Developmental Achievement & Student Satisfaction Reports
Fall 2017

Author: Joseph F. van Gaalen, Ph.D., Director, Assessment & Effectiveness

Florida SouthWestern State College's assessment measures for the Developmental Accountability 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 Developmental Accountability 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 2016-2017 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. Note that MAT 0057 and 0058 assessments were not completed in Fall 2017 due to Hurricane Irma impacts.

- ❖ Section 1: ENC 0022 Common Course Assessment Report (includes ENC 1101 & LIT 2000)
- ❖ Section 2: ENC 0022 Final Exam Assessment Report
- ❖ Section 3: ENC 0022 Survey Results Report
- ❖ Section 4: MAT 0057 Survey Results Report
- ❖ Section 5: MAT 0058 Survey Results Report
- ❖ Section 6: REA 0019 Final Exam Assessment Report
- ❖ Section 7: REA 0019 Survey Results Report

English Assessment Report
Fall 2017

Author: Joseph F. van Gaalen, Ph.D., Director, Assessment & Effectiveness

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*. The planned assessment practice continues in fall 2016 in which instructors use a common rubric with seven identified rubric dimensions in the case of ENC 0022, and five dimensions for both ENC 1101 and ENC 1102. The assessment plan uses a random sample of 30% of all course sections offered in ENC 1101 and ENC 1102. In the case of ENC 0022, because it is a course being assessed by assessment plans in addition to the English Department (Developmental Accountability Plan) all course sections for ENC 0022 are assessed.

The standard assessment plan highlighted above is designed to evaluate each course and inform faculty on Student Learning Objectives (SLOs) for future assessment plans. Additionally, the plan provides information on achievement levels of Dual Enrollment artifacts compared with non-Dual Enrollment, as well as online artifacts compared with traditional artifacts. Other analyses such as comparison by term length (standard vs. mini-term) and longitudinal studies are included.

For additional detail or further analysis not provided in this report, please contact Dr. Joseph F. van Gaalen, Director of Assessment & Effectiveness, Academic Affairs (jfvangaalen@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 fall 2017 assessment, 117 artifacts were collected for ENC 0022 from 8 of 10 course sections. The lowest scoring rubric dimension for percentage of artifacts scoring a 2 or greater is Research at 89%. All other dimensions exhibit percentage of 94% or higher (Table 1). For a visual comparison of scores by dimension, see Figure 1.

Rubric Score	Introductory Paragraph	Support Paragraphs	Organization	Concluding Paragraph	Grammar	Mechanics	Research
Developing or higher	98%	100%	99%	97%	94%	94%	89%
4	18%	17%	14%	13%	14%	13%	4%
3	45%	42%	45%	41%	37%	35%	30%
2	36%	41%	40%	44%	43%	47%	55%
1	2%	0%	1%	3%	6%	6%	11%
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.
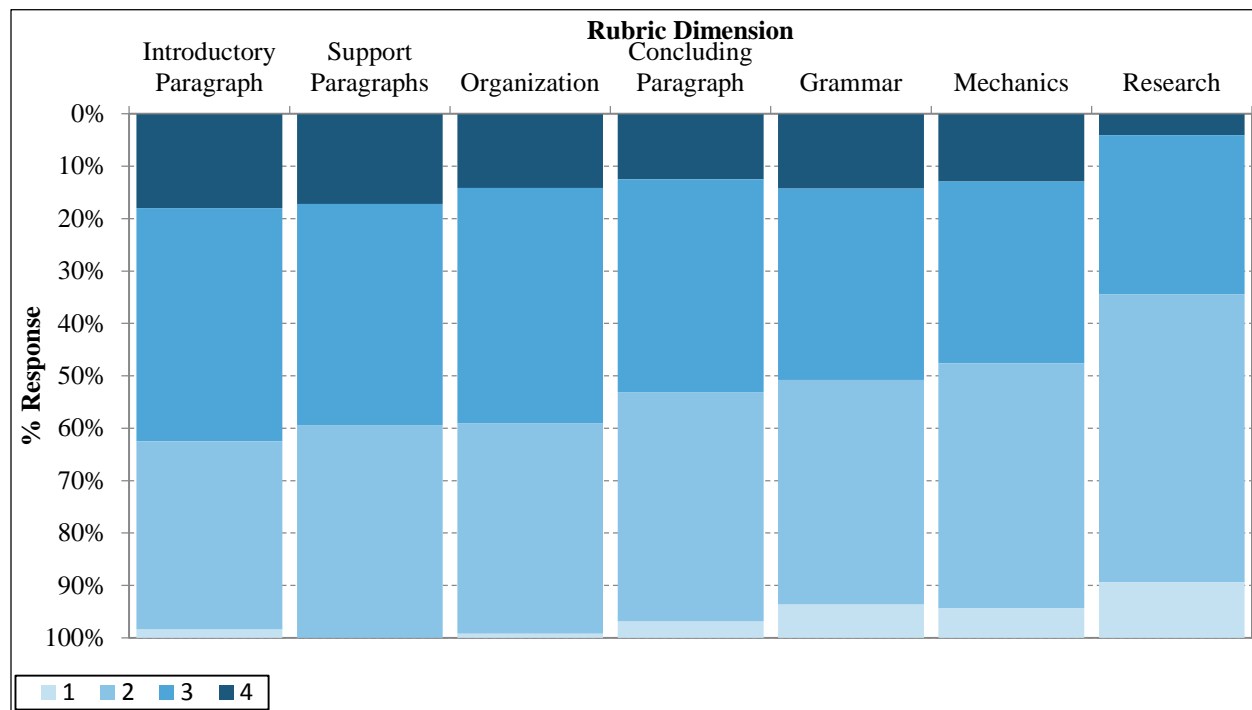

Figure 1. ENC 0022 distribution of rubric scores by dimension.

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 117 artifacts is shown in Figure 2. Distribution of artifact scores is bimodal centered on 14/28 and 20/28, and is moderately positively skewed, meaning scores are shifted towards the lower range. To describe the behavior of the rubric dimensions based on overall achievement a color map, or binary raster image was created by calculating the mean scores for each dimension as a function of combined score (Figure 3). To create this image the rubric scores (4, 3, 2, 1, or 0) for each artifact was grouped based on combined raw rubric score (7 dimensions x maximum rubric level of 4 = 28 overall points). The color represents the mean rubric score achieved in each dimension based on the combined score as shown in the x-axis.

	Introductory Paragraph	Support Paragraphs	Organization	Concluding Paragraph	Grammar	Mechanics	Research	TOTAL
n	128	128	127	128	126	124	122	**117**
Max	4	4	4	4	4	4	4	**28**
Min	1	2	1	1	1	1	1	**10**
Median	3	3	3	3	3	2	2	**17**
Mode	3	3	3	2	2	2	2	**14**
Mean	2.8	2.8	2.7	2.6	2.6	2.5	2.3	**18.0**
Standard deviation	0.75	0.73	0.71	0.74	0.81	0.79	0.71	**4.46**
Skewness	0.14	0.39	0.32	0.26	0.17	0.29	0.26	**0.60**
Kurtosis	-0.77	-1.02	-0.74	-0.50	-0.57	-0.48	0.02	**-0.45**

Table 2. Descriptive statistics for ENC 0022 common course assessment.
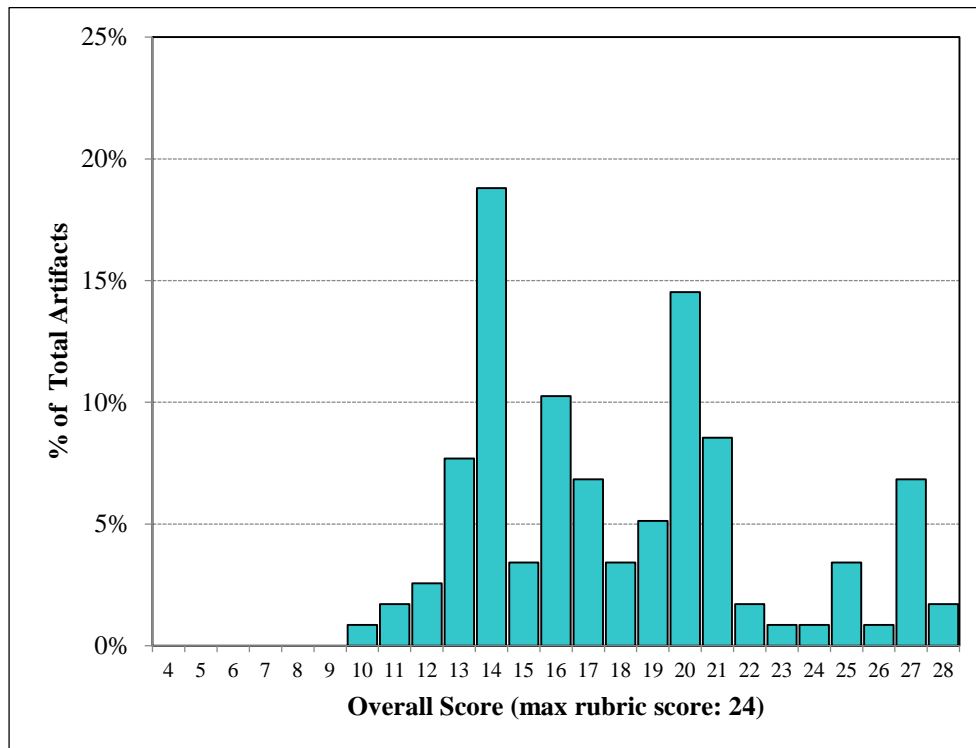
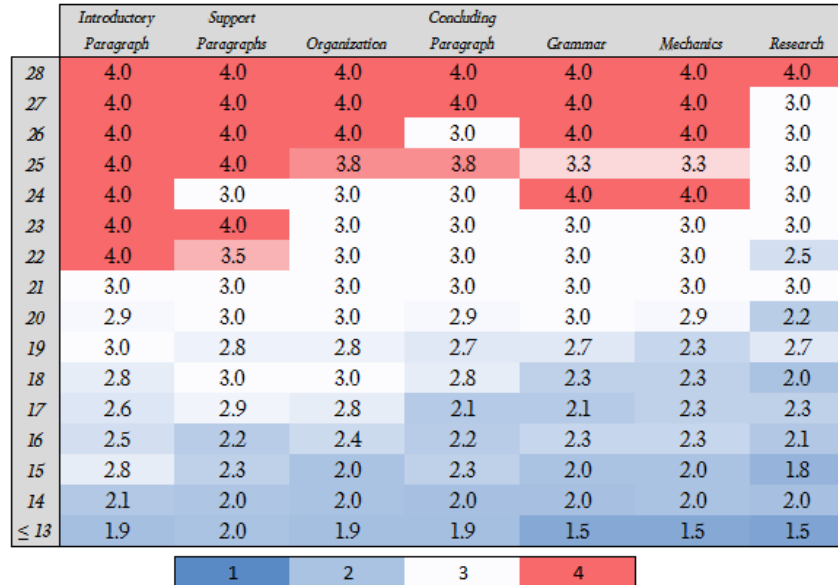*Figure 2. Overall score distribution for ENC 0022 artifacts (fall 2017 term).*

	Introductory Paragraph	Support Paragraphs	Organization	Concluding Paragraph	Grammar	Mechanics	Research
28	4.0	4.0	4.0	4.0	4.0	4.0	4.0
27	4.0	4.0	4.0	4.0	4.0	4.0	3.0
26	4.0	4.0	4.0	3.0	4.0	4.0	3.0
25	4.0	4.0	3.8	3.8	3.3	3.3	3.0
24	4.0	3.0	3.0	3.0	4.0	4.0	3.0
23	4.0	4.0	3.0	3.0	3.0	3.0	3.0
22	4.0	3.5	3.0	3.0	3.0	3.0	2.5
21	3.0	3.0	3.0	3.0	3.0	3.0	3.0
20	2.9	3.0	3.0	2.9	3.0	2.9	2.2
19	3.0	2.8	2.8	2.7	2.7	2.3	2.7
18	2.8	3.0	3.0	2.8	2.3	2.3	2.0
17	2.6	2.9	2.8	2.1	2.1	2.3	2.3
16	2.5	2.2	2.4	2.2	2.3	2.3	2.1
15	2.8	2.3	2.0	2.3	2.0	2.0	1.8
14	2.1	2.0	2.0	2.0	2.0	2.0	2.0
≤ 13	1.9	2.0	1.9	1.9	1.5	1.5	1.5

1	2	3	4

Figure 3. Colormap of mean scores for each rubric dimension (range: 0-4) based on overall rubric score (combined rubric score of all dimensions, max=28) for ENC 0022. A rubric dimension with hotter colors (reds) means that dimension achievement exceeds the overall score and is an area of strength. An exam section with colder colors (blues) means that section achievement is lower than the overall score and is therefore an area of weakness.

A review of the colormap in Figure 3 above shows that Research achievement consistently lags behind all other dimensions when overall scores are 18/28 or higher. For example, at 18/28, the Research mean score is 2.2/4 while others range from 2.9/4 to 3.0/4. Similarly, at 25/28, the Research mean score is 3.0/4 while others range from 3.3/4 to 4/4. From a student performance perspective, all students are weak in the Research dimension compared with others.

The colormap also exhibits strong Introductory Paragraph scores compared with other dimensions at higher overall scores (22/28 or higher). For example, at 22/28, the Introductory Paragraph dimension mean score is 4.0/4 while others range from 2.5/4 to 3.5/4. From a student performance perspective, high moderate-to-high achieving students are strongest in Introductory Paragraph compared with other dimensions. This is also the case, but to a lesser extent, with Supporting Paragraphs.

A comparison of fall 2017 results with past results is shown in Figure 4 below. Results exhibit consistency across all areas except for Research, which exhibits a sharp decline in the most recent two terms.
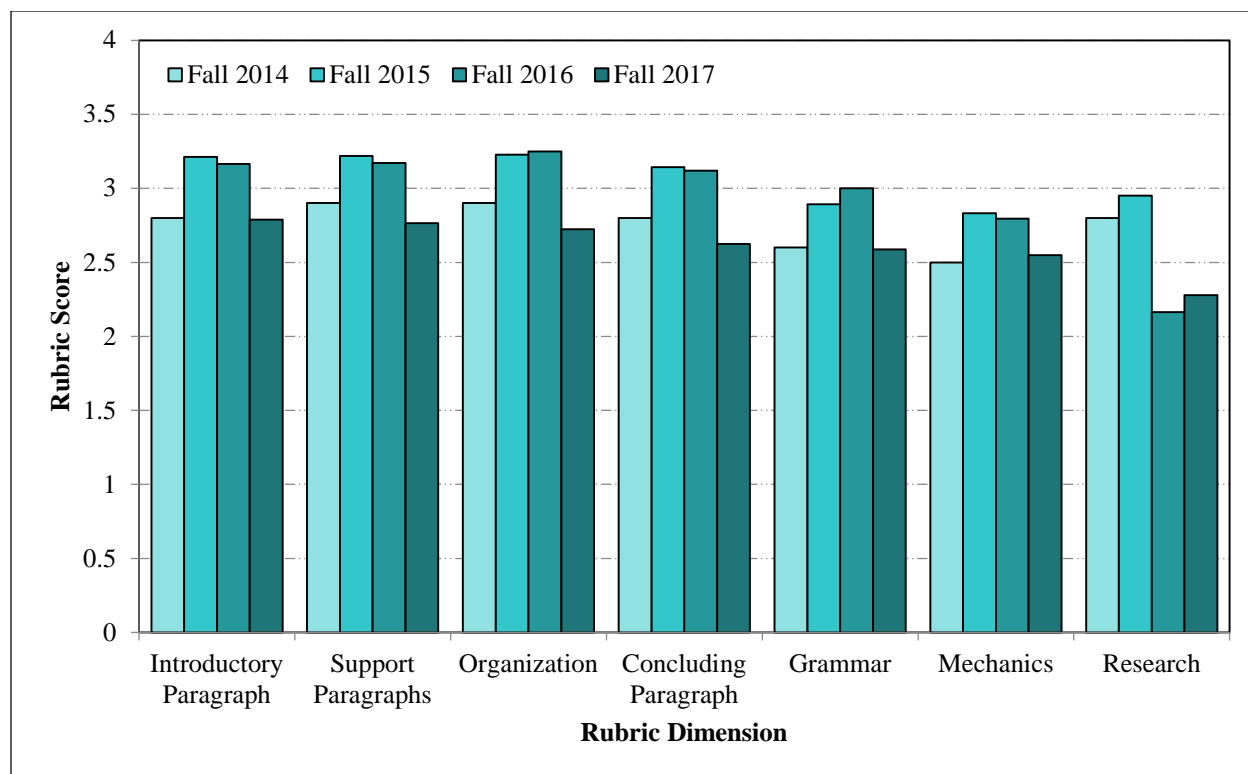
Figure 4. Comparison of mean scores for ENC 0022 through time.

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

Of the 117 artifacts collected from ENC 0022, 5 originated from the Hendry Glades Center, and 93 from the Thomas Edison (Lee) campus. Scores by rubric dimension varied greatly across campuses although sample size at Hendry Glades is limited (n=5). A comparison of mean scores by rubric dimension is provided in Table 3.

	Introductory Paragraph	Support Paragraphs	Organization	Concluding Paragraph	Grammar	Mechanics	Research
Hendry Glades	**3.2**	**3.6**	**3.4**	**3.2**	**3.4**	**3.4**	unreported
Thomas Edison (Lee)	2.8	2.7	2.7	2.6	2.6	2.5	2.3

Table 3. Comparison of mean scores by site for ENC 0022. Bold denotes highest mean score in that dimension among all sites.

Hendry Glades exhibits the highest scores in 6 of 7 dimensions, and Thomas Edison (Lee) exhibits the highest scores in 1 of 7 dimensions. A plot comparing descriptive statistics of the combined (overall) scores by site is typically presented, however, since Hendry Glades scores did not report Research scores no overall scores were tallied for that site and so no site comparison can be completed.

3 ENC 1101

3.1 LEARNING OUTCOMES, OBJECTIVES, & DESCRIPTIVE STATISTICS

Using common rubric criterion revised based on assessment results of AY 2016-17 as an assessment method, the FSW English faculty defined two areas of interest for evaluation based on core outcomes for the course. Using two revised common rubric dimensions, the outcomes include:

- ➢ SLO 1: Students must incorporate research into their own writing using summary, paraphrase, and direct quotation by composing academic research assignments.
    - o (5) Achieves Excellence: The student integrates and explicates relevant and credible sources in his or her academic research through summary, paraphrase, and direct quotation; (4) Exceeds Expectations: The student introduces and explicates relevant and credible sources in his or her academic research through summary, paraphrase, and direct quotation; (3) Meets Expectations: The student introduces and uses some relevant and credible sources in his or her academic research through some summary, paraphrase, and direct quotation; (2) Needs Improvement: The student identifies, but does little to include, relevant and credible sources in his or her academic research through minimal summary, paraphrase, and direct quotation; (1) Does Not Meet Expectations: The student does not include relevant and credible sources in his or her academic research and/or engage in summary, paraphrase, and direct quotation.
- ➢ SLO 2: Students must demonstrate the ability to organize, compose, revise, and edit essays with clear thesis statements, coherent, unified paragraphs, and varied sentence structures and length.
    - o (5) Achieves Excellence: The student develops and engages in a through process of drafting and revision to produce a composition with a clear thesis statement, unified paragraphs, and varied sentence structure and length; (4) Exceeds Expectations: The student develops and engages in a satisfactory process of drafting and revision to produce a composition with a clear thesis statement, unified paragraphs, and varied sentence structure and length; (3) Meets Expectations: The student mostly follows a process of drafting and revision to produce a composition with a thesis statement, unified paragraphs, and some varied sentence structure and length; (2) Needs Improvement: The student does minimal drafting and revision to produce a composition that is lacking in a clear thesis statement and/or unified paragraphs, and some varied sentence structure and length; (1) Does Not Meet Expectations: The student does not engage in drafting and revision and does not produce a composition that has a clear thesis statement, unified paragraphs, and/or varied sentence structure and length.

