's exact test.

|  | Traditional <br> (Compressed) | Computer- <br> based <br> (Modularized) |
| ---: | :---: | :---: |
| Q8-1 | $75 \%$ | $74 \%$ |
| Q8-2 | $50 \%$ | $63 \%$ |
| Q8-3 | $58 \%$ | $70 \%$ |
| Q8-4 | $42 \%$ | $61 \%$ |
| Q8-5 | $67 \%$ | $66 \%$ |
| Q8-6 | $75 \%$ | $71 \%$ |
| Q10-1 | $86 \%$ | $85 \%$ |
| Q10-2 | $86 \%$ | $75 \%$ |
| Q10-3 | $86 \%$ | $85 \%$ |
| Q10-4 | $86 \%$ | $80 \%$ |
| Q10-5 | $71 \%$ | $75 \%$ |
| Q11-1 | $75 \%$ | $84 \%$ |
| Q11-2 | $67 \%$ | $78 \%$ |
| Q11-3 | $42 \%$ | $61 \%$ |
| Q11-4 | $58 \%$ | $63 \%$ |
| Q11-5 | $67 \%$ | $79 \%$ |
| Q11-6 | $67 \%$ | $68 \%$ |
| Q11-7 | $75 \%$ | $79 \%$ |
| Q11-8 | $67 \%$ | $59 \%$ |
| Q12-1 | $75 \%$ | $68 \%$ |
| Q12-2 | $67 \%$ | $68 \%$ |
| Q12-3 | $67 \%$ | $66 \%$ |

Table 1. Positive survey response (Strongly Agree or Agree) by learning strategy. Shaded cells denote higher of the two learning strategies. *denotes statistical significance.

Table 2 shows positive response rates (Agree or Strongly agree) for each of the survey prompts over time beginning fall 2014 through summer 2016. Note that comparison from fall-to-spring is less useful as assessment reports across multiple course level and program level assessments at FSW typically exhibit substantial differences from fall to spring term and are better interpreted from fall-to-fall and spring-to-spring (see http://www.fsw.edu/facultystaff/assessment/history for further details). Of the 22 questions, 4 exhibit increases while 18 exhibit declines.

|  | $\begin{gathered} \text { Fall } \\ 2014 \\ \mathbf{n}=265 \\ \hline \end{gathered}$ | Spring 2015 n=137 | $\begin{gathered} \hline \text { Summer } \\ 2015 \\ \mathbf{n}=73 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Fall } \\ 2015 \\ \mathbf{n}=120 \\ \hline \end{gathered}$ | Spring 2016 n=91 | $\begin{gathered} \hline \text { Summer } \\ 2016 \\ \mathrm{n}=50 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Question 8 - Prompt: I believe I have improved in the following areas since taking this Math class. |  |  |  |  |  |  |
| I am better at Math | 62\% | 74\% | 81\% | 69\% | 71\% | 74\% |
| Math is less scary | 54\% | 59\% | 69\% | 63\% | 63\% | 60\% |
| Math makes more sense to me | 63\% | 65\% | 78\% | 65\% | 69\% | 67\% |
| Math is easier for me | 52\% | 53\% | 69\% | 52\% | 55\% | 56\% |
| I have learned how to manage my time appropriately to succeed in math | 63\% | 65\% | 74\% | 69\% | 66\% | 66\% |
| I will be more successful in future Math courses | 70\% | 71\% | 84\% | 77\% | 73\% | 72\% |
| Question 10 - Prompt: I benefited from the following aspects of the Math Academic Support Center this semester. |  |  |  |  |  |  |
| The resources available in the Math Center | 59\% | 80\% | 83\% | 76\% | 79\% | 85\% |
| The instructional assistants | 57\% | 73\% | 83\% | 75\% | 77\% | 78\% |
| The access to computers | 72\% | 86\% | 77\% | 81\% | 83\% | 85\% |
| The programs on the computers | 68\% | 76\% | 77\% | 71\% | 69\% | 81\% |
| The hours the Math Center was open and available to me | 68\% | 84\% | 90\% | 79\% | 85\% | 74\% |
| Question 9 - Prompt: I was satisfied with the following aspects of my Math class this semester. |  |  |  |  |  |  |
| The frequency of class meetings | 72\% | 85\% | 86\% | 81\% | 77\% | 82\% |
| The information on the course syllabus | 78\% | 84\% | 89\% | 80\% | 76\% | 76\% |
| The online homework with MyMathLabs Plus | 77\% | 84\% | 81\% | 74\% | 61\% | 56\% |
| The amount of homework assigned | 69\% | 69\% | 67\% | 70\% | 69\% | 62\% |
| The clarity of the explanations within the MyLabsPlus site | 51\% | 73\% | 70\% | 61\% | 70\% | 76\% |
| The number of tests | 77\% | 78\% | 85\% | 73\% | 72\% | 68\% |
| The length of time in class | 76\% | 84\% | 79\% | 79\% | 81\% | 78\% |
| The pace of the course | 64\% | 67\% | 69\% | 67\% | 68\% | 61\% |
| Question 10 - Prompt: This Math course prepared me for: |  |  |  |  |  |  |
| The next Math classes I will take | 71\% | 75\% | 85\% | 68\% | 83\% | 70\% |
| The time management I must have in college | 71\% | 71\% | 81\% | 69\% | 73\% | 68\% |
| The skills I need to take tests in college | 70\% | 68\% | 82\% | 68\% | 79\% | 66\% |

