

Academic Support Centers Assessment Report – Spring 2015

Author: Joseph F. van Gaalen, Ph.D., Coordinator, Academic Assessment

1 INTRODUCTION

Florida SouthWestern's Academic Support Center (ASC) employs a series of assessments in order to support and strengthen the capabilities of each center (writing, math, and oral communications) in providing assistance in student achievement of the General Education competencies. Student learning centers have been shown to successfully improve student learning outcomes across the curriculum (Hendriksen et al., 2005) as well as increase college preparedness (Perin, 2004). Therefore, data-driven improvement has potential for a compounded effect across multiple disciplines college-wide as well as within the learning centers. Information gathered from assessment is intended to be shared with ASC leadership and staff as well as, in certain cases, among faculty and students. This study is in partial fulfillment of the assessment goals established in fall 2014 which is to include the entire 2014-15 academic year.

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

2 WRITING CENTER

The assessment goal for the ASC Writing Center is to gauge achievement in college composition courses as they relate to time spent receiving support from the ASC Writing Center. In the fall 2014 semester, ASC leadership established a goal that during the 2014-15 academic year, students with similar entering grade point averages (G.P.A.) who receive greater than two hours of support in the ASCs for writing and are enrolled in ENC 1101 Composition I or ENC 1102 Composition II will obtain satisfactory grades (A, B, or C) at a rate of 10% higher than students who do not receive support via writing consultations. This objective is defined within the Academic Support assessment program as Student Learning Object 5, or SLO5.

2.1 DESCRIPTIVE STATISTICS & LEARNING OBJECTIVES

The ASC leadership established measure of success for SLO5, student success rate in ENC 1101 or ENC 1102 increases by 10% given two or more hours of ASC writing consultation time, was met for three of five student cohorts. Success rates for those receiving greater than two hours of consultation exhibits is 50% higher for those with a GPA < 2.0, 12% higher for 2.0-2.49 GPA, 18% higher for 2.5-2.99 GPA, 9% higher for 3.0-3.49 GPA, and 3% higher for greater than or equal to 3.5 GPA (Table 1). A graphical representation of this data is shown in Figure 1.

n = 2209	n ≥ 2hr	n < 2hr
<i>Goal: Success Rate 10% higher for n ≥ 2hr</i>		
GPA < 2.0	100%	50%
GPA 2.0 – 2.49	62%	50%
GPA 2.5 – 2.99	78%	60%
GPA 3.0 – 3.49	88%	79%
GPA ≥ 3.5	90%	87%

Table 1. Success rates in ENC 1101 or ENC 1102 for those receiving greater than two hours consultation in the Writing Center and those receiving less than two hours consultation based on GPA upon entering college.