3.1.1 Learning Outcomes & Objectives

ENC 1101 is scored using a rubric with just two dimensions as listed above and herein referred to as SLO 1 and SLO 2. The English department has identified a target statistic for measurement purposes of

measuring the percentage of artifacts scoring a 2 or greater. For the fall 2017 assessment, 1106 artifacts were collected for ENC 1101 from 49 of 56 course sections sampled from 171 course sections offered. The remaining seven course sections did not report data. The resultant sample represents 29% of the population. The lowest scoring rubric dimension by percentage of artifacts scoring a 3 or greater is SLO 1 at 75% (Table 4). For a visual comparison of scores by dimension, see Figure 5.

Rubric Score	SLO 1	SLO 2
% Meets Expectations or Higher	**75%**	**78%**
5	18%	20%
4	29%	32%
3	28%	25%
2	12%	10%
1	11%	10%

Table 4. Percentage of student achievement level by rubric dimension (includes percentage of students scoring in developmental level or higher as per SLO) for ENC 1101.
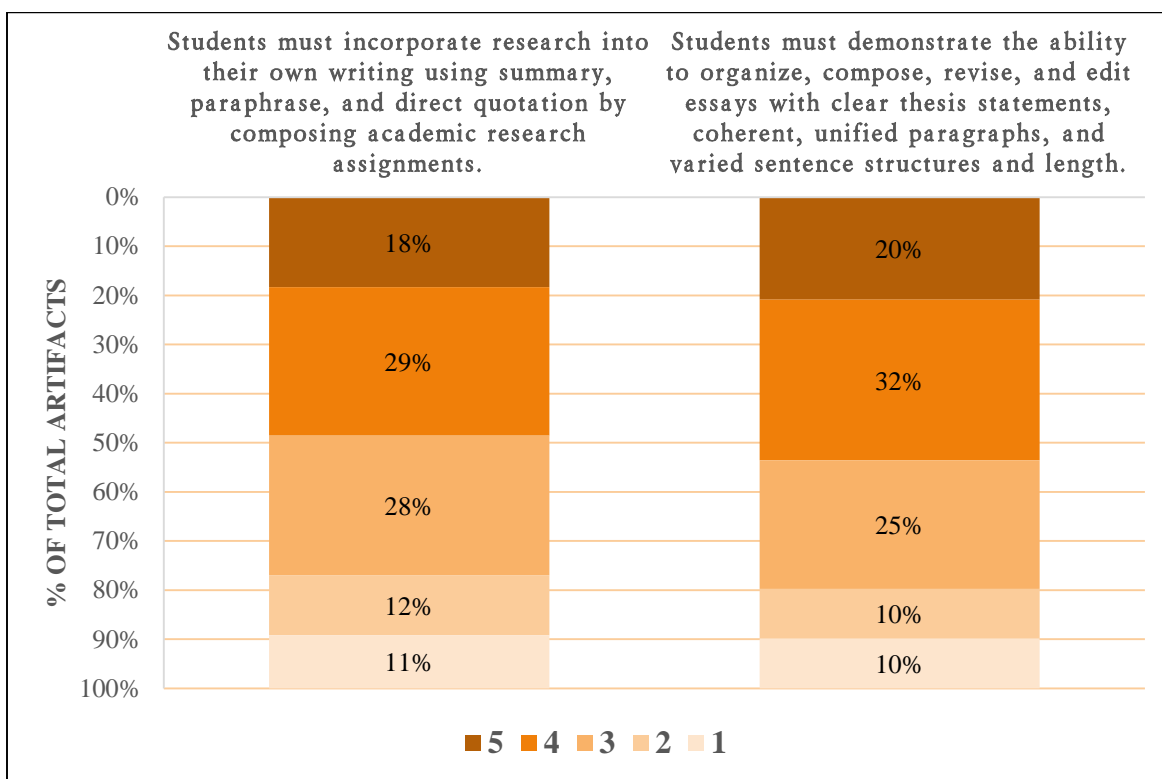
Figure 5. ENC 1101 distribution of rubric scores by dimension.

3.1.2   Descriptive Statistics

Descriptive statistics for ENC 1101 artifacts can be found in Table 5. The distributions of artifact scores for both SLOs are moderately negatively skewed, meaning scores are shifted towards the higher range.

	SLO 1	SLO 2
n	1102	1106
Mean	3.2	3.4
Standard deviation	1.31	1.32
Skewness	-0.54	-0.66
Kurtosis	-0.43	-0.28

Table 5. Descriptive statistics for ENC 1101 common course assessment.

3.2 COMPARISONS BY SITE, FORMAT, AND STUDENT TYPE

3.2.1 Dual Enrollment to non-Dual Enrollment Comparison

During the fall 2017 semester, 181 dual enrollment artifacts were collected in ENC 1101 and 852 traditional (non-online) artifacts were collected in ENC 1101. A comparison of achievement is provided in Table 6. A graphical representation is provided in Figures 6 and 7. The dual enrollment percentage meeting expectations or higher (Level 3 or higher) is 6% points higher than the traditional for SLO 1 and 3% points higher for SLO 2. Neither is statistically significant according to a Fisher's Exact Test.

Rubric Score	Dual Enrollment SLO 1	Traditional SLO 1	Dual Enrollment SLO 2	Traditional SLO 2
% Meets Expectations or Higher	81%	75%	82%	79%
5	14%	20%	29%	20%
4	44%	27%	39%	31%
3	24%	29%	15%	28%
2	12%	11%	9%	10%
1	7%	12%	9%	10%

Table 6. Comparison of percentage of student achievement level by rubric dimension by modality.
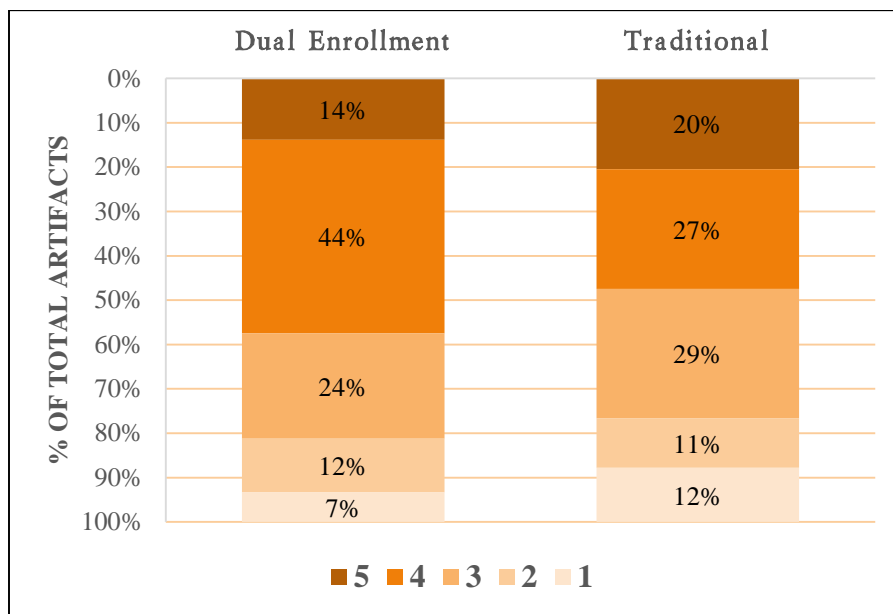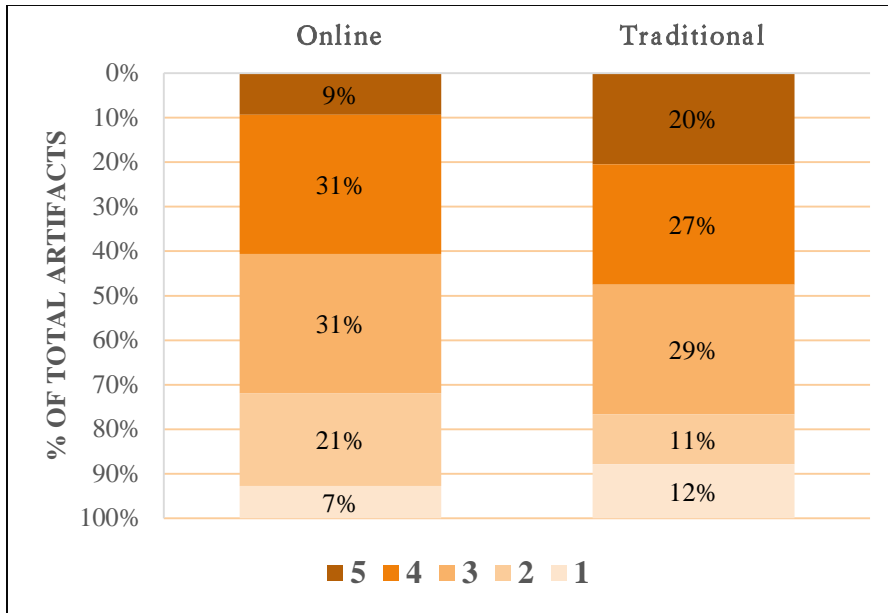

Figure 6. Comparison of distribution of rubric scores between Dual Enrollment and Traditional course sections for SLO 1: Students must incorporate research into their own writing using summary, paraphrase, and direct quotation by composing academic research assignments.
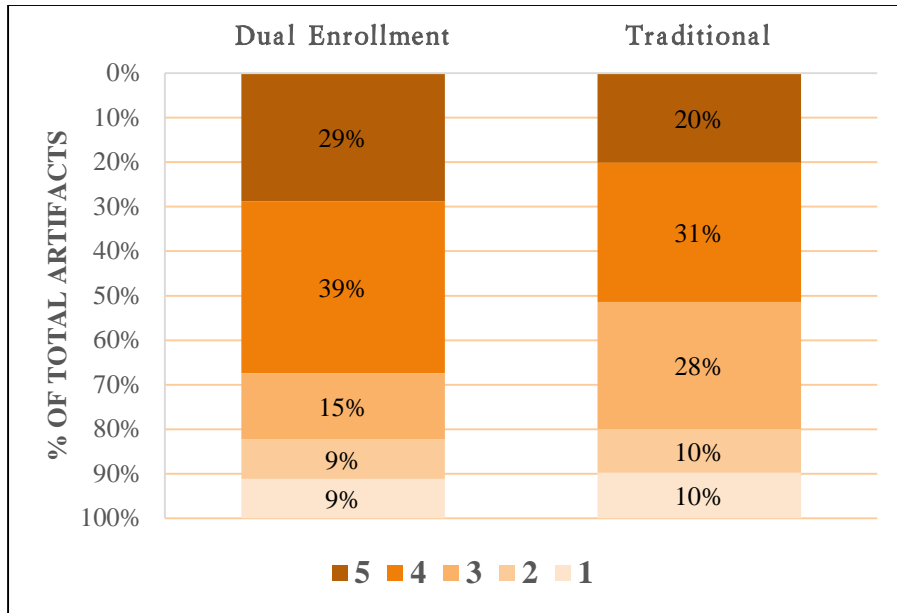
Figure 7. Comparison of distribution of rubric scores between Dual Enrollment and Traditional course sections for SLO 2: Students must demonstrate the ability to organize, compose, revise, and edit essays with clear thesis statements, coherent, unified paragraphs, and varied sentence structures and length.

3.2.2 Online to Traditional Comparison

During the fall 2017 semester, 112 online artifacts were collected in ENC 1101 and 852 traditional artifacts were collected in ENC 1101. A comparison of achievement is provided in Table 7. A graphical representation is provided in Figures 8 and 9. The online percentage meeting expectations or higher (Level 3 or higher) is 3% points lower than the traditional for SLO 1 and 6% points higher for SLO 2. Neither is statistically significant according to a Fisher's Exact Test.

Rubric Score	Online SLO 1	Traditional SLO 1	Online SLO 2	Traditional SLO 2
% Meets Expectations or Higher	72%	75%	73%	79%
5	9%	20%	13%	20%
4	31%	27%	33%	31%
3	31%	29%	27%	28%
2	21%	11%	16%	10%
1	7%	12%	11%	10%

Table 7. Comparison between Online and Traditional course sections of percentage of student achievement level by rubric dimension.

Figure 8. Comparison of distribution of rubric scores between Online and Traditional course sections for SLO 1: Students must incorporate research into their own writing using summary, paraphrase, and direct quotation by composing academic research assignments.
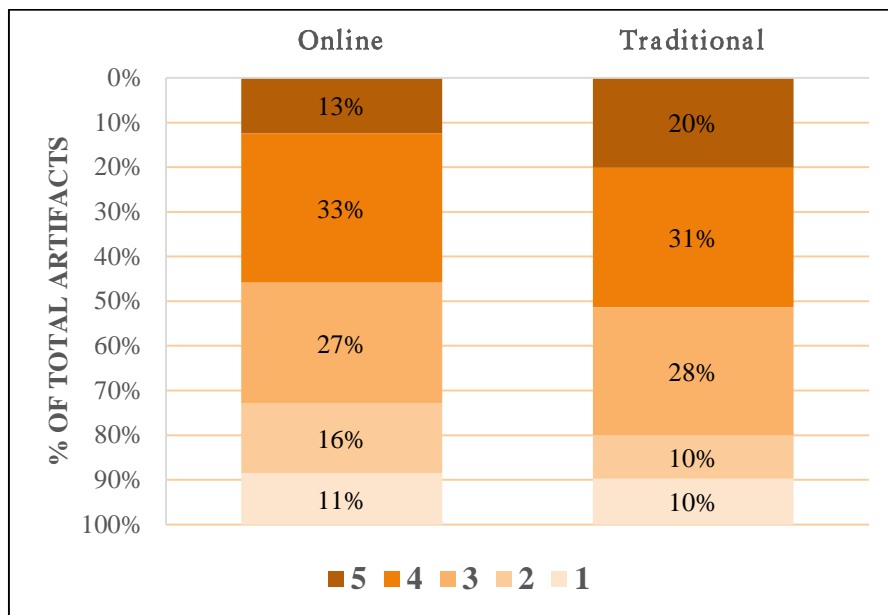

Figure 9. Comparison of distribution of rubric scores between Online and Traditional course sections for SLO 2: Students must demonstrate the ability to organize, compose, revise, and edit essays with clear thesis statements, coherent, unified paragraphs, and varied sentence structures and length.

3.2.3   Comparison by Site/Campus

Of the 1106 artifacts collected from ENC 1101, 63 originated from the Charlotte campus, 123 from the Collier campus, 112 from FSW Online, 42 from the Hendry Glades Center, 624 from the Thomas Edison (Lee) campus, and 181 from offsite (dual enrollment). A comparison of achievement is provided in Table 8 for SLO 1 and Table 9 for SLO 2. A graphical representation is provided in Figures 10 and 11. For SLO 1,

the Charlotte campus exhibits the highest percentage meeting expectations or higher (Level 3 or higher) at 88%. The Hendry Glades Center exhibits the lowest at 67%. For SLO 2, again the Charlotte campus exhibits the highest percentage meeting expectations or higher (Level 3 or higher) at 88%. And again, the Hendry Glades Center exhibits the lowest at 62%. Based on results of a chi-squared test for independence, achievement across sites for SLO 2 is statistically significantly different (χ^2=15.28, 5 d.f., P=0.009).

Rubric Score	Charlotte	Collier	FSW Online	Hendry Glades	Thomas Edison	Offsite (Dual Enrollment)
% Meets Expectations or Higher	**88%**	**75%**	**72%**	**67%**	**76%**	**81%**
5	40%	16%	9%	24%	19%	14%
4	26%	26%	31%	26%	27%	44%
3	22%	34%	31%	17%	30%	24%
2	9%	11%	21%	2%	12%	12%
1	3%	14%	7%	31%	11%	7%

Table 8. Comparison between sites of percentage of student achievement level by rubric dimension for SLO 1.
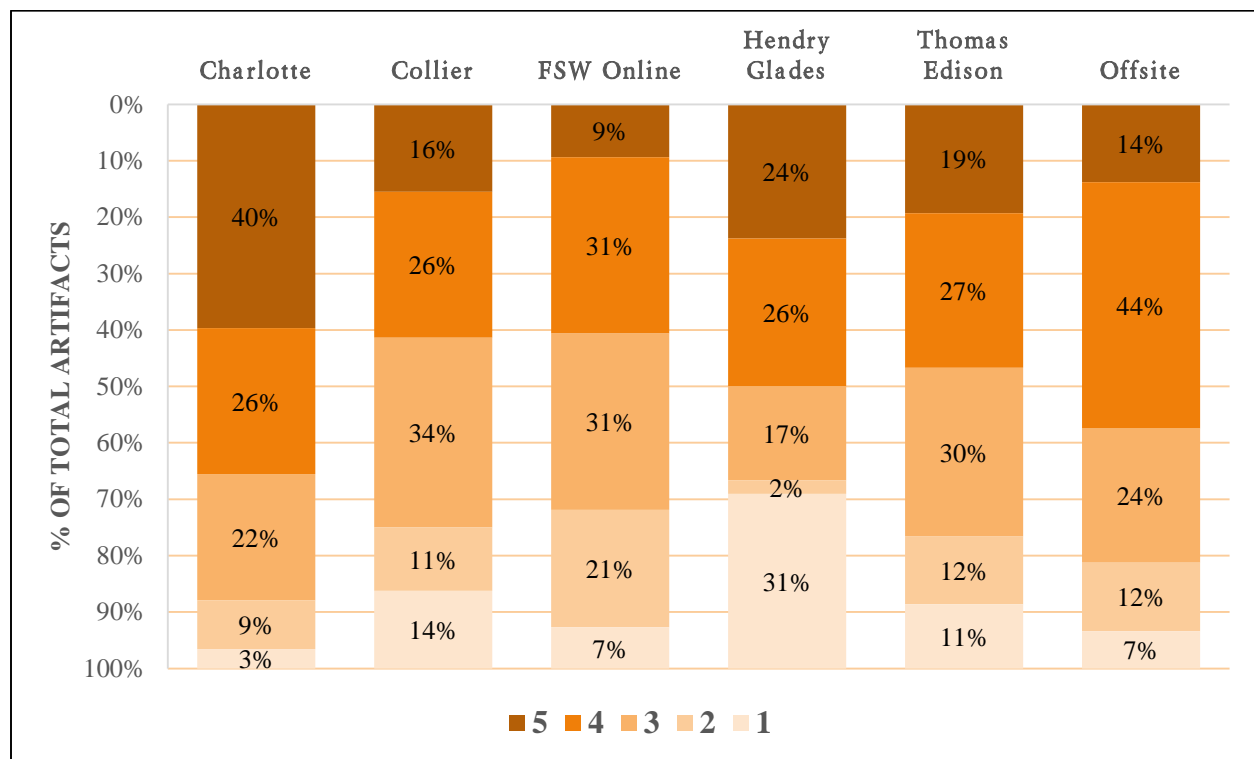
Figure 10. Comparison of distribution of rubric scores between sites for SLO 1: Students must incorporate research into their own writing using summary, paraphrase, and direct quotation by composing academic research assignments.