Table 2. Positive (Agree or Strongly agree) response rates over time. Increases from summer-to-summer noted in green text, declines in red.

Florida SouthWestern State College tracks satisfaction of current developmental courses through a survey administered at the end of each term. The data is in support of assessment measures for the SB1720 plan to determine efficacy of developmental options and to inform course and program improvement. The following are the results for the summer 2016 term.

Of the 56 students enrolled in MAT 0058 during summer 2016, 11 responded to the survey for a response rate of $20 \%$, up from $15 \%$ in spring 2016 . Of the 11 respondents, $27 \%$ were enrolled in the traditional classroom, or compressed, learning strategy while $73 \%$ were enrolled in the computer assisted, or modularized learning strategy. Note that spring 2016 data did not parse out MAT 0057 sections from MAT 0058 sections (the first term in which MAT 0058 was offered). Summer 2016 is the first term in which results will now be separated into two separate sections (and reports).


Figure 1. Response rate by learning strategy.
Questions 1-7, and 9 of the survey establish general statistics of the survey respondent such as class meeting times, gender, age group, etc. Questions 8, 10-12 are Likert scale questions describing student perception of learning and achievement in various areas. The below are the prompts for Question \#8 followed by the results in Figure 2.

Q8: I believe I have improved in the following areas since taking this Math class.

1. I am better at Math
2. Math is less scary
3. Math makes more sense to me
4. Math is easier for me
5. I have learned how to manage my time appropriately to succeed in math
6. I will be more successful in future Math courses


Figure 2. Responses to Question \#8 " I believe I have improved in the following areas since taking this Math class."
All six areas exhibit positive responses (Agree or Strongly agree) of $55 \%$ or better with the exception of Q8-4, which exhibits a positive response rate of $36 \%$. Q8-2 and Q8-5 exhibit positive response rates greater than $60 \%$. Question $8-4$ exhibits the highest negative response rates (Disagree or Strongly disagree) with $27 \%$.

The below are the prompts for Question \#10 followed by the results in Figure 3.
Q10: I benefited from the following aspects of the Math Academic Support Center this semester.

1. The resources available in the Math Center
2. The instructional assistants
3. The access to computers
4. The programs on the computers
5. The hours the Math Center was open and available to me


Figure 3. Responses to Question \#10 "I benefited from the following aspects of the Math Academic Support Center this semester."

All five areas exhibit positive responses (Agree or Strongly agree) of 80\% or better. Q10-2, Q10-3 and Q10-5 exhibit positive response rates of $100 \%$. No question exhibits negative response rates (Disagree or Strongly disagree).

The below are the prompts for Question \#11 followed by the results in Figure 4.
Q11: I was satisfied with the following aspects of my Math class this semester.

1. The frequency of class meetings
2. The information on the course syllabus
3. The online homework with MyMathLabs Plus
4. The amount of homework assigned
5. The clarity of the explanations within the MyLabsPlus site
6. The number of tests
7. The length of time in class
8. The pace of the course


Figure 4. Responses to Question \#11 "I was satisfied with the following aspects of my Math class this semester."
All eight areas exhibit positive responses (Agree or Strongly agree) of $50 \%$ or better with the exception of Q11-3 (45\%). Q11-1, 11-5, Q11-6, and 11-7 exhibit positive response rates greater than $70 \%$. Question 11-3 exhibits the highest negative response rate (Disagree or Strongly disagree) with $27 \%$.

The below are the prompts for Question \#12 followed by the results in Figure 5.

Q12: This Math course prepared me for:

1. The next Math classes I will take
2. The time management I must have in college
3. The skills I need to take tests in college


Figure 5. Responses to Question \#12 "This Math course prepared me for:"

All three areas exhibit positive responses (Agree or Strongly agree) of 60\% or better. Q12-2 exhibits the highest positive response rate at $82 \%$. Questions $12-2$ and 12-3 exhibit the highest negative response rate (Disagree or Strongly disagree), each with $9 \%$.