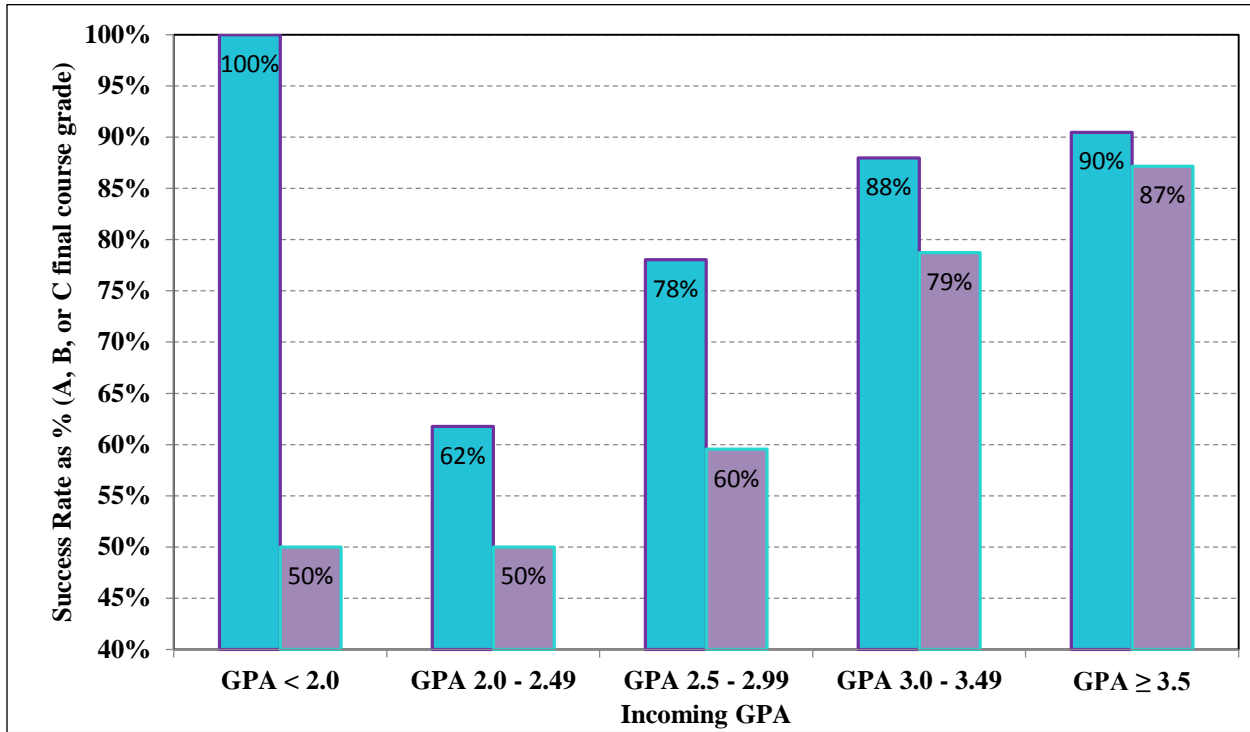


Figure 1. Success rates in ENC 1101 or ENC 1102 for those receiving greater than two hours consultation in the Writing Center (teal) and those receiving less than two hours consultation (purple) based on GPA upon entering college.

A Cochran-Mantel-Haenszel (CMH) test was conducted on the success rate data of those who accrued more than two hours of consultation time in the ASC Writing Center and those that did not to determine statistical significance of the results according to standard methods (McDonald, 2009). In other words, the CMH test compares collectively, inclusive of GPA score bins, whether the two cohorts (≥ 2 hr consultation or ≤ 2 hr consultation) are statistically significantly different and is not an analysis of individual GPA cohorts. Based on the results of the CMH test for repeated tests of independence, students with greater than two hours of consultation do exhibit a statistically significantly higher success rate than those who accrued fewer than two hours of consultation time ($\chi^2_{MH}=15.694$, 1 d.f., $P=7.45 \times 10^{-5}$). The null hypothesis that the relative proportions of success to failure between students accruing more or less than two hours of consultation time are independent of each other is rejected.

2.2 EXPLORATORY ANALYSIS

A comparison of success rate based on time spent in the ASC Writing Center was conducted in order to explore and quantify the value of time spent in writing consultation. The results of the analysis are shown in Figure 2. For students spending two or more hours in the ASC Writing Center, the time

minimum used in the definition of SLO5, success rate for ENC 1101 or 1102 courses in spring 2015 students increases by approximately 9%. A similar comparison of number of visits to the ASC Writing Center also exhibits a steady increase (Figure 3). These results are either on par with or exceed that of comparative research (Cooper, 2010; Hendriksen et al., 2005).

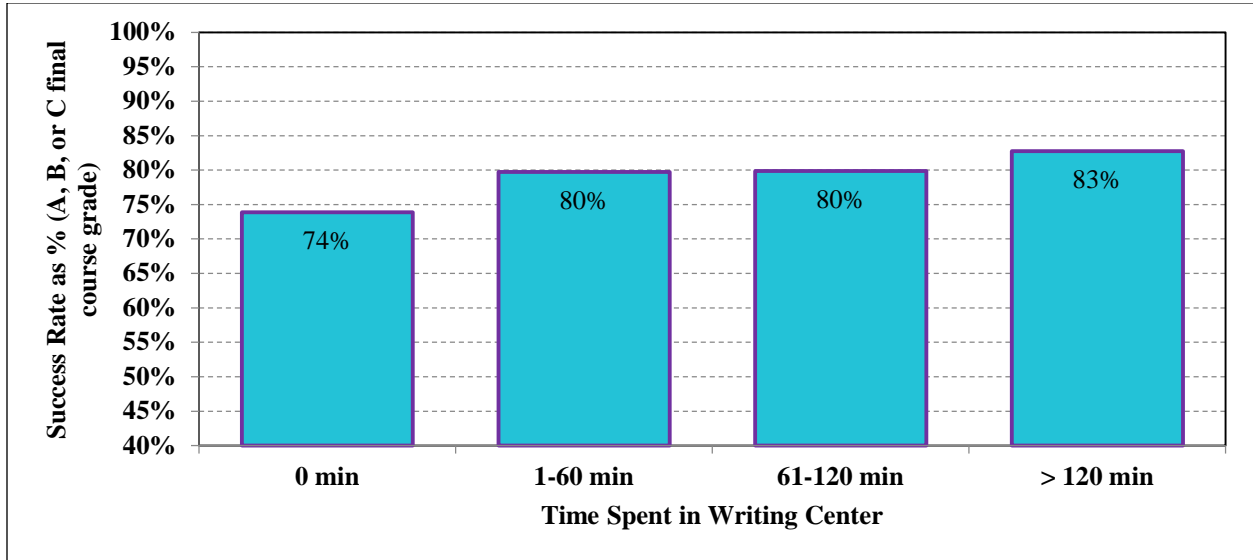


Figure 2. Success rates in ENC 1101 or ENC 1102 based on time spent in the ASC Writing Center.