Rubric Score	Charlotte	Collier	FSW Online	Hendry Glades	Thomas Edison	Offsite (Dual Enrollment)
% Meets Expectations or Higher	**88%**	**84%**	**73%**	**62%**	**80%**	**82%**
5	40%	12%	13%	17%	20%	29%
4	31%	36%	33%	26%	31%	39%
3	17%	35%	27%	19%	29%	15%
2	9%	6%	16%	5%	11%	9%
1	3%	10%	11%	33%	9%	9%

Table 9. Comparison between sites of percentage of student achievement level by rubric dimension for SLO 2.
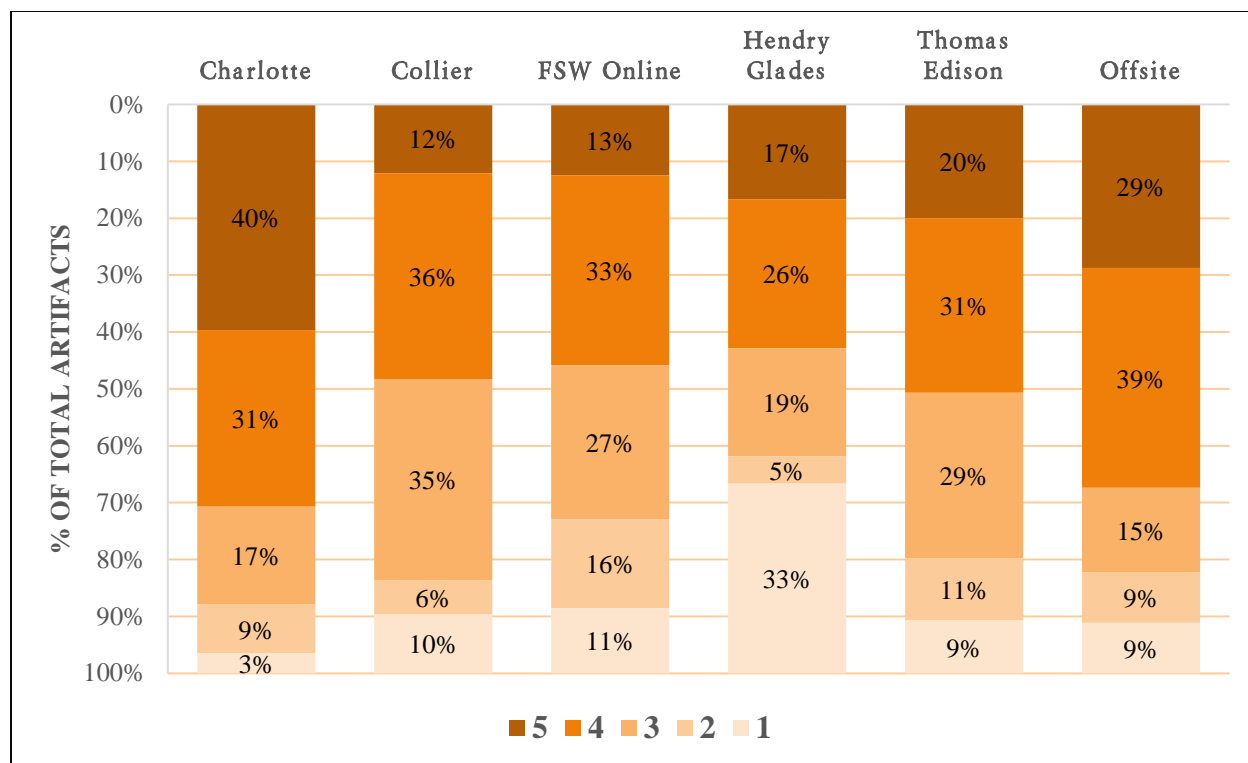
Figure 11. Comparison of distribution of rubric scores between sites for SLO 2: Students must demonstrate the ability to organize, compose, revise, and edit essays with clear thesis statements, coherent, unified paragraphs, and varied sentence structures and length.

4 LIT 2000

4.1 LEARNING OUTCOMES, OBJECTIVES, & DESCRIPTIVE STATISTICS

Using common rubric criterion developed prior to the start of AY 2017-2018 as an assessment method, the FSW English faculty defined two areas of interest for evaluation based on core outcomes for the course. Using two revised common rubric dimensions, the outcomes include:

➢ SLO 1: Students will analyze literary works' exploration of the human condition and the ethical and cultural problems of their time. They will also consider how such issues continue to resonate in the contemporary world.
  o (5) Achieves Excellence; (4) Exceeds Expectations; (3) Meets Expectations; (2) Needs Improvement; (1) Does Not Meet Expectations.
➢ SLO 2: Students must evaluate and interpret literary works from ethical, social, cultural, historical, philosophical, artistic, and/or biographical perspectives.
  o (5) Achieves Excellence; (4) Exceeds Expectations; (3) Meets Expectations; (2) Needs Improvement; (1) Does Not Meet Expectations.

4.1.1 Learning Outcomes & Objectives

LIT 2000 is scored using a rubric with just two dimensions as listed above and herein referred to as SLO 1 and SLO 2. The English department has identified a target statistic for measurement purposes of

measuring the percentage of artifacts scoring a 2 or greater. For the fall 2017 assessment, 84 artifacts were collected for LIT 2000 from 4 of 5 course sections sampled from 13 course sections offered. The remaining course section did not report data. The resultant sample represents 28% of the population. The lowest scoring rubric dimension by percentage of artifacts scoring a 3 or greater is SLO 2 at 74% (Table 10). For a visual comparison of scores by dimension, see Figure 12.

Rubric Score	SLO 1	SLO 2
% Meets Expectations or Higher	**77%**	**74%**
5	17%	18%
4	36%	32%
3	25%	24%
2	12%	15%
1	11%	11%

Table 10. Percentage of student achievement level by rubric dimension (includes percentage of students scoring in developmental level or higher as per SLO) for LIT 2000.
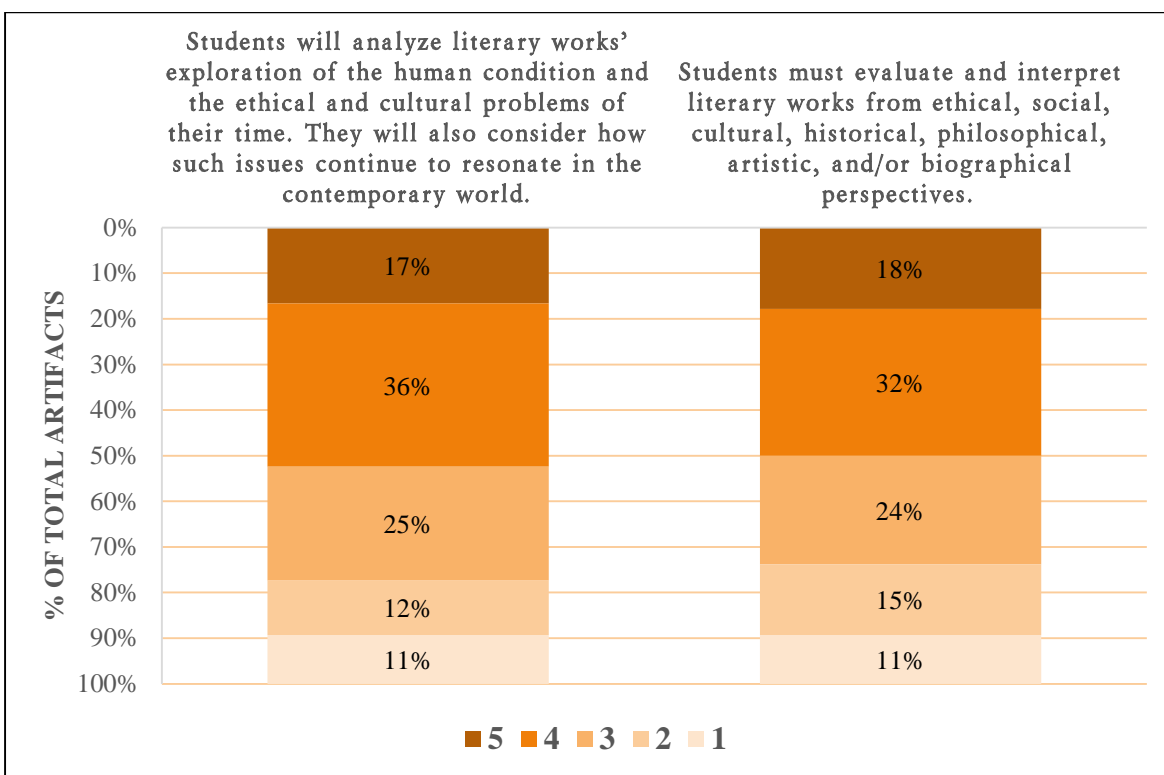
Figure 12. LIT 2000 distribution of rubric scores by dimension.

4.1.2 Descriptive Statistics

Descriptive statistics for LIT 2000 artifacts can be found in Table 11. Distribution of artifact scores is moderately negatively skewed, meaning scores are shifted towards the higher range.

	SLO 1	SLO 2
n	84	84
Mean	3.4	3.3
Standard deviation	1.21	1.24
Skewness	-0.52	-0.38
Kurtosis	-0.57	-0.81

Table 11. Descriptive statistics for LIT 2000 common course assessment.

4.2 COMPARISONS BY SITE, FORMAT, AND STUDENT TYPE

4.2.1   Dual Enrollment to non-Dual Enrollment Comparison

No dual enrollment sections were offered during the fall 2017 semester, so no comparison study could be completed.

4.2.2   Online to Traditional Comparison

During the fall 2017 semester, 20 online artifacts were collected in LIT 2000 and 59 traditional artifacts were collected in LIT 2000. A comparison of achievement is provided in Table 12. A graphical representation is provided in Figures 13 and 14. The online percentage meeting expectations or higher (Level 3 or higher) is 4% points higher than the traditional for SLO 1 and 5% points lower for SLO 2. Neither is statistically significant according to a Fisher's Exact Test.

Rubric Score	Online SLO 1	Traditional SLO 1	Online SLO 2	Traditional SLO 2
% Meets Expectations or Higher	85%	81%	75%	80%
5	10%	20%	25%	17%
4	45%	36%	25%	37%
3	30%	25%	25%	25%
2	10%	14%	25%	14%
1	5%	14%	0%	15%

Table 12. Comparison between Online and Traditional course sections of percentage of student achievement level by rubric dimension.
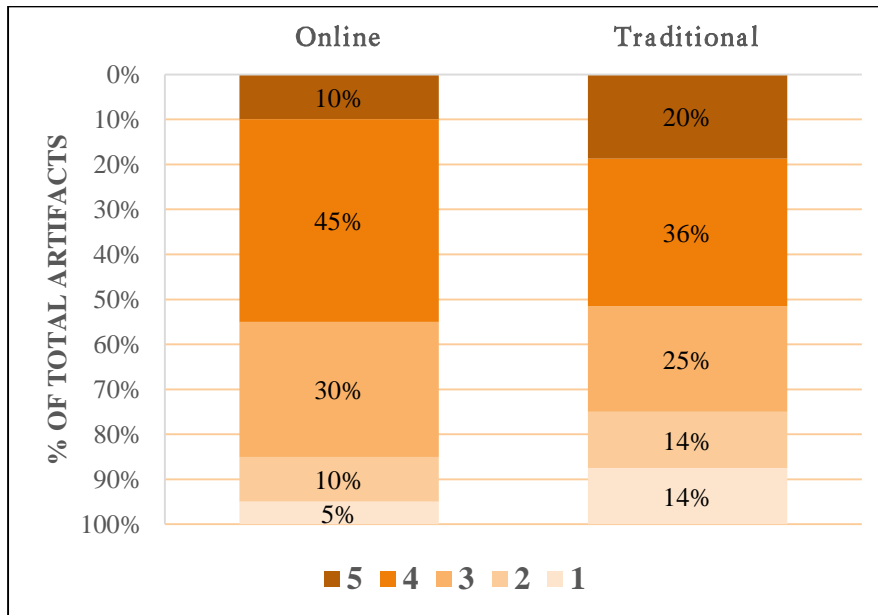
Figure 13. Comparison of distribution of rubric scores between Online and Traditional course sections for SLO 1: Students will analyze literary works' exploration of the human condition and the ethical and cultural problems of their time. They will also consider how such issues continue to resonate in the contemporary world.
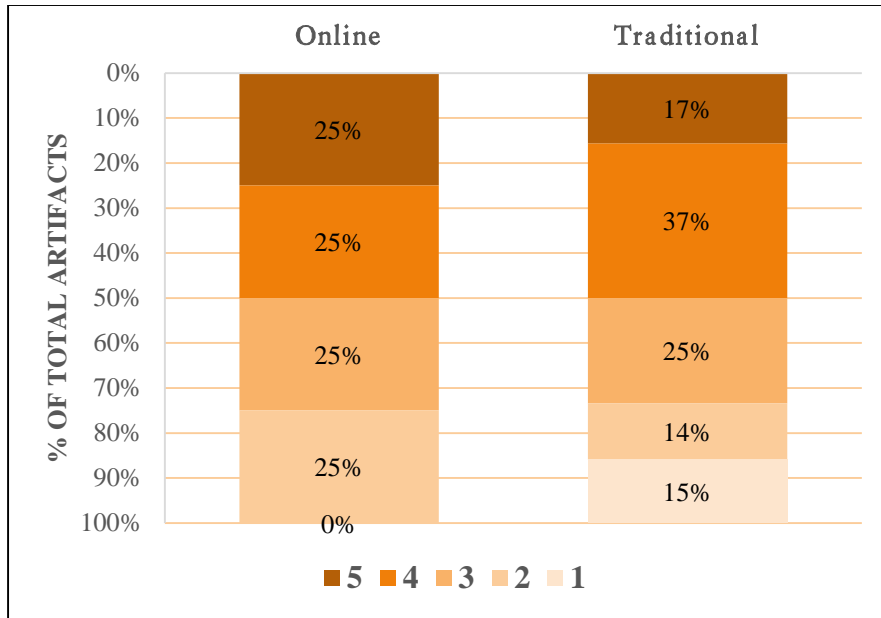
Figure 14. Comparison of distribution of rubric scores between Online and Traditional course sections for SLO 2: Students must evaluate and interpret literary works from ethical, social, cultural, historical, philosophical, artistic, and/or biographical perspectives.

4.2.3   Comparison by Site/Campus

Of the 84 artifacts collected from LIT 2000, 21 from the Collier campus, 20 from FSW Online, and 43 from the Thomas Edison (Lee) campus. A comparison of achievement is provided in Table 13 for SLO 1 and Table 14 for SLO 2. A graphical representation is provided in Figures 15 and 16. For SLO 1, the Thomas Edison campus exhibits the highest percentage meeting expectations or higher (Level 3 or higher) at 95%. The Collier campus exhibits the lowest at 33%. For SLO 2, again the Thomas Edison campus exhibits the highest percentage meeting expectations or higher (Level 3 or higher) at 95%. And again, the Collier campus exhibits the lowest at 29%.   Based on results of a chi-squared test for independence, achievement across sites for SLO 1 and SLO 2 are statistically significantly different (SLO 1: χ^2=31.87, 2 d.f., P=1.20x10^{-7}; SLO 2: χ^2=32.57, 2 d.f., P=8.48x10^{-8}).

Rubric Score	Charlotte	Collier	FSW Online	Hendry Glades	Thomas Edison	Offsite (Dual Enrollment)
% Meets Expectations or Higher	~	**33%**	**85%**	~	**95%**	~
5	~	10%	10%	~	23%	~
4	~	5%	45%	~	47%	~
3	~	19%	30%	~	26%	~
2	~	29%	10%	~	5%	~
1	~	38%	5%	~	0%	~

Table 13. Comparison between sites of percentage of student achievement level by rubric dimension for SLO 1.
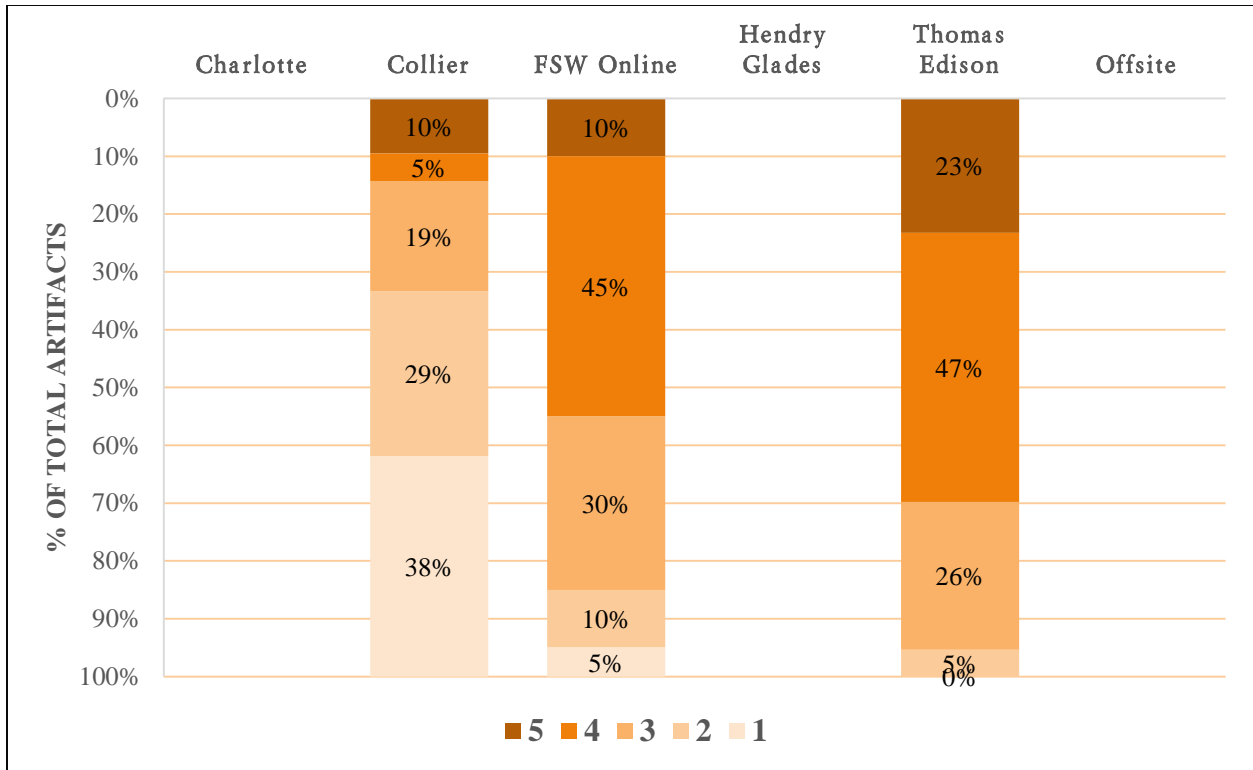
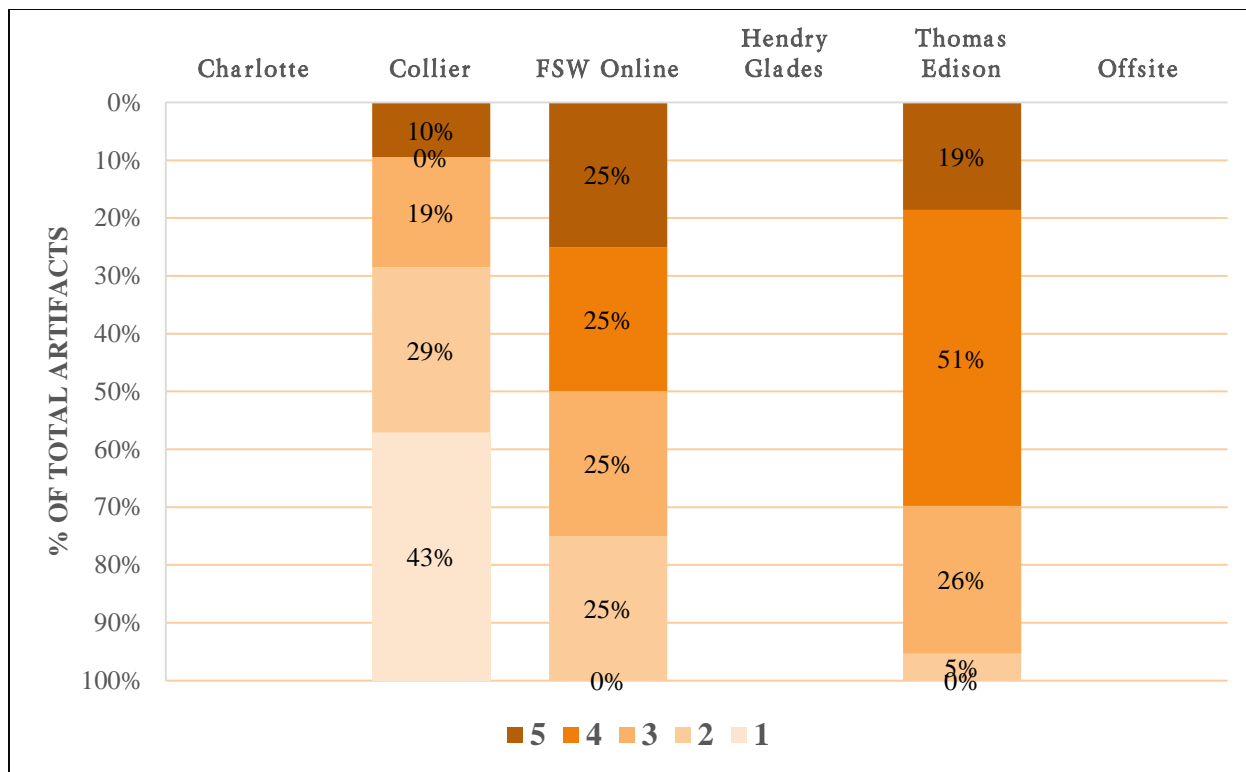*Figure 15. Comparison of distribution of rubric scores between sites for SLO 1: Students will analyze literary works' exploration of the human condition and the ethical and cultural problems of their time. They will also consider how such issues continue to resonate in the contemporary world.*

Rubric Score	Charlotte	Collier	FSW Online	Hendry Glades	Thomas Edison	Offsite (Dual Enrollment)
% Meets Expectations or Higher	**~**	**29%**	**75%**	**~**	**95%**	**~**
5	~	10%	25%	~	19%	~
4	~	0%	25%	~	51%	~
3	~	19%	25%	~	26%	~
2	~	29%	25%	~	5%	~
1	~	43%	0%	~	0%	~

Table 14. Comparison between sites of percentage of student achievement level by rubric dimension for SLO 2.