A tabulation of positive responses (Strongly agree or Agree) is included below based on learning strategy (Table 1). However, note that only 11 responses were recorded ( 3 from compressed and 8 from modularized). As a result, statistical significance tests yield limited accuracy (de Winter, 2013) and so were not conducted.

|  | Traditional <br> (Compressed) | Computer-based <br> (Modularized) |
| ---: | :---: | :---: |
| Q8-1 | $67 \%$ | $63 \%$ |
| Q8-2 | $67 \%$ | $63 \%$ |
| Q8-3 | $67 \%$ | $63 \%$ |
| Q8-4 | $67 \%$ | $25 \%$ |
| Q8-5 | $100 \%$ | $75 \%$ |
| Q8-6 | $33 \%$ | $75 \%$ |
| Q10-1 | $100 \%$ | $67 \%$ |
| Q10-2 | $100 \%$ | $100 \%$ |
| Q10-3 | $100 \%$ | $100 \%$ |
| Q10-4 | $67 \%$ | $67 \%$ |
| Q10-5 | $100 \%$ | $100 \%$ |
| Q11-1 | $100 \%$ | $75 \%$ |
| Q11-2 | $67 \%$ | $75 \%$ |
| Q11-3 | $0 \%$ | $63 \%$ |
| Q11-4 | $33 \%$ | $63 \%$ |
| Q11-5 | $100 \%$ | $63 \%$ |
| Q11-6 | $100 \%$ | $63 \%$ |
| Q11-7 | $100 \%$ | $63 \%$ |
| Q11-8 | $67 \%$ | $63 \%$ |
| Q12-1 | $67 \%$ | $63 \%$ |
| Q12-2 | $67 \%$ | $88 \%$ |
| Q12-3 | $33 \%$ | $75 \%$ |

Table 1. Positive survey response (Strongly Agree or Agree) by learning strategy. Shaded cells denote higher of the two learning strategies.

References:
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.

Section 7

## REA 0019 Mastery Exam Assessment Report - Summer 2016

Florida SouthWestern State College's assessment measures for the Senate Bill 1720 plan include a collection of achievement data to determine the efficacy of the developmental options and to inform course and program improvement. The learning outcome: Students will read at a post-secondary level that correlates with college success by the completion of the Developmental Reading sequence, is measured through the comparison of pre- and post-tests conducted using the Townsend Press College Reading Test as an assessment within REA 0019 Reading for College Success. The following report details the results for Townsend Press College Reading Test for the summer 2016 term.

In a comparison of pre-test to post-test results, the mean scores increased across all rubric criterion as well as the overall score (Figure 1). The difference in the means of the overall score from pre-to-post test scores was tested for significance using a paired means $t$-test according to standard methods ${ }^{1,2,3,4}$. The paired means t-test results indicate a statistically significant improvement from 25.7 to 28.5 $\left(\mathrm{t}(55)=3.23, \mathrm{p}=4.92 \times 10^{-4}\right)$. Therefore we can reject the null hypothesis that the difference in the means of the overall scores of the pre- and post-test scores is equal to 0 , and we can conclude this with a $95 \%$ confidence that the differences in scores are not solely due to chance. A distribution of overall scores from pre-to-post test can be found in figure 2.


Figure 1. Comparison of pre- (teal) and post-test (purple) achievement for the Townsend Press College Reading Test (serving as the course mastery exam) conducted during the summer 2016 semester in REA 0019 courses. MI: Main Idea (9 points), VC: Vocabulary ( 4 points), SD: Supporting Details ( 8 points), R: Relationships ( 6 points), I: Inferences (7 points), F/O: Fact/Opinion (3 points), and P/T: Purpose/Tone (3 points) for a total of 40 possible points.


Figure 2. Distribution of pre- (teal) and post-test (purple) scores for the Townsend Press College Reading Test (serving as the course mastery exam) conducted during the summer 2016 semester in REA 0019 courses.

A comparison of pre-test to post-test results as a function of learning strategy (modularized, compressed, and contextualized) would normally be shown as well. However, all sections of the course in summer 2016 were conducted as compressed and so no comparisons could be made.