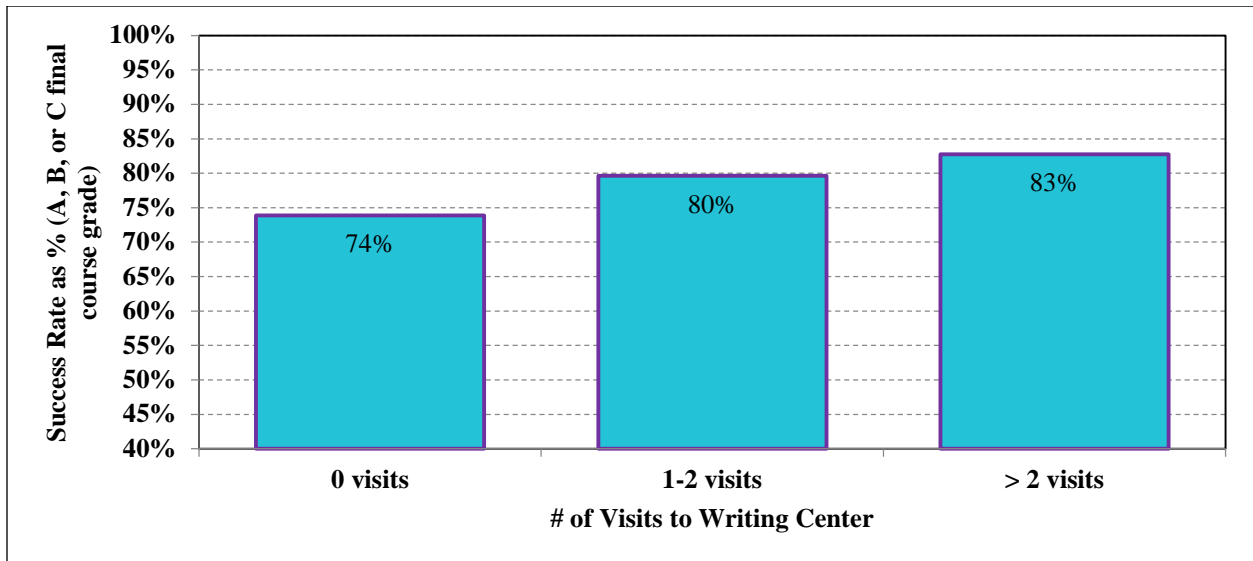


Figure 3. Success rates in ENC 1101 based on number of visits to the ASC Writing Center.

2.3 LONGITUDINAL STUDY

In a longitudinal study comparing fall 2014 with spring 2015 data the results exhibit an overall lower rate of success for ENC 1101 or 1102 (Figure 4). However, success rate improves progressively with either increased time spent in the ACS Writing Center or increased number of visits to the ACS Writing Center in both semesters. Fall 2014 data exhibit a 10% improvement from 0 minutes to > 120 minutes spent in the ACS Writing Center while spring 2015 data exhibit a 9% improvement. Similarly, fall 2014 data

exhibit a 9% improvement from 0 visits to > 2 visits while spring 2015 data also exhibit a 9% improvement over the same categories (Figure 5).