Figure 16. Comparison of distribution of rubric scores between sites for SLO 2: Students must evaluate and interpret literary works from ethical, social, cultural, historical, philosophical, artistic, and/or biographical perspectives.

5 CONCLUSIONS

FSW's English Department assessment plan includes three courses: ENC 0022 *Writing for College Success*, ENC 1101 *Composition I*, and LIT 2000 *Introduction to Literature*. Instructors use a common rubric with seven identified rubric dimensions in the case of ENC 0022, an updated rubric in response to the AY 2016-2017 assessment results with two dimensions for ENC 1101, and a two dimension rubric for an initial study of LIT 2000. The assessment plan uses a random sample of 30% of all course sections offered in ENC 1101 and LIT 2000 and a 100% collection of ENC 0022 courses. 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 ≥ 80% achievement at level 2 or higher. The lowest dimension was Research at 89%, while all other dimensions exceeded 94%.
2. Distribution of artifact scores is bimodal centered on 14/28 and 20/28, and is moderately positively skewed, meaning scores are shifted towards the lower range.
3. In a study comparing rubric achievement based on overall score, high moderate-to-high achieving students are strongest in Introductory Paragraph compared with other dimensions. This is also the case, but to a lesser extent, with Supporting Paragraphs.
4. In a longitudinal study, results exhibit consistency across all areas except for Research, which exhibits a sharp decline in the most recent two terms.

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. In a cross-campus comparison, scores varied greatly across rubric dimensions. Hendry Glades exhibits the highest scores in 6 of 7 dimensions, and Thomas Edison (Lee) exhibits the highest scores in 1 of 7 dimensions. A plot comparing descriptive statistics of the combined (overall) scores by site is typically presented, however, since Hendry Glades scores did not report Research scores no overall scores were tallied for that site and so no site comparison can be completed.

A drilldown of ENC 1101 results are as follows:
1. In a study of SLO 1: Students must incorporate research into their own writing using summary, paraphrase, and direct quotation by composing academic research assignments, 75% of artifacts meet expectations.
2. In a study of SLO 2: Students must demonstrate the ability to organize, compose, revise, and edit essays with clear thesis statements, coherent, unified paragraphs, and varied sentence structures and length, 78% of artifacts meet expectations.
3. In a study comparing dual enrollment to traditional (non-online) artifacts, the dual enrollment percentage meeting expectations or higher (Level 3 or higher) is 6% points higher than the traditional for SLO 1 and 3% points higher for SLO 2. Neither is statistically significant according to a Fisher's Exact Test.
4. In a study comparing online to traditional artifacts, the online percentage meeting expectations or higher (Level 3 or higher) is 3% points lower than the traditional for SLO 1 and 6% points higher for SLO 2. Neither is statistically significant according to a Fisher's Exact Test.
5. In a cross-campus comparison, scores varied greatly across rubric dimensions. For SLO 1, the Charlotte campus exhibits the highest percentage meeting expectations or higher (Level 3 or higher) at 88%. The Hendry Glades Center exhibits the lowest at 67%. For SLO 2, again the Charlotte campus exhibits the highest percentage meeting expectations or higher (Level 3 or higher) at 88%. And again, the Hendry Glades Center exhibits the lowest at 62%. Based on results of a chi-squared test for independence, achievement across sites for SLO 2 is statistically significantly different (χ^2=15.28, 5 d.f., P=0.009).

A drilldown of LIT 2000 results are as follows:
1. In a study of SLO 1: Students will analyze literary works' exploration of the human condition and the ethical and cultural problems of their time. They will also consider how such issues continue to resonate in the contemporary world, 77% of artifacts meet expectations.
2. In a study of SLO 2: Students must evaluate and interpret literary works from ethical, social, cultural, historical, philosophical, artistic, and/or biographical perspectives, 74% of artifacts meet expectations.
3. No dual enrollment sections were offered during the fall 2017 semester, so no comparison study could be completed.
4. In a study comparing online to traditional artifacts, the online percentage meeting expectations or higher (Level 3 or higher) is 4% points higher than the traditional for SLO 1 and 5% points lower for SLO 2. Neither is statistically significant according to a Fisher's Exact Test.

5. In a cross-campus comparison, scores varied greatly across rubric dimensions. For SLO 1, the Thomas Edison campus exhibits the highest percentage meeting expectations or higher (Level 3 or higher) at 95%. The Collier campus exhibits the lowest at 33%. For SLO 2, again the Thomas Edison campus exhibits the highest percentage meeting expectations or higher (Level 3 or higher) at 95%. And again, the Collier campus exhibits the lowest at 29%. Based on results of a chi-squared test for independence, achievement across sites for SLO 1 and SLO 2 are statistically significantly different (SLO 1: χ^2=31.87, 2 d.f., P=1.20x10^{-7}; SLO 2: χ^2=32.57, 2 d.f., P=8.48x10^{-8}).

6 REFERENCES

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

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

Johnson, V. 2013. Revised Standards for Statistical Evidence. Proceedings of the National Academy of Science, 110(48), 19313-19317.

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

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

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

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

Florida SouthWestern State College's assessment plan includes 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 fall 2017 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, 3-Average, 2-Needs Work, 1-Unacceptable). Artifacts from 141 students were reported for fall 2017 with 8 of 10 sections reporting objective sections and 8 of 10 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.
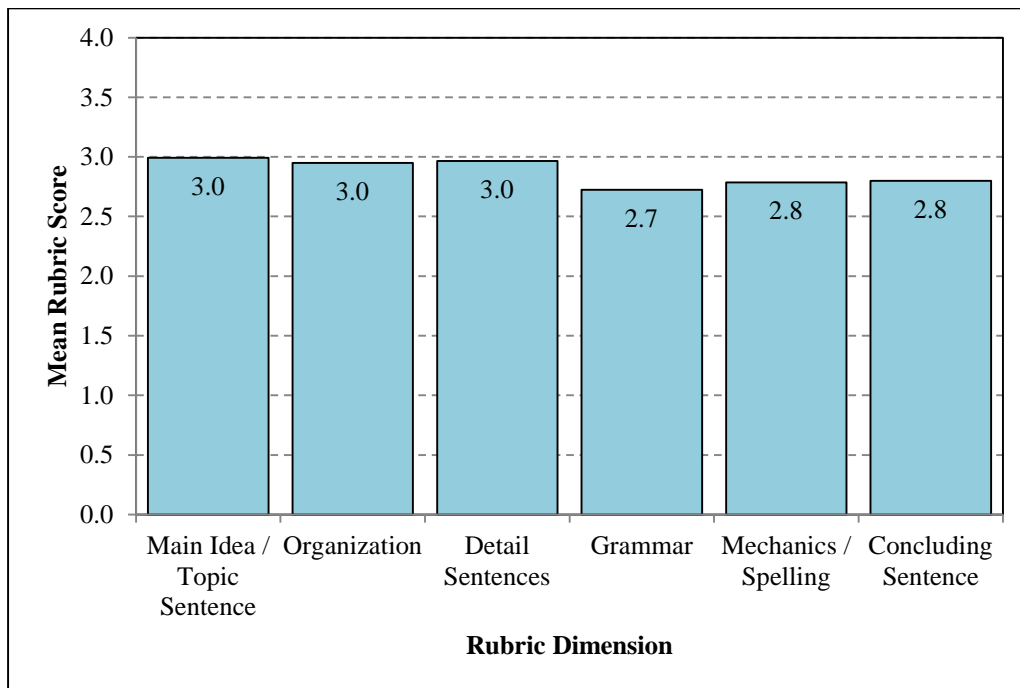
Figure 1. ENC 0022 Final Exam written section mean rubric scores for fall 2017.
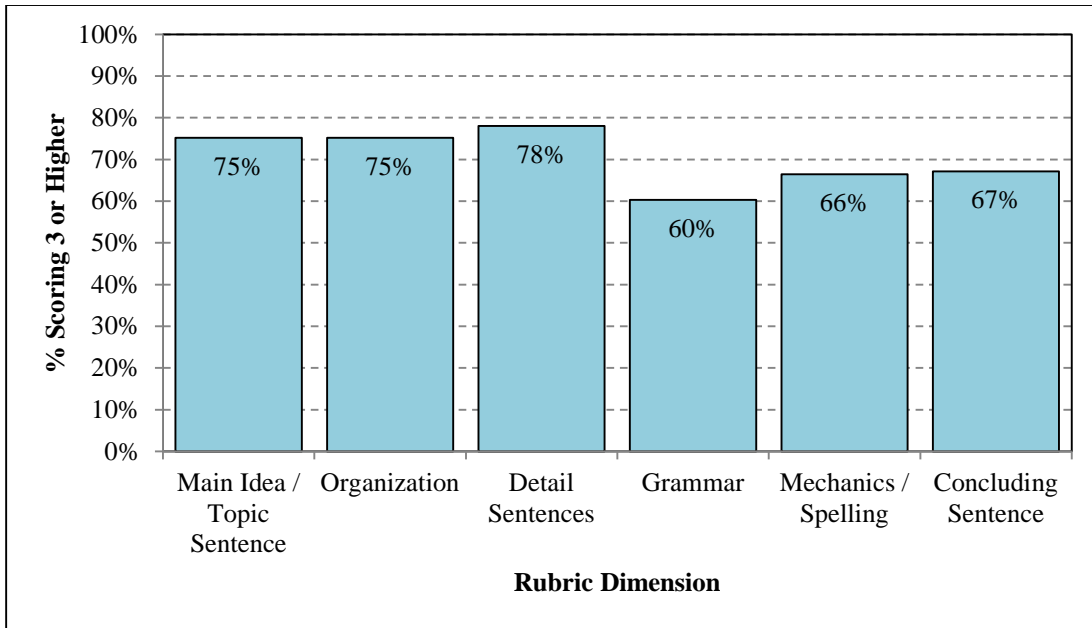
Figure 2. Percentage of fall 2017 artifacts scored 3 or higher on written section of ENC 0022 final exam.

While 141 artifacts were reported for the written section of the exam, 126 common artifacts 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 be statistically significantly different (t(265) = 2.14, p = 0.033). 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. There is a 17-25% chance that the marginally significant result may be false positives (i.e. Type I errors)[5].
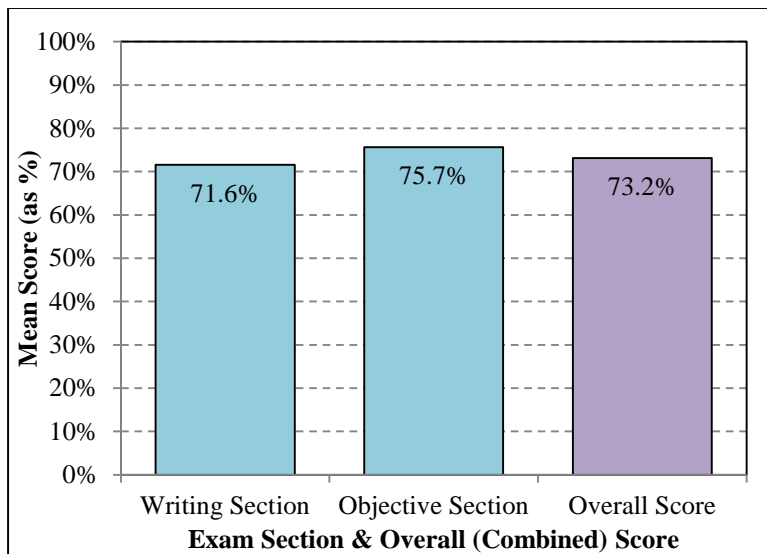
Figure 3. Mean scores by exam section and overall score for the fall 2017 ENC 0022 final exam.

Of the 126 common (objective & written) artifacts collected from the final exam, 120 originate from the compressed learning strategy version of the course while 5 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 not tested for significance due to limited sample size for the modularized strategy (n=5).
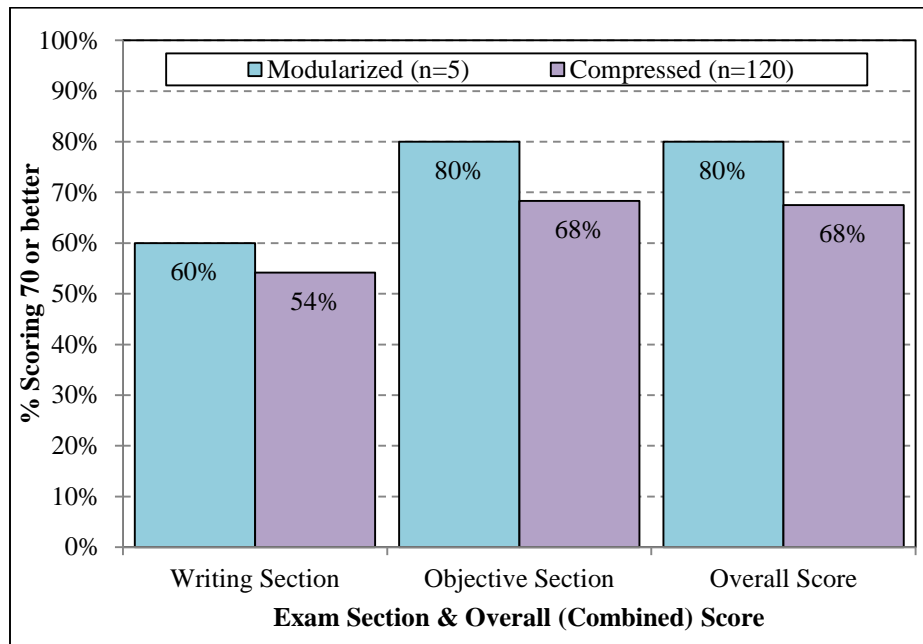

Figure 4. Comparison of fall 2017 exam section and overall scores by learning strategy.

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 80%, with sample size of n=5. The percentage of artifacts scored 70% or better on the final exam originating from compressed sections is 68%, with sample size of n=120.

A longitudinal study exhibits a varied level of achievement overall with a slight decline over time. Fall term exam success rates decline consistently from 78% in fall 2014 to 68% in fall 2017. These trends are not exhibited consistently when disaggregated by learning strategy.
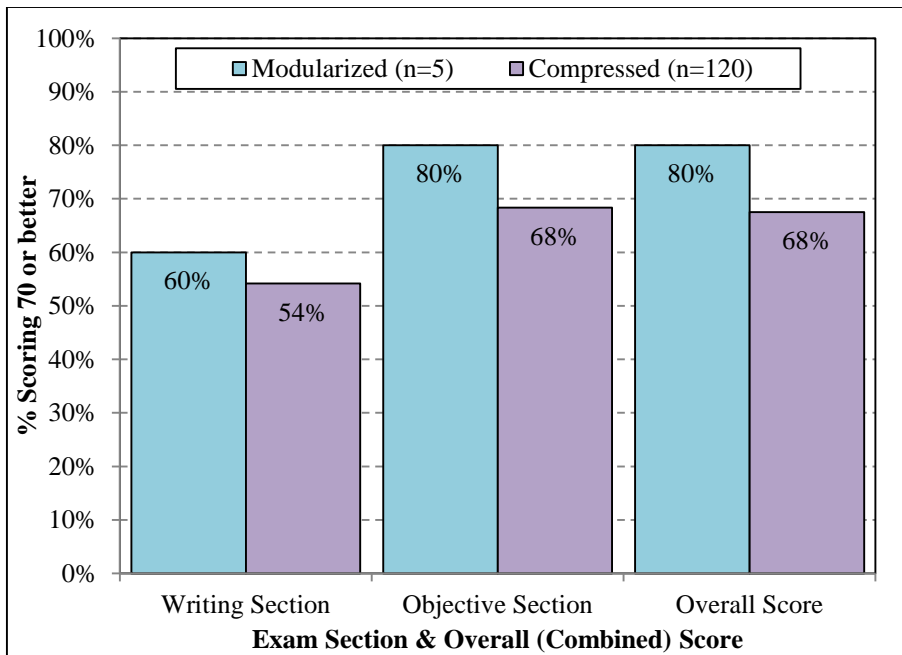
Figure 5. Fall 2017 ENC 0022 final exam success rate (≥70%) by section and learning strategy.
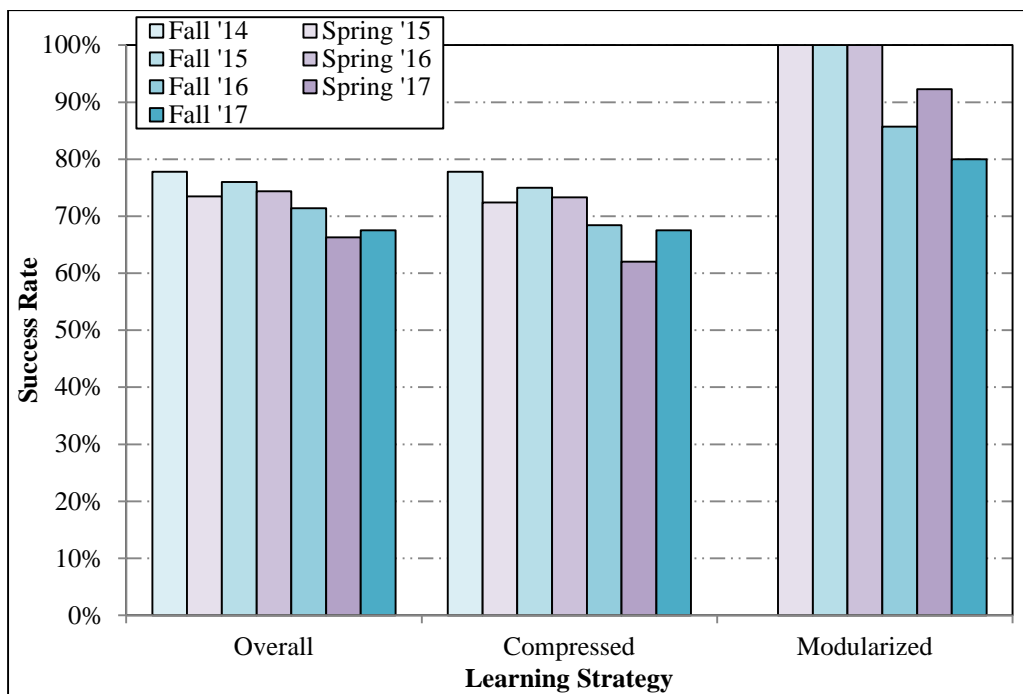

Figure 6. Comparison of ENC 0022 final exam success rates over time. Success rate is achievement at 70% or higher.