A longitudinal study of success rates on this assessment is provided in Table 1. Note that overall success rates are down compared with summer 2015, however a vastly different representation of learning strategies are represented in summer 2016 as compared with the previous year. Summer 2015 included only modularized sections while summer 2016 included only compressed sections.

|  | Modularized | Compressed | Contextualized | Overall |
| ---: | :---: | :---: | :---: | :---: |
| Spring 2015 | $57 \%$ | $79 \%$ | $*$ | $\mathbf{7 3 \%}$ |
| Summer 2015 | $67 \%$ | $*$ | $*$ | $\mathbf{6 8 \%}$ |
| Fall 2015 | $72 \%$ | $66 \%$ | $65 \%$ | $\mathbf{6 9 \%}$ |
| Spring 2016 | $59 \%$ | $54 \%$ | $57 \%$ | $\mathbf{5 7 \%}$ |
| Summer 2016 | $*$ | $62 \%$ | $*$ | $\mathbf{6 2 \%}$ |

Table 1. Longitudinal study of post-test success rates (achievement at 70\% or higher) using the present assessment (Townshend Press College Reading Test). *Denotes no sections of the strategy offered.

A paired comparison was also completed to gauge improvement in a case-by-case basis. In that study, $69 \%$ of students exhibit at least some improvement from pre-to-post test (Figure 4). Of those, $44 \%$ of students exhibit improvement of greater than or equal to 10\% (4 point or more increase on the 40-point test). This is up from $43 \%$ in spring 2016 and $40 \%$ in fall 2015.


Figure 3. Comparison of the change in individual students' paired tests from pre-test to their post-test counterpart for summer 2016
${ }^{1}$ Davis, J.C. 1973. Statistics and Data Analysis in Geology. John Wiley \& Sons, New York, New York, 564 pp.
${ }^{2}$ McDonald, J.H. 2009. Handbook of Biological Statistics (2nd ed.). Sparky House Publishing, Baltimore, Maryland.
${ }^{3}$ Siegel, S. 1956. Nonparametric statistics for the behavior sciences. McGraw-Hill, New York, New York, 312 pp.
${ }^{4}$ Wilkinson, L. 1999. APA Task Force on Statistical Inference. Statistical Methods in Psychology Journals: Guidelines and Explanations. American Psychologist 54 (8), 594-604.

Section 8

Florida SouthWestern State College tracks satisfaction of current developmental courses through a survey administered at the end of each term. The data is in support of assessment measures for the SB1720 plan to determine efficacy of developmental options and to inform course and program improvement. The following are the results for the summer 2016 term.

Of the 33 students enrolled in REA 0019 during summer 2016, 10 responded to the survey for a response rate of $30 \%$. Questions $1-6$ of the survey establish general statistics of the survey respondent such as class meeting times, gender, age group, etc. Questions 7-10 are Likert scale questions describing student perception of learning and achievement in various areas. The below are the prompts for Question \#7 followed by the results in Figure 1.
\#7 I believe I have improved in the following areas since taking this Reading class (Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree).

1. Reading college textbooks
2. Reading novels
3. Reading for fun
4. Understanding what I read
5. Expanding my vocabulary


Figure 1. Responses to Question \#7 "I believe I have improved in the following areas since taking this reading class."

All five areas exhibit positive responses (Agree or Strongly agree) of 60\% or. Q7-1, Q7-4, and Q7-5 exhibit positive response rates greater than $80 \%$. All questions exhibit negative responses of $10 \%$ with each originating from one common respondent. Note that only compressed sections were offered during summer 2016 so no responses were recorded originating from either modularized sections or contextualized sections and therefore no comparison by learning strategy is warranted.

The following are the prompts for Question \#8 followed by results in Figure 2.
\#8 I benefited from the following aspects of the Academic Support Center for Reading this semester (Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree).

1. The resources available in the Center
2. The instructional assistants
3. The access to computers
4. The programs on the computers
5. The hours the Center was open and available to me


Figure 2. Responses to Question \#8 "I benefited from the following aspects of the Academic Support Center for Reading this semester."

All five areas exhibit positive responses (Agree or Strongly agree) of $60 \%$ or better. Q8-5 exhibits a positive response rate of $70 \%$. All questions exhibit negative responses of $10 \%$ with each originating from one common respondent.

The following are the prompts for Question \#9 followed by results in Figure 3.
\#9 I was satisfied with the following aspects of my Reading class this semester (Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree).

1. The novel or stories we read in class
2. The information on the course syllabus
3. The course textbook
4. The homework assigned
5. The number of tests
6. The length of time of each class
7. The frequency of class meetings
8. The pace of the course


Figure 3. Responses to Question \#9 " I was satisfied with the following aspects of my Reading class this semester."
All eight areas exhibit positive responses (Agree or Strongly agree) of 70\% or better. Questions 9-2, 9-4, $9-7$, and $9-8$ exhibits a response of Strongly Agree at $80 \%$. All questions exhibit negative responses of $10 \%$ with each originating from one common respondent.