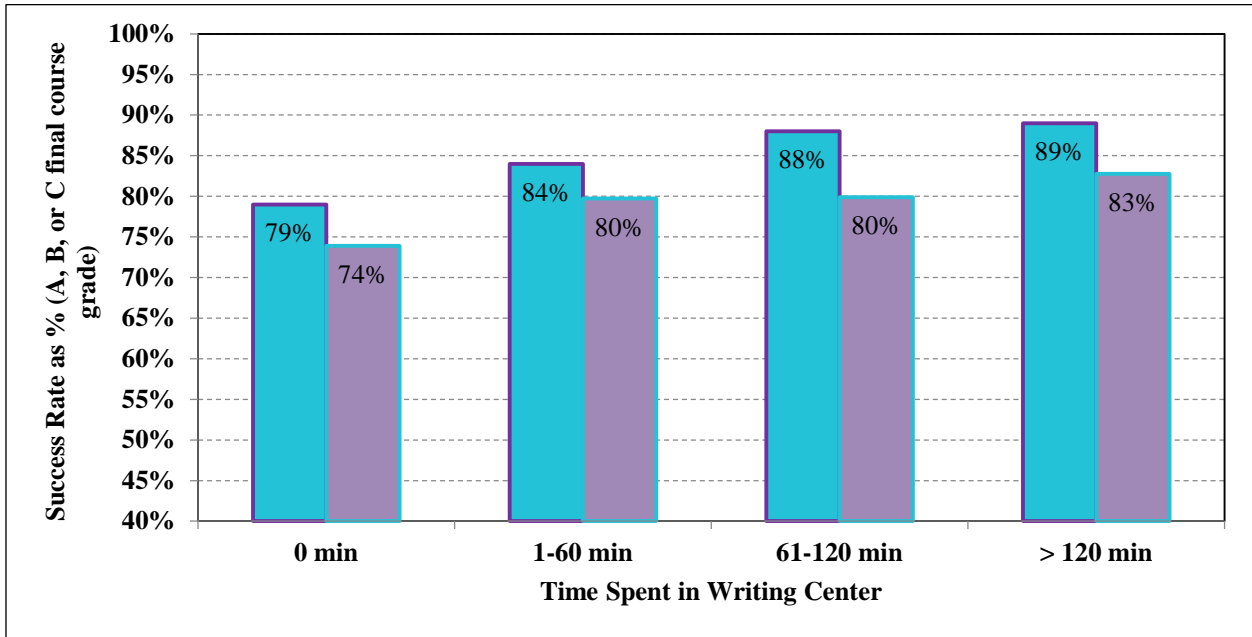


Figure 4. Comparison of success rates for ENC 1101 or 1102 for fall 2014 (teal) to spring 2015 (purple) by time spent in the ASC Writing center.

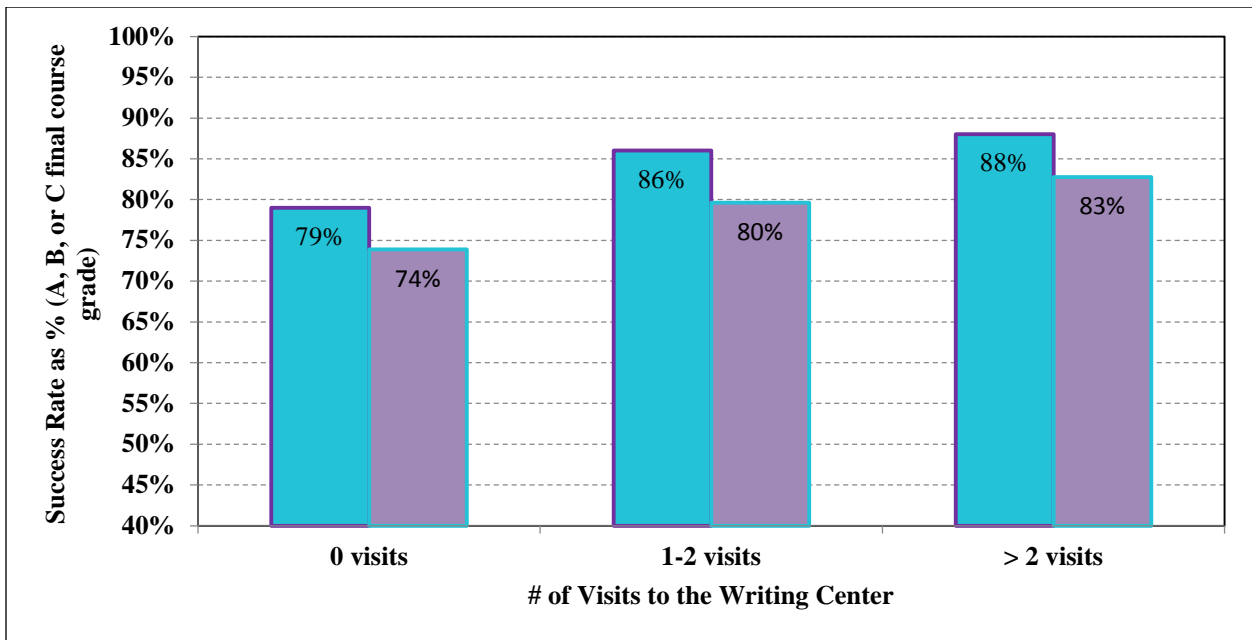


Figure 5. Comparison of success rates for ENC 1101 or 1102 for fall 2014 (teal) to spring 2015 (purple) by number of visits to the ASC Writing center.

3 MATH CENTER

The assessment goal for the ASC Math Center is to gauge achievement in college lower level math courses as they relate to time spent receiving support from the ASC Math Center. In the fall 2014 semester, ASC leadership established a goal that during the 2014-15 academic year, students with similar entering grade point averages (G.P.A.) who receive greater than two hours of support in the ASCs for math and are enrolled in either MAT 0057 Mathematics for College Success, MAT 1033 Intermediate Algebra, MAT 1100 Mathematical Literacy for College Students, or MAC 1105 College Algebra will obtain satisfactory grades (A, B, or C) at a rate of 10% higher than students who do not receive support via math consultations. This objective is defined within the Academic Support assessment program as Student Learning Object 6, or SLO6.