[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.

[5]Johnson, V. 2013. Revised Standards for Statistical Evidence. Proceedings of the National Academy of Science, 110(48), 19313-19317.

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 developmental accountability plan to determine efficacy of developmental options and to inform course and program improvement. The following are the results for the fall 2017 term.

Of the 193 students enrolled in ENC 0022 during fall 2017, 18 responded to the survey for a response rate of 9%, down from 11% in spring 2017 and 14% in both fall 2016 and spring 2016. Of the 18 respondents, 89% were enrolled in the traditional (compressed) classroom learning strategy, while 11% were enrolled in the computer assisted (modularized) learning strategy (Figure 1).
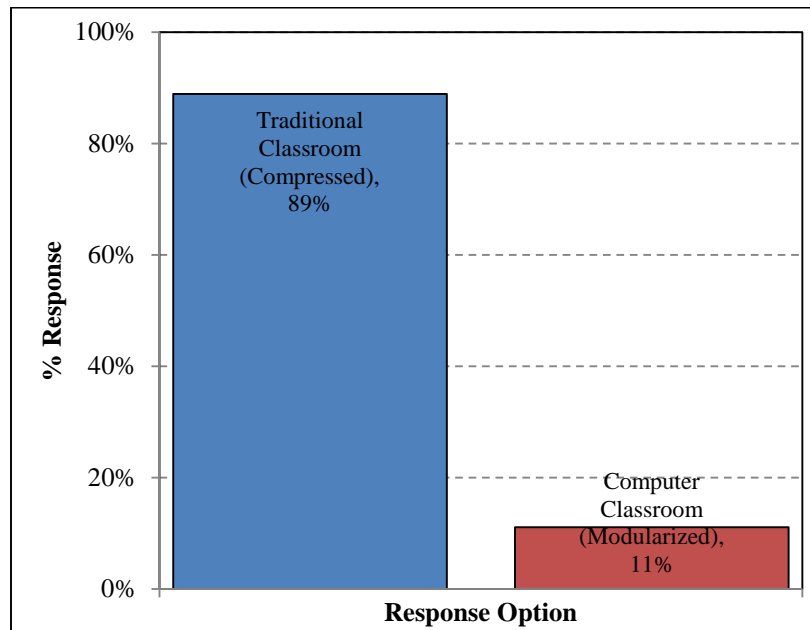

Figure 1. Response rate by learning strategy.

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*
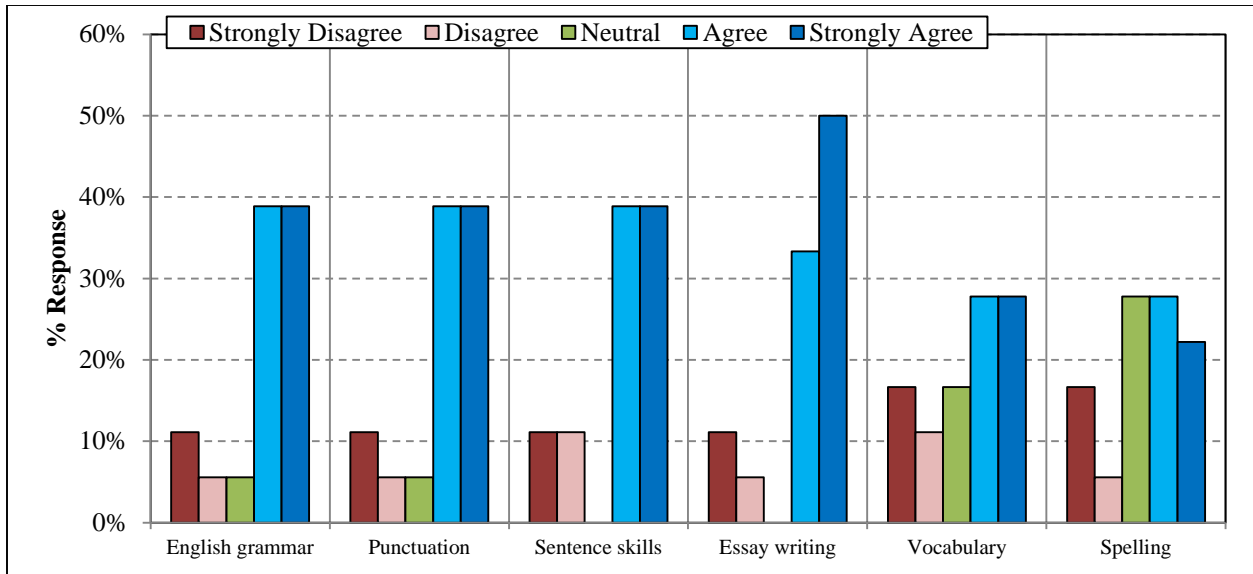5. *Vocabulary*
6. *Spelling*

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 50% or higher. Question 7-4 exhibits a positive response rate of 83%. No question exhibits a negative response rates (Disagree or Strongly Disagree) greater than 23%. The below are 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*
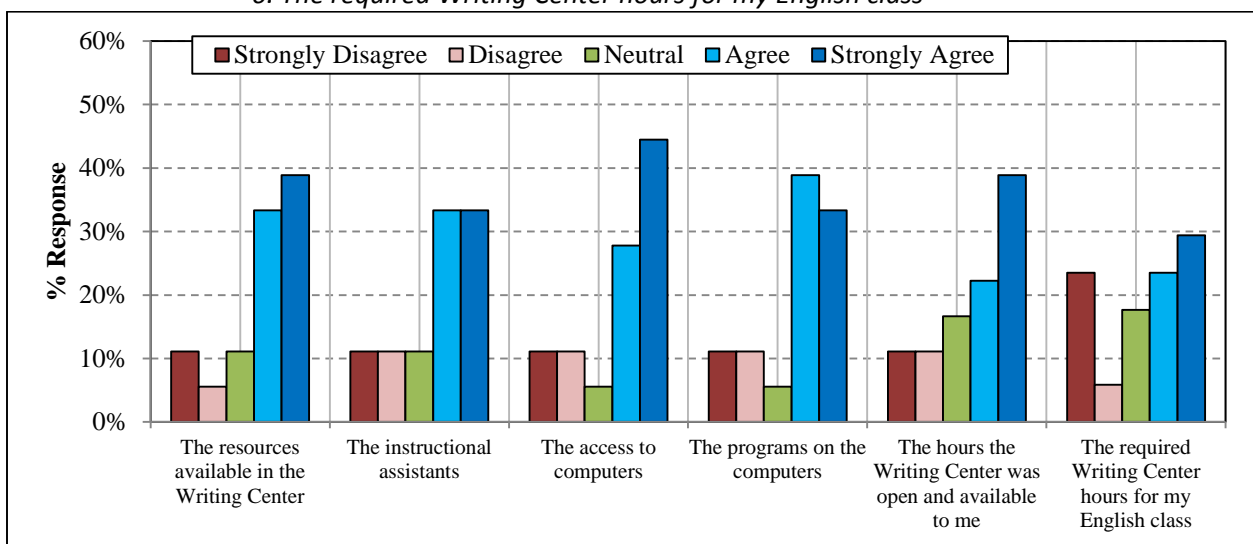> > *6. The required Writing Center hours for my English class*

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 50% or better. Question 8-4 and 8-5 exhibit positive response rates of 70% or better. The largest negative response rate (Disagree or Strongly Disagree) is Q8-6 at 30%, up from 6% in spring 2017 and is the high dating back to fall 2014.

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*
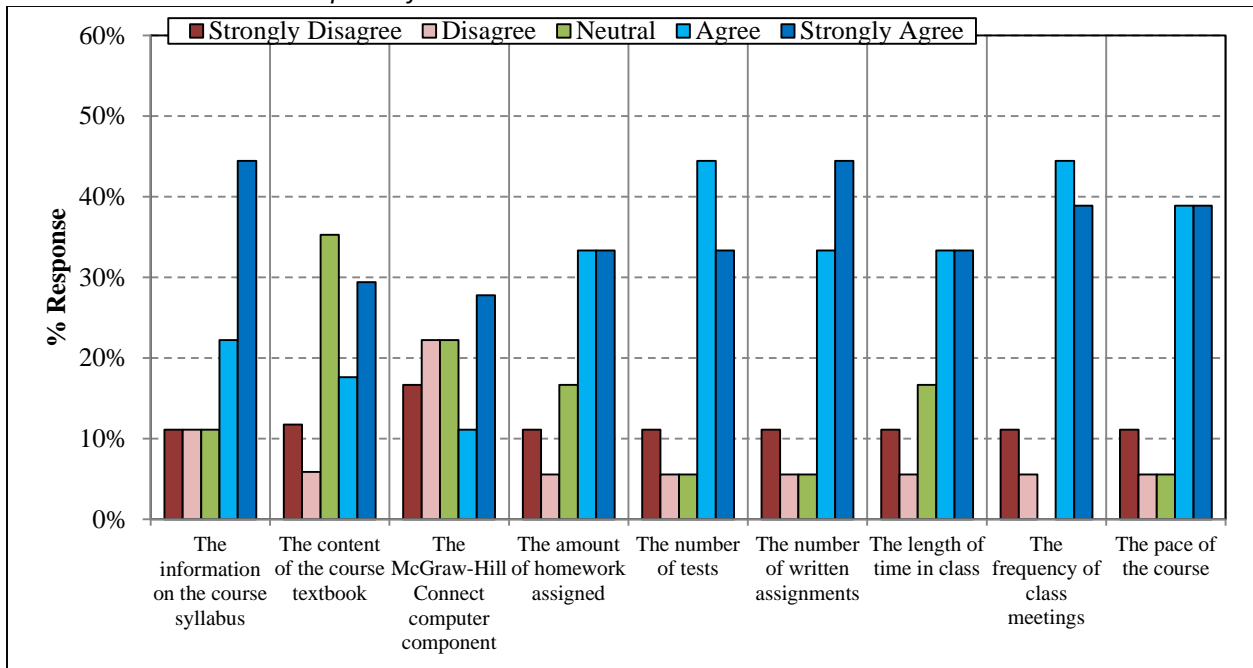> > *9. The pace of the course*

Figure 4. Responses to Question #9 "I was satisfied with the following aspects of my English class this semester."

Seven of nine areas exhibit positive responses (Agree or Strongly Agree) of 65% or better. Question 9-3 exhibits a positive response rate of only 39%. Question 9-2 is only slightly better at 47%.

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*
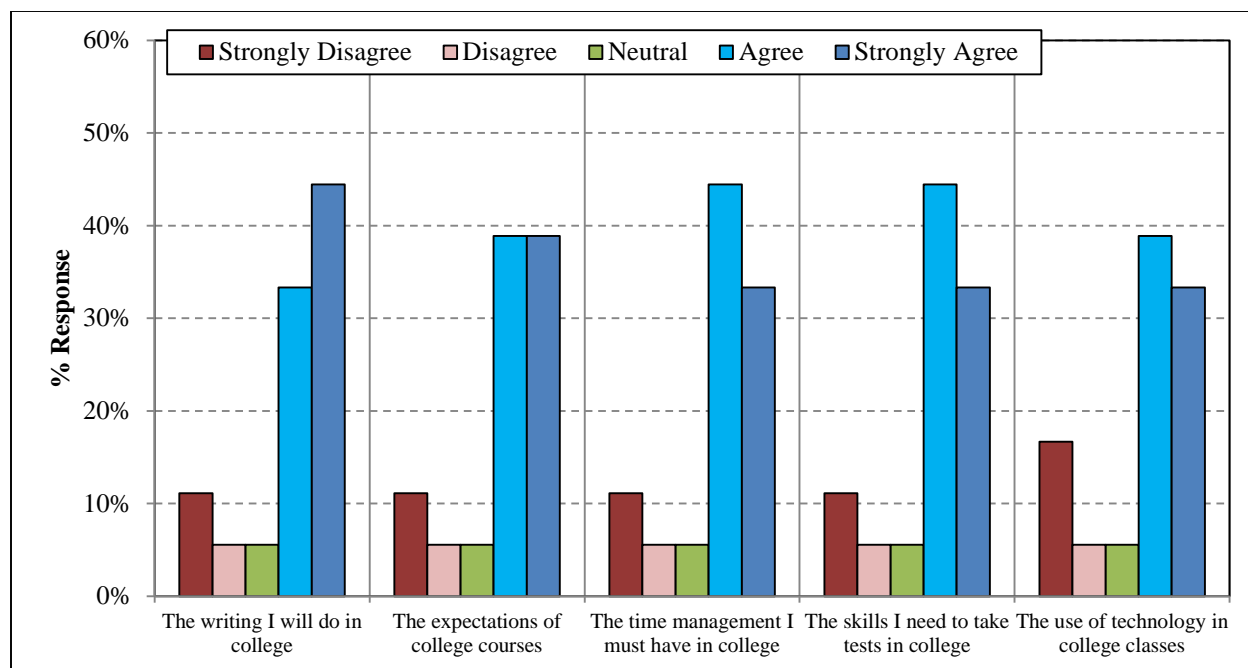> > *5. The use of technology in college classes*

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. Questions 10-1, 10-2, 10-3, and 10-4 exhibit positive response rates of 78% or higher. Question 10-5 exhibits the lowest positive response rate at 72%.

A tabulation of positive responses (Strongly Agree or Agree) and comparison based on learning strategy would normally be included here. However, of the 18 responses, 16 reported from compressed sections while only two reported from modularized sections making statistical significance tests yield limited accuracy (de Winter, 2013) and so no comparisons were conducted.

Table 1 shows positive response rates (Agree or Strongly Agree) for each of the survey prompts over time beginning fall 2014 through fall 2017. 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, 25 exhibit decreases while only 1 exhibits an increase from fall-to-fall.

	Fall 2014 n=65	Spring 2015 n=35	Fall 2015 n=36	Spring 2016 n=19	Fall 2016 n=27	Spring 2017 n=16	Fall 2017 n=18
Question 7 – Prompt: I believe I have improved in the following areas since taking this English class.							
English grammar	69%	94%	85%	100%	85%	100%	**78%**
Punctuation	75%	91%	85%	95%	80%	100%	**78%**
Sentence skills	77%	97%	85%	100%	80%	100%	**78%**
Essay writing	75%	97%	91%	100%	84%	100%	**83%**
Vocabulary	65%	88%	76%	100%	76%	100%	**56%**
Spelling	67%	81%	85%	95%	76%	100%	**50%**
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%	80%	84%	85%	94%	**72%**
The instructional assistants	80%	81%	77%	89%	80%	87%	**67%**
The access to computers	80%	91%	74%	89%	80%	100%	**72%**
The programs on the computers	74%	75%	77%	74%	76%	88%	**72%**
The hours the Writing Center was open and available to me	86%	94%	83%	95%	80%	100%	**61%**
The required Writing Center hours for my English class	85%	84%	81%	74%	76%	100%	**53%**
Question 9 – Prompt: I was satisfied with the following aspects of my English class this semester.							
The information on the course syllabus	78%	88%	83%	100%	80%	100%	**67%**
The content of the course textbook	67%	91%	75%	100%	84%	100%	**47%**
The McGraw-Hill Connect computer component	52%	75%	64%	84%	64%	88%	**39%**
The amount of homework assigned	75%	88%	83%	100%	76%	100%	**67%**
The number of tests	75%	91%	83%	95%	80%	100%	**78%**
The number of written assignments	75%	91%	85%	100%	76%	100%	**78%**
The length of time in class	74%	91%	86%	95%	84%	100%	**67%**
The frequency of class meetings	77%	91%	86%	89%	84%	100%	**83%**
The pace of the course	72%	91%	75%	100%	84%	100%	**78%**
Question 10 – Prompt: This English course prepared me for:							
The writing I will do in college	77%	94%	81%	89%	88%	100%	**78%**
The expectations of college courses	77%	88%	81%	100%	88%	100%	**78%**
The time management I must have in college	77%	91%	81%	100%	80%	100%	**78%**
The skills I need to take tests in college	75%	84%	83%	95%	88%	100%	**78%**
The use of technology in college classes	67%	88%	72%	95%	76%	94%	**72%**

Table 1. Positive (Agree or Strongly agree) response rates over time. Increases from fall-to-fall 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.

MAT 0057 Survey Report – Fall 2017
Author: Joseph F. van Gaalen, Ph.D., Director, Assessment & Effectiveness

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 developmental accountability plan to determine efficacy of developmental options and to inform course and program improvement. The following are the results for the fall 2017 term.

Of the 602 students enrolled in MAT 0057 during fall 2017, 100 responded to the survey for a response rate of 17%, down from 18% in spring 2017, and up from 15% in fall 2016. All sections of the course were modularized versions of the course.

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 1.

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
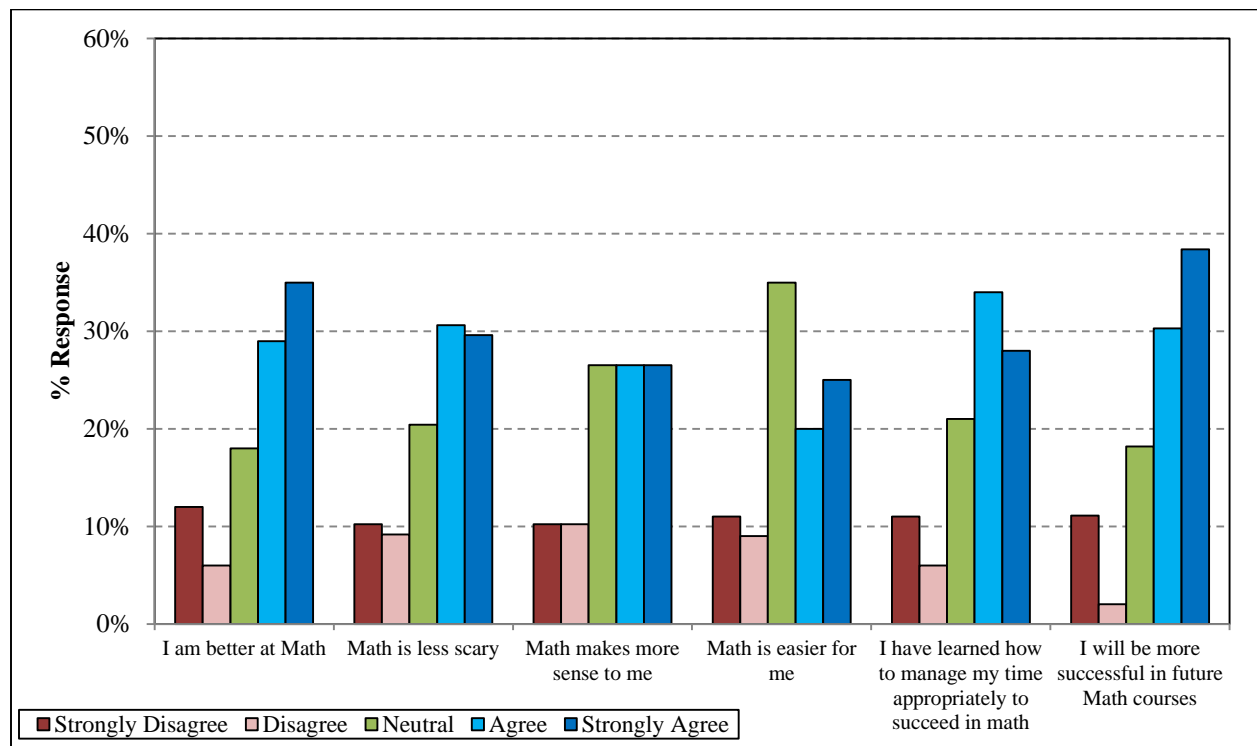

Figure 1. Responses to Question #8 " I believe I have improved in the following areas since taking this Math class."