The following are the prompts for Question \#10 followed by results in Figure 4.
\#10 This Reading course prepared me for: (Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree).

1. The textbook reading I will do in college
2. The expectations of college courses
3. The time management I must have in college
4. The skills I need to take tests in college
5. The technology used in college classes


Figure 4. Responses to Question \#10 "This Reading course prepared me for:"
All five areas exhibit positive responses (Agree or Strongly agree) of $80 \%$ or better. All questions exhibit negative responses of $10 \%$ with each originating from one common respondent. Note that only compressed sections were offered during summer 2016 so no responses were recorded originating from either modularized sections or contextualized sections and therefore no comparison by learning strategy is warranted.

Table 1 shows positive response rates (Agree or Strongly agree) for each of the survey prompts over time beginning fall 2014 through summer 2016. Note that comparison from fall-to-spring is less useful as assessment reports across multiple course level and program level assessments at FSW typically exhibit substantial differences from fall to spring term and are better interpreted from fall-to-fall and spring-to-spring (see http://www.fsw.edu/facultystaff/assessment/history for further details). Summer 2016 marks the first summer term since the offering REA 0019 in which a sufficient sample of respondents was collected. As a result, no comparison of previous summer terms can be made.

|  | $\begin{gathered} \hline \text { Fall } \\ 2014 \\ \mathrm{n}=51 \\ \hline \end{gathered}$ | Spring <br> 2015 <br> n=21 | $\begin{gathered} \hline \text { Summer } \\ 2015 \\ \mathbf{n}=2 \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \text { Fall } \\ & 2015 \\ & \mathbf{n}=40 \\ & \hline \end{aligned}$ | Spring 2016 <br> n=15 | $\begin{gathered} \hline \text { Summer } \\ 2016 \\ \mathrm{n}=10 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Question 7 - Prompt: I believe I have improved in the following areas since taking this Reading class. |  |  |  |  |  |  |
| Reading college textbooks | 58\% | 90\% | low | 85\% | 80\% | 80\% |
| Reading novels | 60\% | 75\% | sample | 60\% | 73\% | 60\% |
| Reading for fun | 58\% | 90\% | size | 65\% | 67\% | 60\% |
| Understanding what I read | 67\% | 90\% |  | 85\% | 73\% | 80\% |
| Expanding my vocabulary | 69\% | 86\% |  | 90\% | 80\% | 80\% |
| Question 8 - Prompt: I benefited from the following aspects of the Academic Support Center for Reading this semester. |  |  |  |  |  |  |
| The resources available in the Center | 69\% | 75\% | low | 67\% | 73\% | 60\% |
| The instructional assistants | 65\% | 85\% | sample | 68\% | 67\% | 60\% |
| The access to computers | 69\% | 86\% | size | 74\% | 73\% | 60\% |
| The programs on the computers | 63\% | 76\% |  | 82\% | 80\% | 60\% |
| The hours the Center was open and available to me | 71\% | 85\% |  | 77\% | 87\% | 70\% |
| Question 9 - Prompt: I was satisfied with the following aspects of my Reading class this semester. |  |  |  |  |  |  |
| The novel or stories we read for the class | 67\% | 86\% | low | 63\% | 60\% | 70\% |
| The information on the course syllabus | 71\% | 95\% | sample | 80\% | 67\% | 90\% |
| The course textbook | 63\% | 90\% | size | 78\% | 67\% | 90\% |
| The homework assigned | 71\% | 86\% |  | 78\% | 73\% | 90\% |
| The number of tests | 63\% | 90\% |  | 70\% | 80\% | 90\% |
| The length of time of each class | 75\% | 86\% |  | 78\% | 73\% | 80\% |
| The frequency of class meetings | 71\% | 90\% |  | 73\% | 73\% | 90\% |
| The pace of the course | 69\% | 90\% |  | 78\% | 80\% | 90\% |
| Question 10 - Prompt: This reading course prepared me for: |  |  |  |  |  |  |
| The textbook reading I will do in college | 71\% | 86\% | low | 68\% | 67\% | 80\% |
| The expectations of college courses | 73\% | 81\% | sample | 73\% | 60\% | 80\% |
| The time management I must have in college | 73\% | 71\% | size | 70\% | 53\% | 80\% |
| The skills I need to take tests in college | 71\% | 81\% |  | 68\% | 60\% | 80\% |
| The technology used in college classes | 65\% | 81\% |  | 63\% | 67\% | 70\% |

Table 1. Positive (Agree or Strongly agree) response rates over time.