3.1 DESCRIPTIVE STATISTICS & LEARNING OBJECTIVES

The ASC leadership established measure of success for SLO6, student success rate in MAT 0057, MAT 1033, MAT 1100, or MAC 1105 increases by 10% given two or more hours of ASC math consultation time, was met in all cases except the lowest achieving students based on incoming GPA. Success rates for those receiving greater than two hours of consultation is 7% lower for those with a GPA < 2.0 (although only 3 students were both < 2.0 GPA and ≥ 2 hours consultation time), 3% higher for 2.0-2.49 GPA, 18% higher for 2.5-2.99 GPA, 19% higher for 3.0-3.49 GPA, and 10% higher for greater than or equal to 3.5 GPA (Table 2). A graphical representation of this data is shown in Figure 6.

n = 2072	n \geq 2hr	n < 2hr
Success Rate 10% higher for n \geq 2hr		
GPA < 2.0	33%	40%
GPA 2.0 – 2.49	36%	33%
GPA 2.5 – 2.99	62%	44%
GPA 3.0 – 3.49	78%	59%
GPA \geq 3.5	90%	80%

Table 2. Success rates in MAT 0057, MAT 1033, MAT 1100, or MAC 1105 for those receiving greater than two hours consultation in the Math Center and those receiving less than two hours consultation based on GPA upon entering college.

A Cochran-Mantel-Haenszel (CMH) test was conducted on the success rate data of those who accrued more than two hours of consultation time in the ASC Math Center and those that did not to determine statistical significance of the results according to standard methods (McDonald, 2009). In other words, the CMH test compares collectively, inclusive of GPA score bins, whether the two cohorts (≥ 2 hr consultation or ≤ 2 hr consultation) are statistically significantly different and is not an analysis of individual GPA cohorts. Based on the results of the CMH test for repeated tests of independence, students with greater than two hours of consultation have a statistically significantly higher success rate than those who accrued fewer than two hours of consultation time ($\chi^2_{MH}=19.65$, 1 d.f., $P=9.30 \times 10^{-6}$). The null hypothesis that the relative proportions of success to failure between students accruing more or less than two hours of consultation time are independent of each other is rejected.

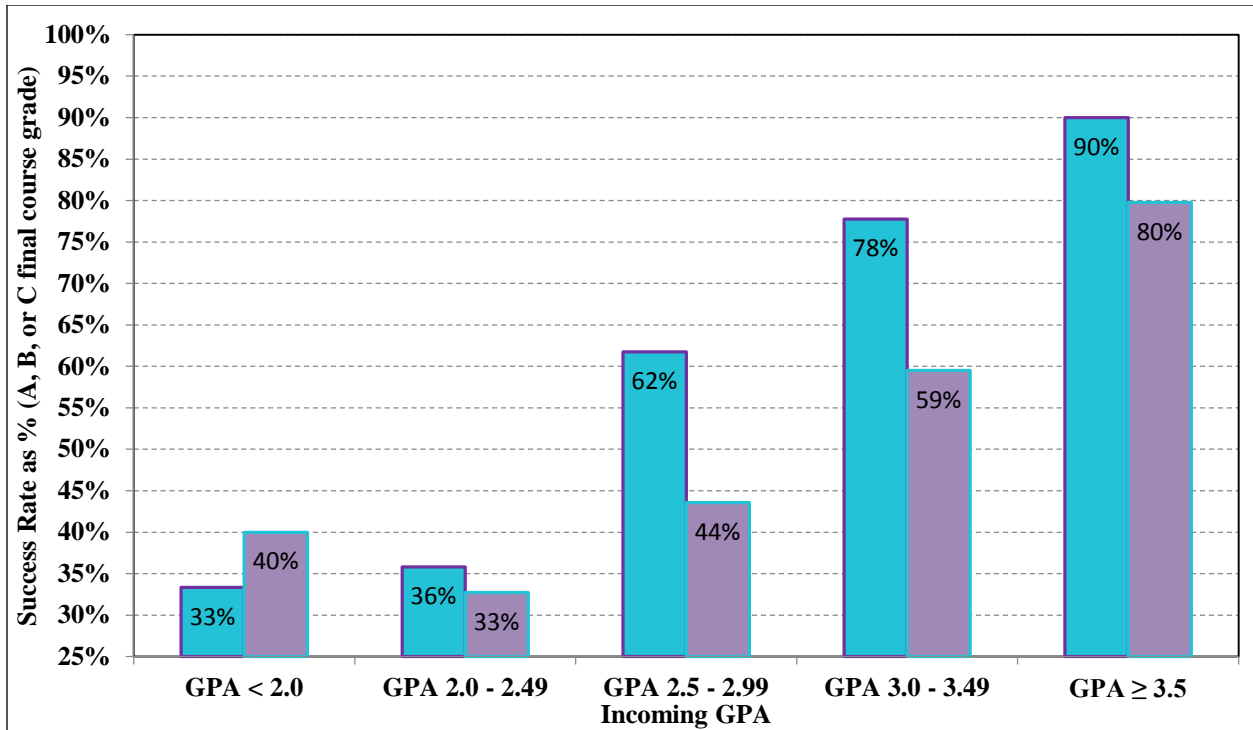


Figure 6. Success rates in MAT 0057, MAT 1033, MAT 1100, or MAC 1105 for those receiving greater than two hours consultation in the Math Center (teal) and those receiving less than two hours consultation (purple) based on GPA upon entering college.