All six areas exhibit positive responses (Agree or Strongly Agree) of 45% or better. Question 8-6 exhibits the highest positive response rate at 69%. Question 8-4 exhibits the lowest positive response rate at 45%. No question exhibits negative response rates (Disagree or Strongly Disagree) higher than 22%.

The below are the prompts for Question #10 followed by the results in Figure 2.

> *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*
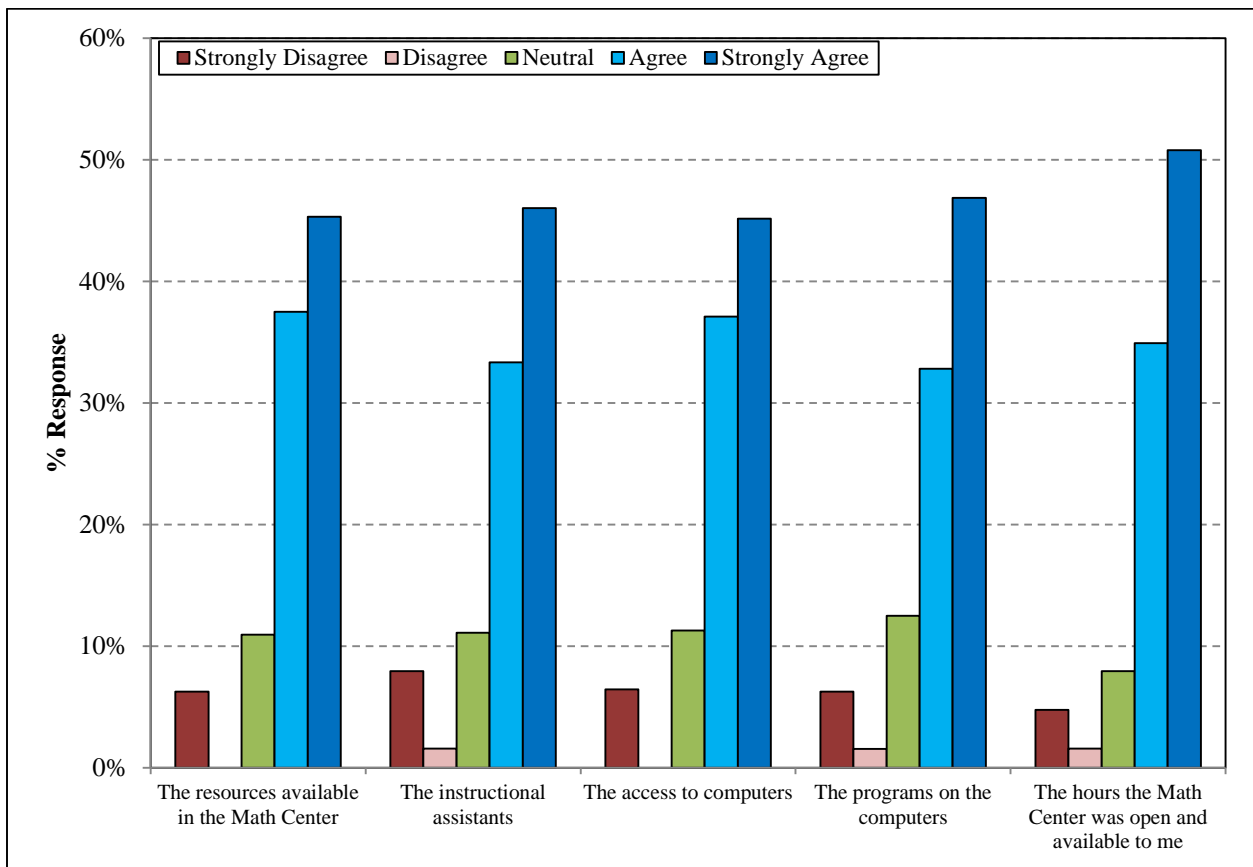

Figure 2. Responses to Question #10 "I benefited from the following aspects of the Math Academic Support Center this semester."

All five areas exhibit positive responses (Agree or Strongly Agree) of 70% or better. Question 10-5 exhibits the highest positive response rate, at 86%. Question 10-2 exhibits the lowest positive response rate at 69%. No question exhibits negative response rates (Disagree or Strongly Disagree) higher than 10%.

The below are the prompts for Question #11 followed by the results in Figure 3.

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
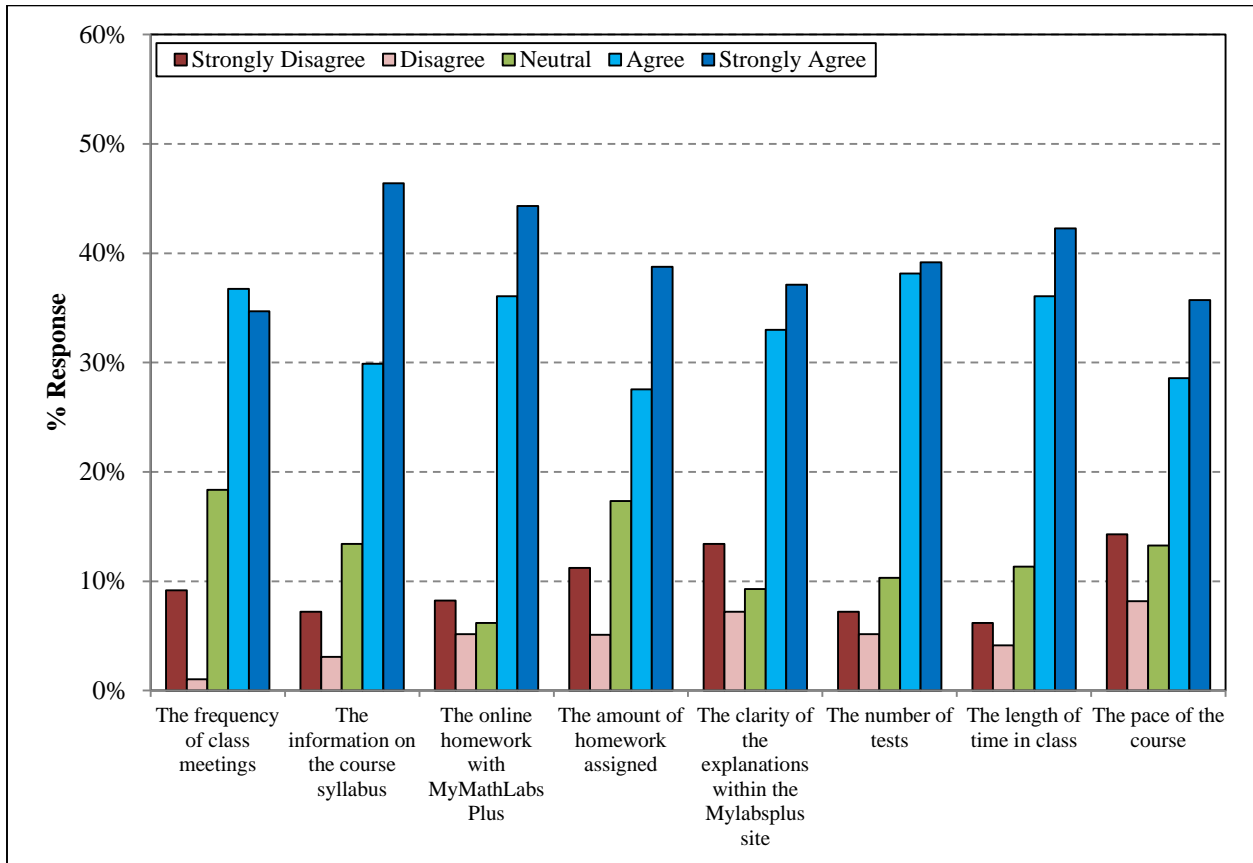   *6. The number of tests*
    7. The length of time in class
    8. The pace of the course

Figure 3. 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 60% or better. Question 11-3 exhibits the highest positive response rate at 80%. Question 11-8 exhibits the lowest positive response rate at 64%. No question exhibits negative response rates (Disagree or Strongly Disagree) higher than 22%.

The below are the prompts for Question #12 followed by the results in Figure 4.

Q12: This Math course prepared me for:
1. The next Math classes I will take
2. The time management I must have in college
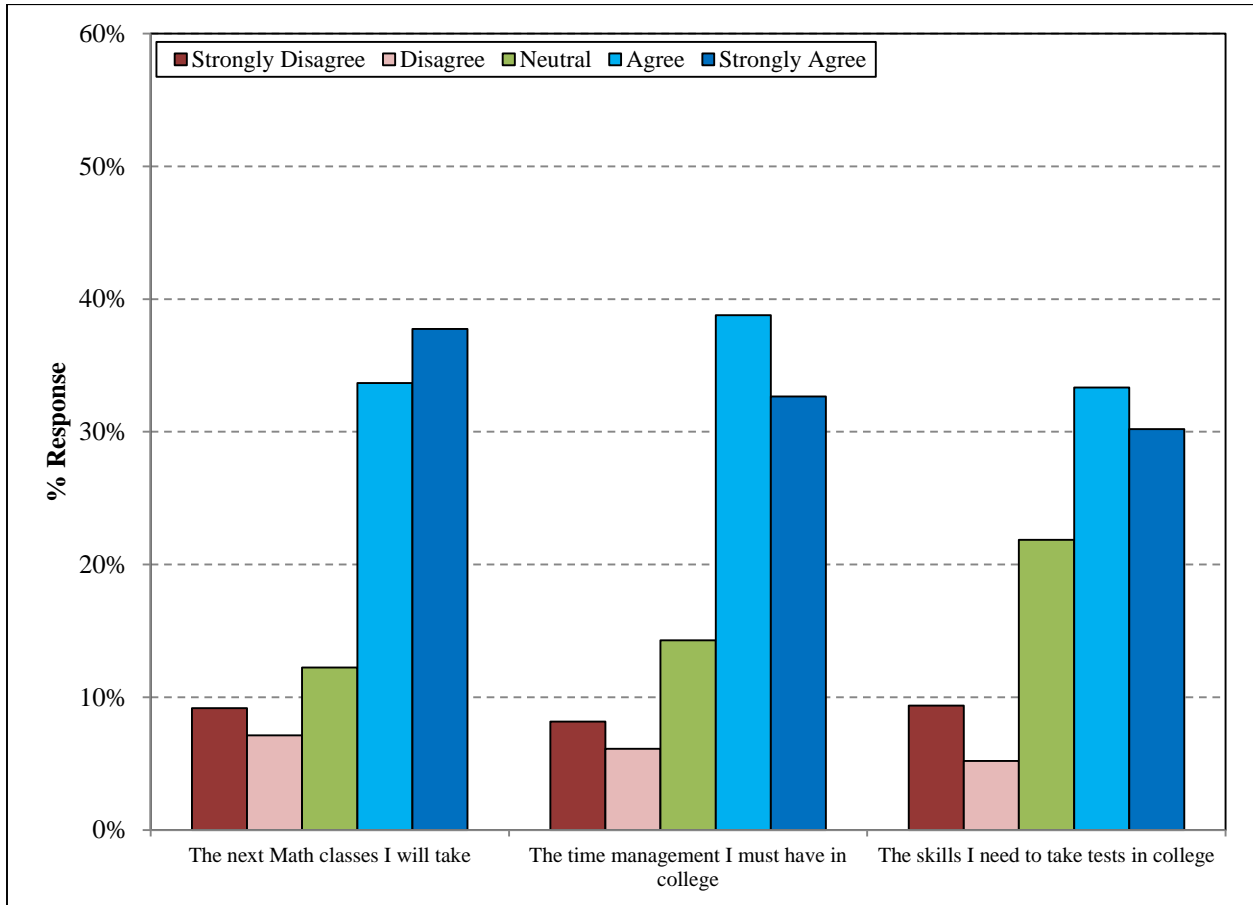*3. The skills I need to take tests in college*

Figure 4. Responses to Question #12 "This Math course prepared me for:"

All three areas exhibit positive responses (Agree or Strongly Agree) of 60% or better. Questions 12-1 and 12-2 exhibit the highest positive response rate at 71%. Question 12-3 exhibits the lowest positive response rate at 64%. No question exhibits negative response rates (Disagree or Strongly Disagree) higher than 16%.

Table 1 shows positive response rates (Agree or Strongly Agree) for each of the survey prompts over time beginning fall 2014 through fall 2017. 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, 20 of 22 exhibit decreases compared to the previous like term. Questions 8-1, 8-2, 8-3, 8-4, 11-1, 11-2, 11-4, and 12-3 exhibit drops of 10% or greater.

	F '14 n=265	Sp '15 n=137	Su '15 n=73	F '15 n=120	Sp '16 n=91	Su '16 n=50	F '16 n=93	Sp '17 n=67	Su '17 n=29	F '17 n=100
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%	74%	76%	90%	**64%**
Math is less scary	54%	59%	69%	63%	63%	60%	70%	65%	69%	**60%**
Math makes more sense to me	63%	65%	78%	65%	69%	67%	73%	62%	76%	**53%**
Math is easier for me	52%	53%	69%	52%	55%	56%	58%	59%	79%	**45%**
I have learned how to manage my time appropriately to succeed in math	63%	65%	74%	69%	66%	66%	71%	61%	69%	**62%**
I will be more successful in future Math courses	70%	71%	84%	77%	73%	72%	78%	70%	79%	**69%**
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%	88%	81%	79%	**83%**
The instructional assistants	57%	73%	83%	75%	77%	78%	79%	81%	71%	**79%**
The access to computers	72%	86%	77%	81%	83%	85%	85%	89%	79%	**82%**
The programs on the computers	68%	76%	77%	71%	69%	81%	81%	86%	64%	**80%**
The hours the Math Center was open and available to me	68%	84%	90%	79%	85%	74%	90%	89%	79%	**86%**
Question 11 – 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%	83%	77%	82%	**71%**
The information on the course syllabus	78%	84%	89%	80%	76%	76%	86%	79%	82%	**76%**
The online homework with MyMathLabs Plus	77%	84%	81%	74%	61%	56%	85%	81%	86%	**80%**
The amount of homework assigned	69%	69%	67%	70%	69%	62%	80%	69%	75%	**66%**
The clarity of the explanations within the MyLabsPlus site	51%	73%	70%	61%	70%	76%	70%	70%	75%	**70%**
The number of tests	77%	78%	85%	73%	72%	68%	84%	79%	79%	**77%**
The length of time in class	76%	84%	79%	79%	81%	78%	87%	77%	78%	**78%**
The pace of the course	64%	67%	69%	67%	68%	61%	72%	69%	70%	**64%**
Question 12 – Prompt: This Math course prepared me for:										
The next Math classes I will take	71%	75%	85%	68%	83%	70%	80%	70%	79%	**71%**
The time management I must have in college	71%	71%	81%	69%	73%	68%	76%	76%	82%	**71%**
The skills I need to take tests in college	70%	68%	82%	68%	79%	66%	75%	70%	64%	**64%**

Table 1. Positive (Agree or Strongly agree) response rates over time. Increases from fall-to-fall, spring-to-spring, or 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 developmental accountability plan to determine efficacy of developmental options and to inform course and program improvement. The following are the results for the fall 2017 term.

Of the 58 students enrolled in MAT 0058 during fall 2017, 14 responded to the survey for a response rate of 24%, up from 14% in spring 2017, and 15% in fall 2016. Of the 14 respondents, all were enrolled in the computer assisted, or modularized 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 1.

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
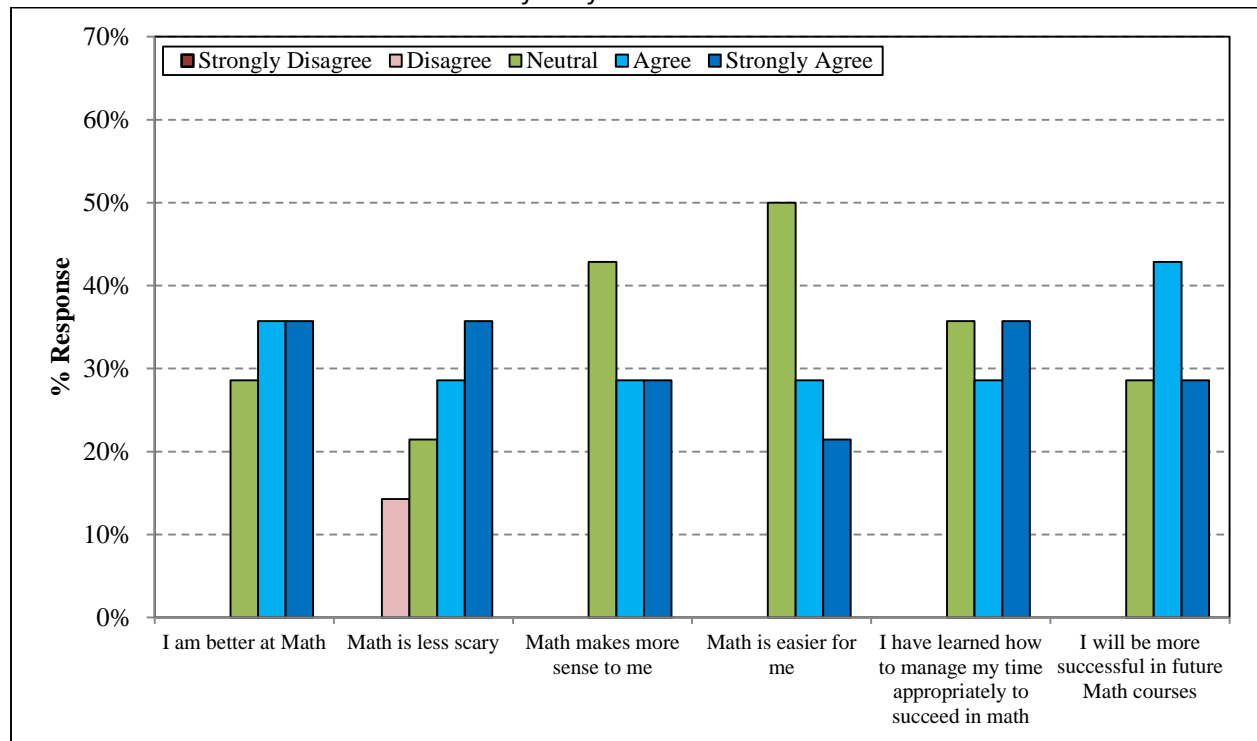*6. I will be more successful in future Math courses*

Figure 1. 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 50% or better. All but question 8-2 exhibits positive or neutral response rates of 100%. Only question 8-2 exhibits any negative responses (Disagree or Strongly Disagree) at 14%.

The below are the prompts for Question #10 followed by the results in Figure 2.

> *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*
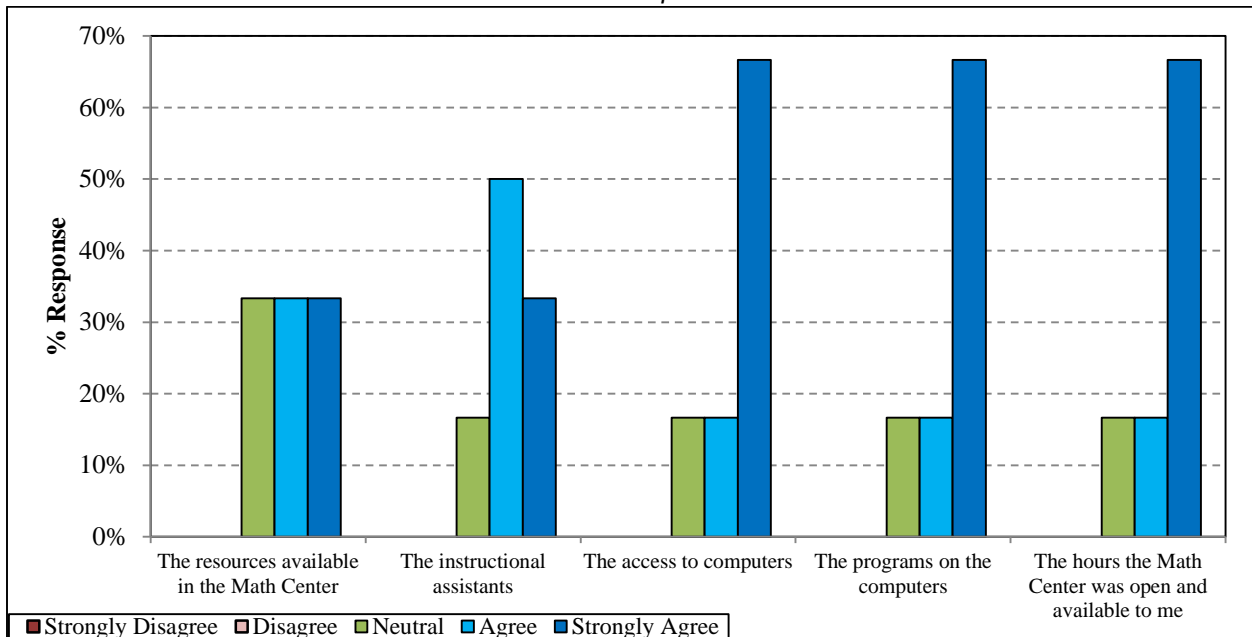
Figure 2. Responses to Question #10 "I benefited from the following aspects of the Math Academic Support Center this semester."

All five areas exhibit positive or neutral responses (Neutral, Agree, or Strongly Agree) of 100%.

The below are the prompts for Question #11 followed by the results in Figure 3.

> *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*
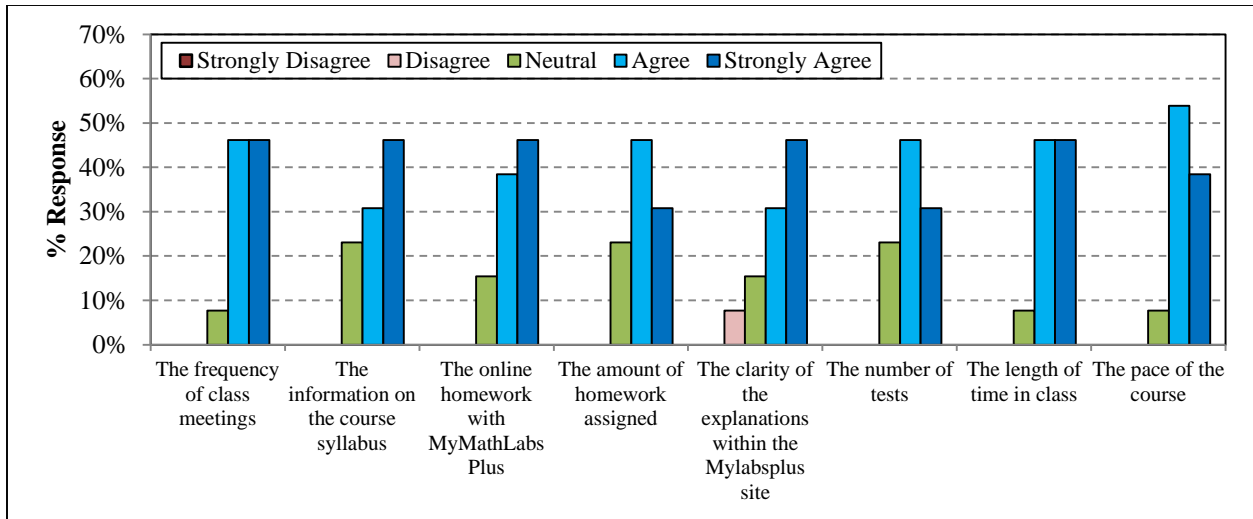> > *8. The pace of the course*

Figure 3. Responses to Question #11 "I was satisfied with the following aspects of my Math class this semester."

All eight areas exhibit positive or neutral responses (Neutral, Agree, or Strongly Agree) of 92% or better. Only question 11-5 exhibits any negative response at 8%.

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*
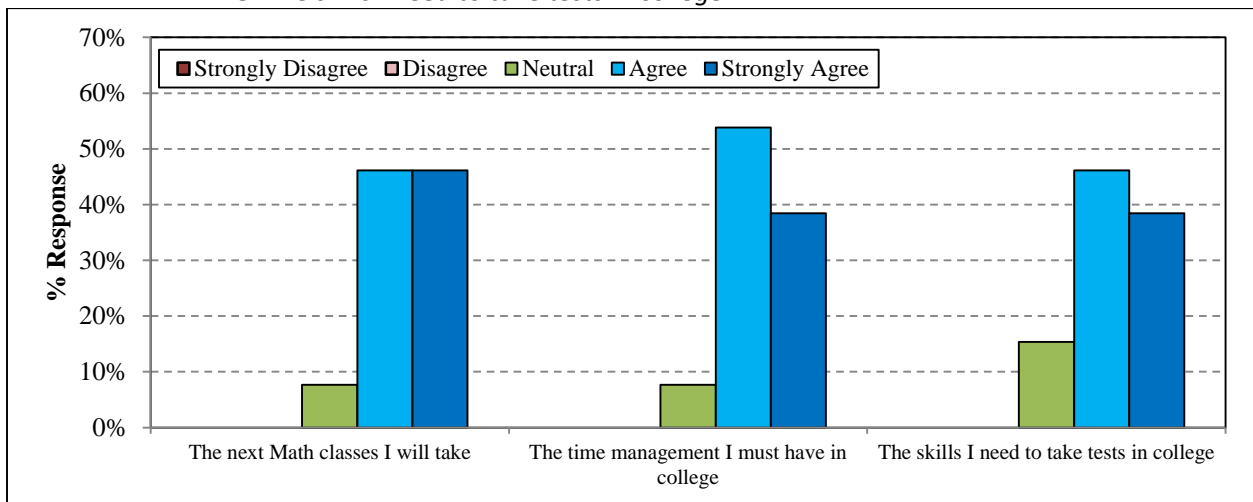
Figure 4. Responses to Question #12 "This Math course prepared me for:"

All three areas exhibit positive or neutral responses (Neutral, Agree, or Strongly Agree) of 100%. Typically, a longitudinal study would also be reported. However, as MAT 0058 will no longer be offered following the 2017-2018 academic year, this study will not be fulfilled.

Florida SouthWestern State College's assessment plan includes 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 fall 2017 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 24.5 to 29.1 $(t(200)=11.41, p=7.59 \times 10^{-22})$. 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.
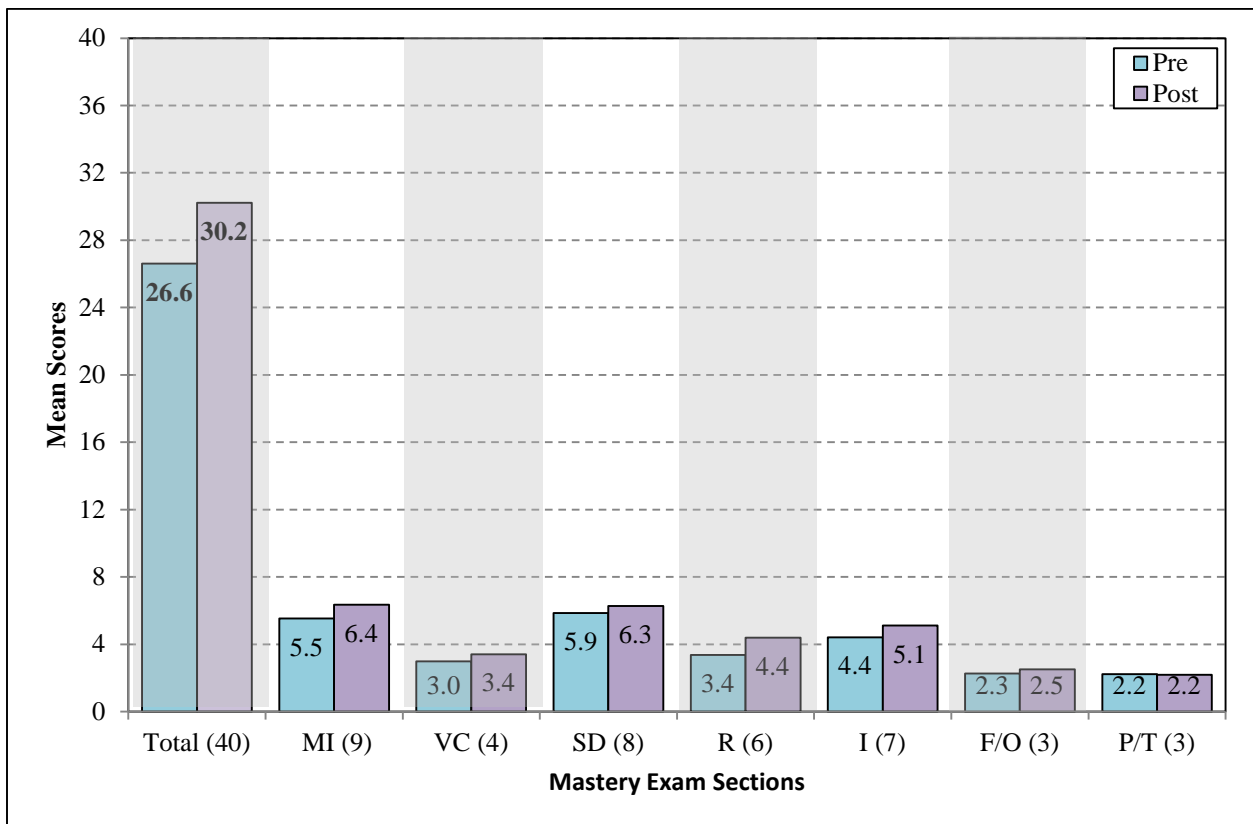

Figure 1. Comparison of pre- (teal) and post-test (purple) achievement for the Townsend Press College Reading Test (serving as the course mastery exam) conducted during the fall 2017 semester in REA 0019 courses. MI: Main Idea (9 points), VC: Vocabulary (4 points), SD: Supporting Details (8 points), 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.
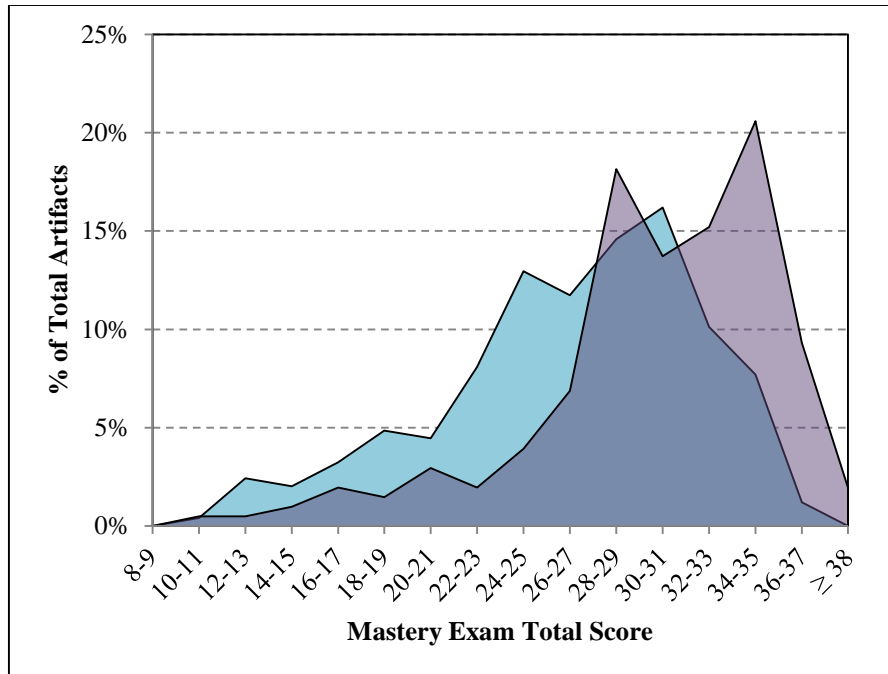
Figure 2. Distribution of pre- (aqua) and post-test (purple) scores for the Townsend Press College Reading Test (serving as the course mastery exam) conducted during the fall 2017 semester in REA 0019 courses.

A comparison of pre-test to post-test results as a function of learning strategy (modularized, compressed, and contextualized) is shown in Figure 3. The mean scores of all learning strategies increased from pre-to-post tests ranging from +1.2/40 points in contextualized sections to +4.3/40 points in compressed sections. These improvements are an increase of 3-11 percentage points. Each comparison study 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 for compressed and modularized learning strategies, but not contextualized.
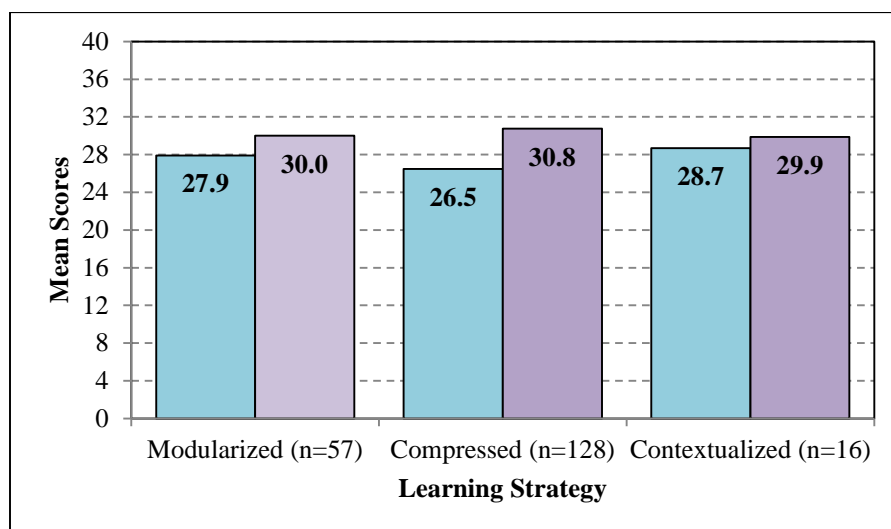

Figure 3. Comparison of pre- (aqua) and post-test (purple) achievement conducted during the fall 2017 semester in REA 0019 courses based on enrollment in a modularized, compressed, or contextualized course.

A comparison of exam success rates for pre-test and post-test according to learning strategy exhibits substantial improvement across all strategies. Based on results of a Fisher's Exact Test for independence, the compressed and modularized learning strategy have statistically significantly higher rates of passing scores in the post-test than in the pre-test. Results of the Fisher's Exact Test for each learning strategy as well as success rates are shown in Table 1.

	Modularized	Compressed	Contextualized	Overall
Pre-Test	59.5%	44.2%	58.8%	**49.8%**
Post-Test	80.7%	80.5%	75.0%	**78.9%**
P	*0.013*	*$3.25x10^{-10}$*	*0.464*	*$1.37x10^{-10}$*

Table 1. Pre-test/Post-test success rates (achievement at 70% or higher) by learning strategy for fall 2017.

A longitudinal study of success rates on this assessment is provided in Table 2. Note that overall success rates are up compared with fall 2016. Fall 2017 exhibits the highest success rate for a fall term since data has been reported in this longitudinal study.

	Modularized	Compressed	Contextualized	Overall
Spring 2015	57%	79%	*	**73%**
Summer 2015	67%	*	*	**68%**
Fall 2015	72%	66%	65%	**69%**
Spring 2016	59%	54%	57%	**57%**
Summer 2016	*	62%	*	**62%**
Fall 2016	83%	72%	78%	**76%**
Spring 2017	*	71%	83%	**72%**
Summer 2017	*	81%	*	**81%**
Fall 2017	81%	81%	75%	**79%**

Table 2. 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, 82% of students exhibit at least some improvement from pre-to-post test (Figure 4). Of those, 50% 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 49% in spring 2017, 30% in fall 2016, 43% in spring 2016 and 40% in fall 2015.
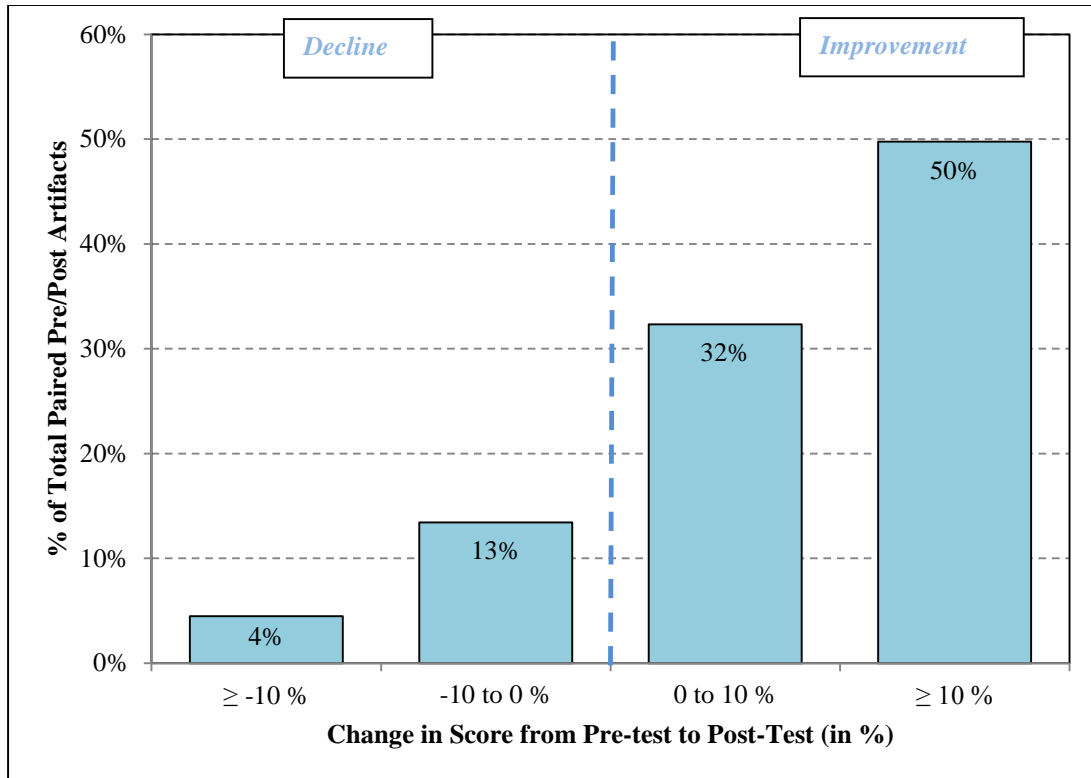
Figure 4. Comparison of the change in individual students' paired tests from pre-test to their post-test counterpart for fall 2017.

[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.

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 developmental accountability plan to determine efficacy of developmental options and to inform course and program improvement. The following are the results for the fall 2017 term.