3.2 EXPLORATORY ANALYSIS

A comparison of success rate based on time spent in the ASC Math Center was conducted in order to explore and quantify the value of time spent in math consultation. The results of the analysis are shown in Figure 7. For students spending two or more hours in the ASC Math Center, the time minimum used in the definition of SLO6, success rate is approximately 12% higher in MAT 0057, MAT 1033, MAT 1100, or MAC 1105.

An additional comparison of MAT 0057, MAT 1033, MAT 1100, or MAC 1105 students comparing number of visits to the ASC Math Center instead of time spent is shown in Figure 7. The success rate for those students with no visits to the Math Center is 50.2%. Success rate improves for those visiting the center once or twice (57.2%). Success rates continue to improve for those visiting the center two or more times (62.2%). These results are either on par with or exceed that of comparative research (Cooper, 2010; Hendriksen et al., 2005).

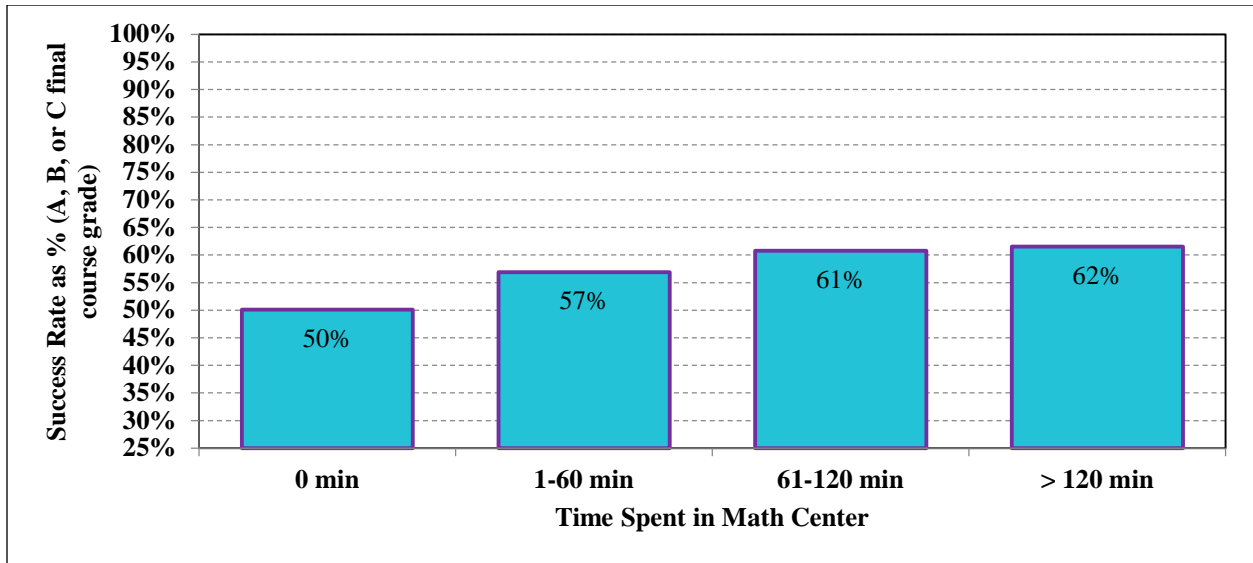


Figure 7. Success rates in MAT 0057, MAT 1033, MAT 1100, or MAC 1105 based on time spent in the ASC Math Center.

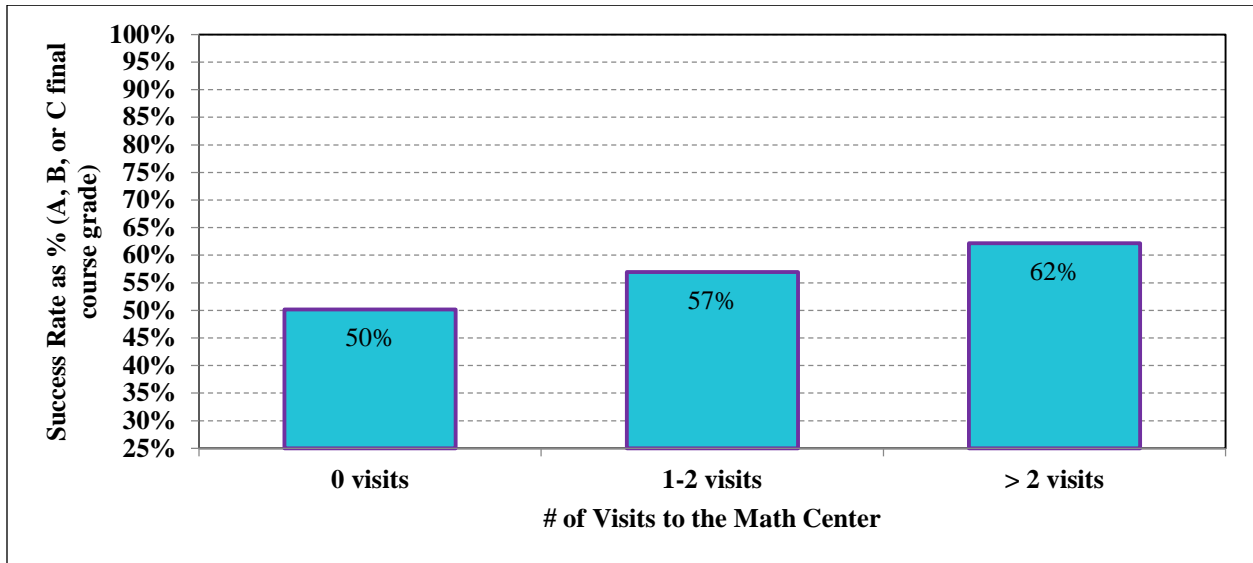


Figure 8. Success rates in MAT 0057, MAT 1033, MAT 1100, or MAC 1105 based on number of visits to the ASC Math Center.

3.3 LONGITUDINAL STUDY

In a longitudinal study comparing fall 2014 with spring 2015 data the results exhibit a progressive improvement in success rate with increased time spent in the math center, a trend not clear in fall 2014 data (Figure 9). Fall 2014 data exhibit a 7% improvement from 0 minutes to > 120 minutes spent in the ACS Math Center while spring 2015 data exhibit a 12% improvement. Similarly, fall 2014 data exhibit an 8% improvement from 0 visits to > 2 visits while spring 2015 data also exhibit a 12% improvement over the same categories (Figure 10).

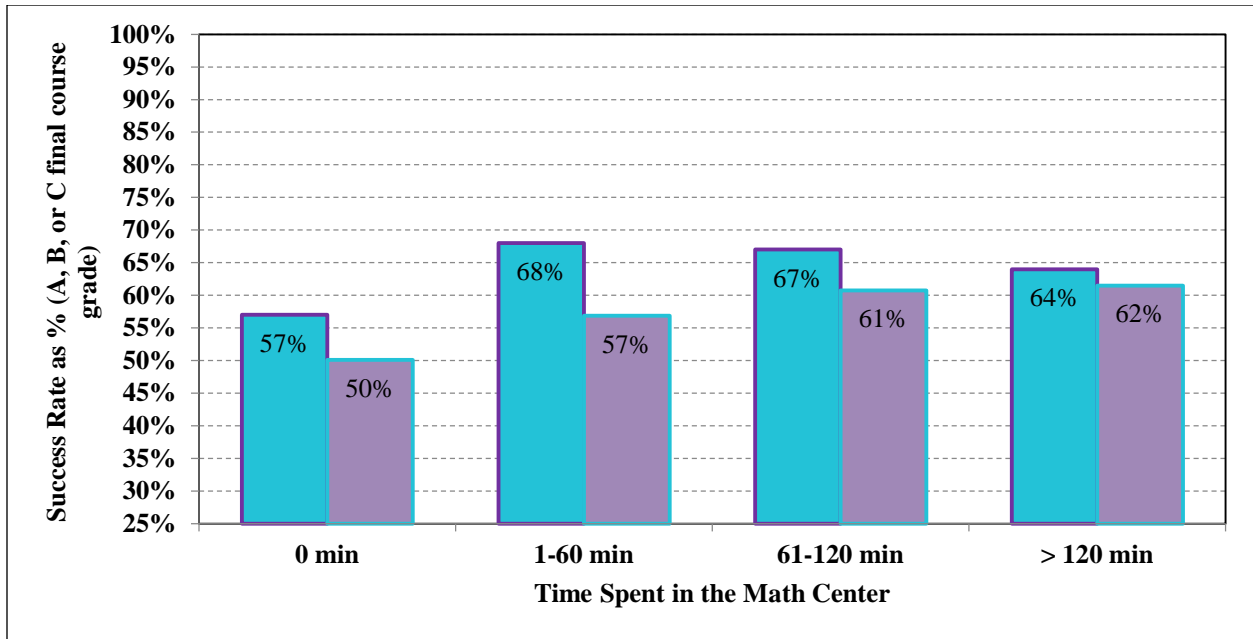


Figure 9. Comparison of success rates for MAT 0057, 1033, 1100, or MAC 1105 for fall 2014 (teal) to spring 2015 (purple) by time spent in the math center.