Of the 264 students enrolled in REA 0019 during fall 2017, 34 responded to the survey for a response rate of 13%. 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*
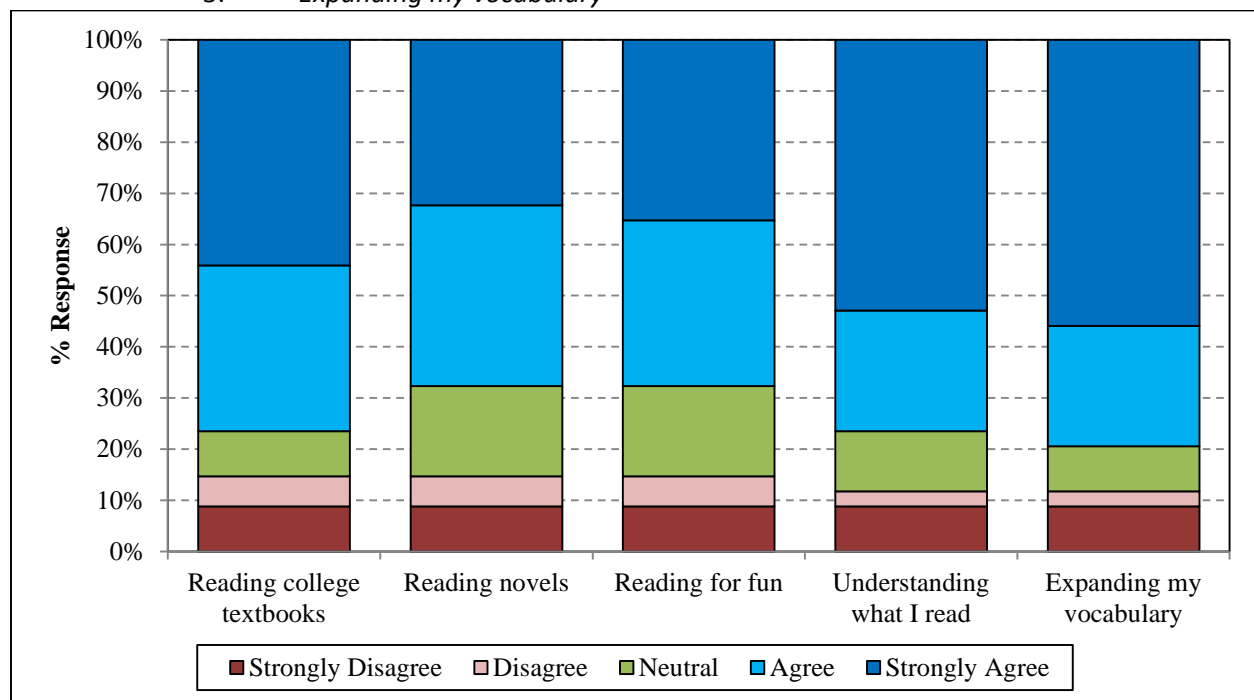5. *Expanding my vocabulary*

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 65% or better. Q7-4, and Q7-5 exhibit positive response rates greater than 75%. All questions exhibit negative responses of 15% or lower. A review of positive responses by learning strategy for Question 7, a focal element in the study, is shown in Figure 2. Note that only two responses were recorded originating from the contextualized sections so interpretation may be limited.
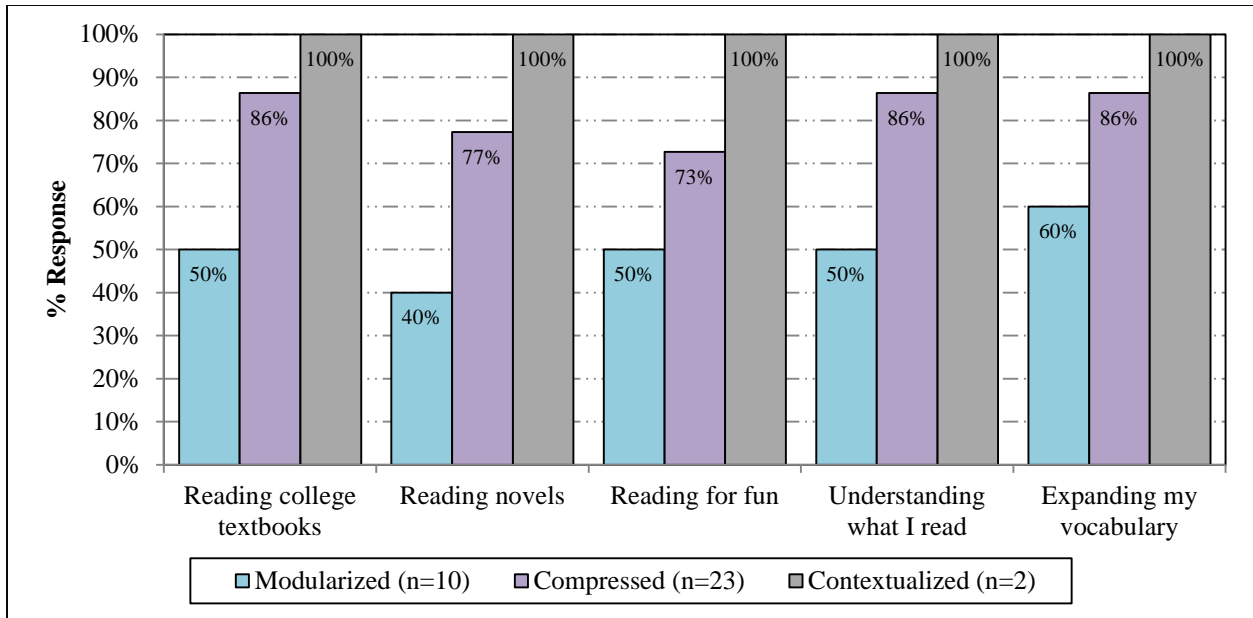
Figure 2. Responses to Question #7 by learning strategy.

The following are the prompts for Question #8 followed by results in Figure 3.

#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
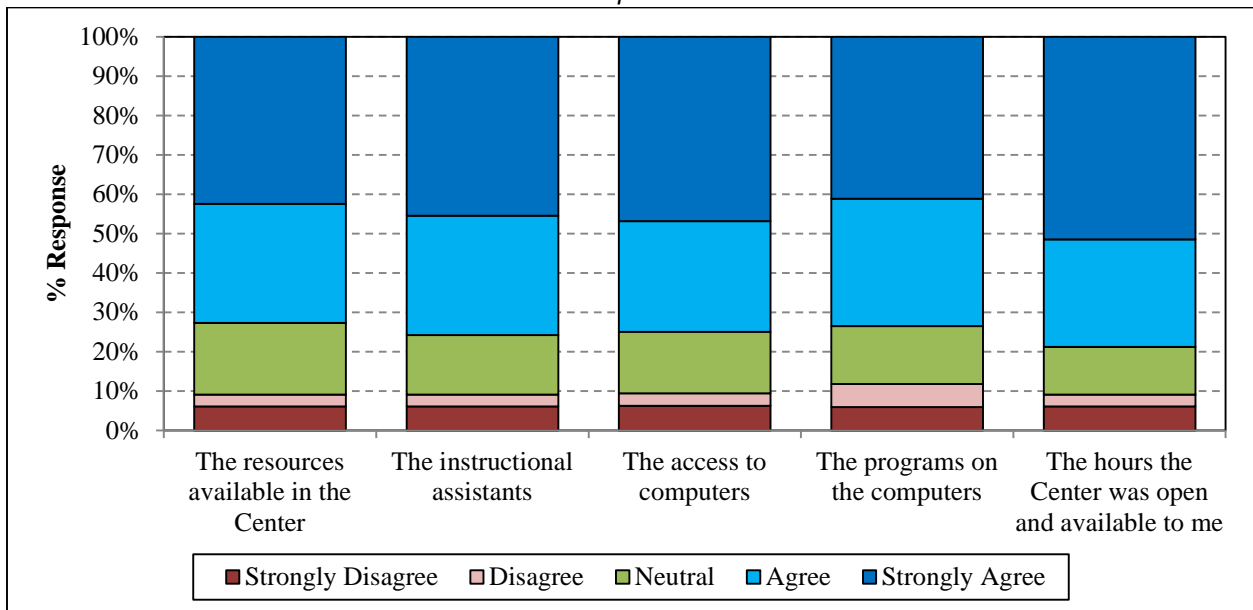   *5.   The hours the Center was open and available to me*

Figure 3. 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 70% or better. Q8-5 exhibits the highest positive response rate at 79%. All questions exhibit negative responses of 12% or less.

The following are the prompts for Question #9 followed by results in Figure 4.

#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*
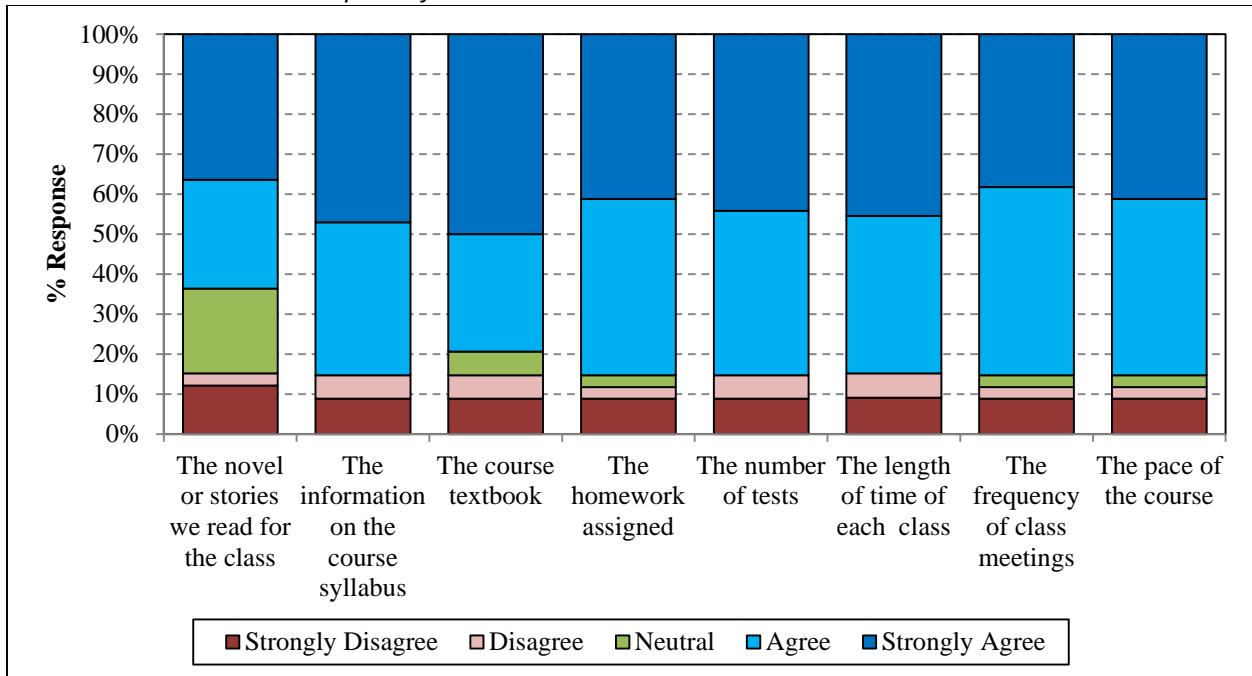8. *The pace of the course*

Figure 4. 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 60% or better. Five questions exhibit a positive response of 80% or higher. All questions exhibit negative responses of 15% or less.

The following are the prompts for Question #10 followed by results in Figure 5.

#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*
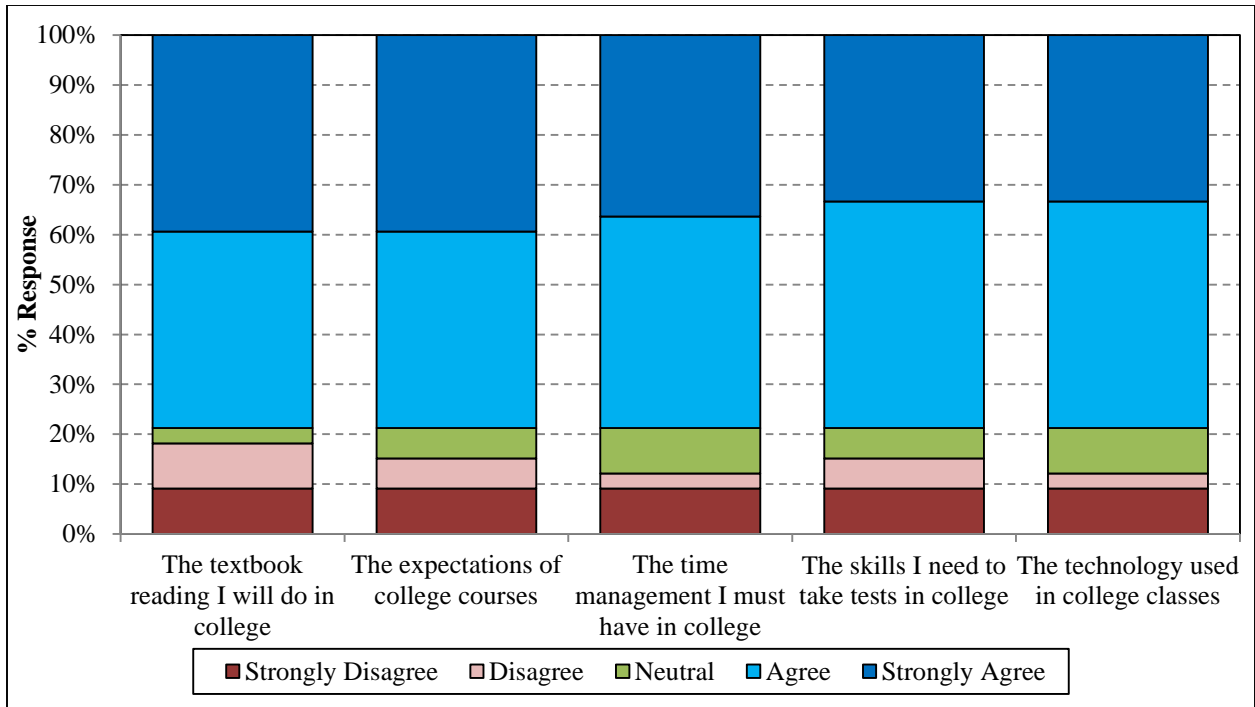5. *The technology used in college classes*

Figure 5. Responses to Question #10 "This Reading course prepared me for:"

All five areas exhibit positive responses (Agree or Strongly Agree) of 75% or better. All questions exhibit negative responses of 18% or less. A review of positive responses by learning strategy for Question 10, a focal element in the study, is shown in Figure 6. Note that only two responses were recorded originating from the contextualized sections so interpretation may be limited.
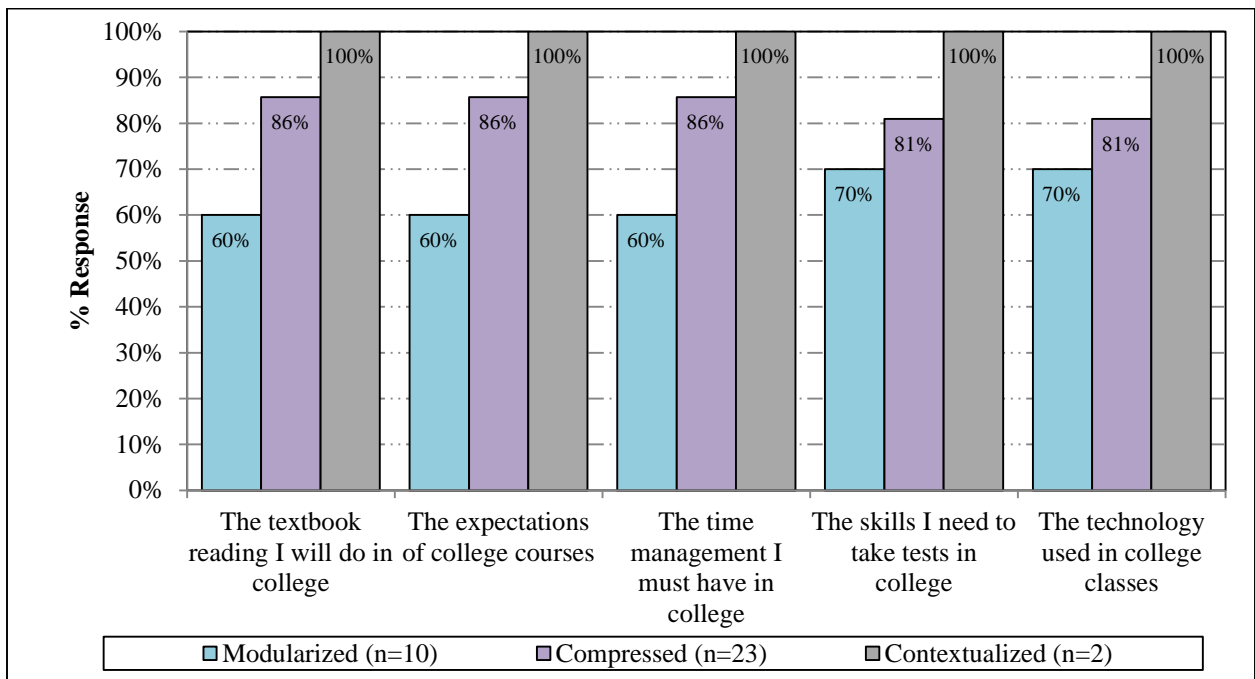

Figure 6. Responses to Question #10 by learning strategy.

Table 1 shows positive response rates (Agree or Strongly Agree) for each of the survey prompts over time beginning fall 2014 through fall 2017. 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). Fall 2017 exhibits increases from fall 2016 in 12 of 23 prompts. All prompts in Question 8 exhibit increases from fall 2016.

	Fall 2014 n=51	Spring 2015 n=21	Fall 2015 n=40	Spring 2016 n=15	Fall 2016 n=26	Spring 2017 n=24	Fall 2017 n=34
Question 7 – Prompt: I believe I have improved in the following areas since taking this Reading class.							
Reading college textbooks	58%	90%	85%	80%	77%	100%	**76%**
Reading novels	60%	75%	60%	73%	76%	83%	**68%**
Reading for fun	58%	90%	65%	67%	76%	83%	**68%**
Understanding what I read	67%	90%	85%	73%	88%	100%	**76%**
Expanding my vocabulary	69%	86%	90%	80%	84%	100%	**79%**
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%	67%	73%	72%	78%	**73%**
The instructional assistants	65%	85%	68%	67%	68%	78%	**76%**
The access to computers	69%	86%	74%	73%	72%	86%	**75%**
The programs on the computers	63%	76%	82%	80%	72%	77%	**74%**
The hours the Center was open and available to me	71%	85%	77%	87%	75%	74%	**79%**
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%	63%	60%	64%	81%	**64%**
The information on the course syllabus	71%	95%	80%	67%	76%	100%	**85%**
The course textbook	63%	90%	78%	67%	79%	100%	**79%**
The homework assigned	71%	86%	78%	73%	76%	100%	**85%**
The number of tests	63%	90%	70%	80%	80%	100%	**85%**
The length of time of each class	75%	86%	78%	73%	76%	96%	**85%**
The frequency of class meetings	71%	90%	73%	73%	76%	100%	**85%**
The pace of the course	69%	90%	78%	80%	80%	100%	**85%**
Question 10 – Prompt: This reading course prepared me for:							
The textbook reading I will do in college	71%	86%	68%	67%	80%	100%	**79%**
The expectations of college courses	73%	81%	73%	60%	80%	100%	**79%**
The time management I must have in college	73%	71%	70%	53%	76%	91%	**79%**
The skills I need to take tests in college	71%	81%	68%	60%	80%	100%	**79%**
The technology used in college classes	65%	81%	63%	67%	72%	100%	**79%**

Table 1. Positive (Agree or Strongly Agree) response rates over time. Red font denotes decrease from previous like term (fall-to-fall or spring-to-spring).