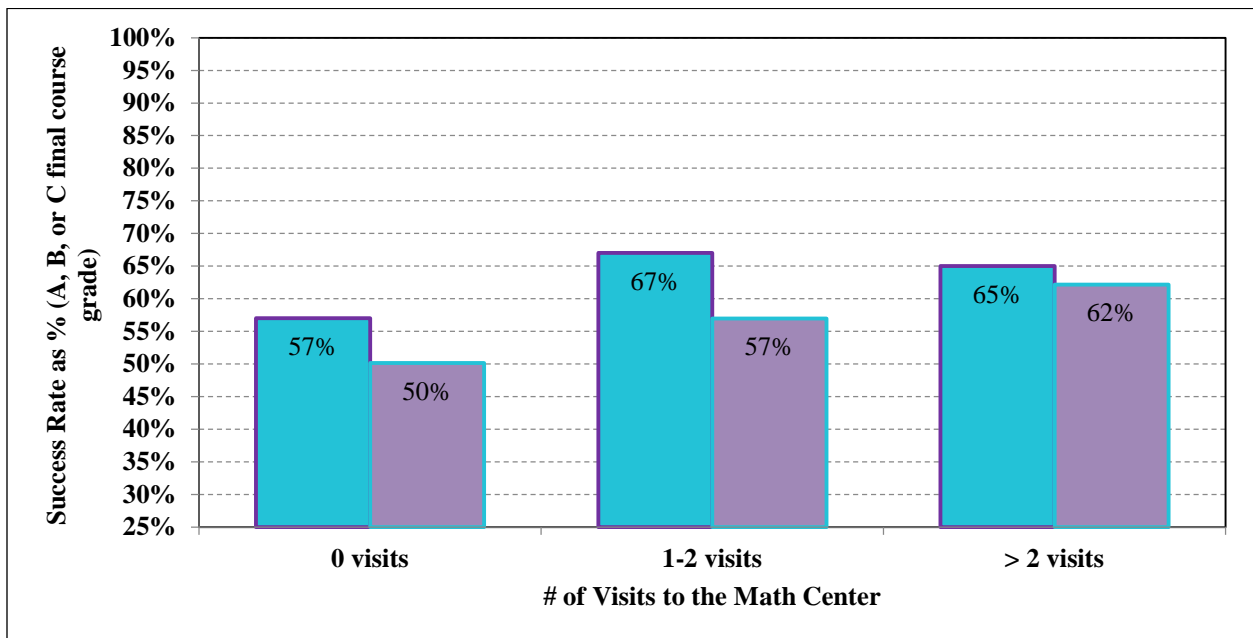


Figure 10. Comparison of success rates for MAT 0057, 1033, 1100, or MAC 1105 for fall 2014 (teal) to spring 2015 (purple) by number of visits to the math center.

4 ORAL COMMUNICATIONS CENTER

The assessment goal for the ASC Oral Communications Center (OCC) is to gauge achievement in college entry level speech courses as they relate to time spent receiving support from the ASC Oral Communications Center. In the fall 2014 semester, ASC leadership established a goal that during the

2014-15 academic year, students with similar entering grade point averages (G.P.A.) who receive greater than two hours of support in the ASCs for speech/communication and are enrolled in either SPC 1017 Fundamentals of Speech Communication or SPC 2608 Introduction to Public Speaking will obtain satisfactory grades (A, B, or C) at a rate of 10% higher than students who do not receive support via math consultations. This objective is defined within the Academic Support assessment program as Student Learning Object 7, or SLO7.

4.1 DESCRIPTIVE STATISTICS & LEARNING OBJECTIVES

The ASC leadership established measure of success for SLO7, student success rate in SPC 1017 or SPC 2608 increases by 10% given two or more hours of ASC oral communications consultation time, was met in some cases, although a small sample size limits the impact of the study. Success rates for those receiving greater than two hours of consultation is 4% higher for those with a 2.0-2.49 GPA, 21% higher for 2.5-2.99 GPA, 10% higher for 3.0-3.49 GPA, and 21% higher for greater than or equal to 3.5 GPA (Table 3). A graphical representation of this data is shown in Figure 11.

n = 204	n ≥ 2hr	n < 2hr
<i>Success Rate 10% higher for n ≥ 2hr</i>		
GPA < 2.0	No data	75%
GPA 2.0 – 2.49	83%	79%
GPA 2.5 – 2.99	100%	79%
GPA 3.0 – 3.49	90%	80%
GPA ≥ 3.5	100%	79%

Table 3. Success rates in SPC 1017 or SPC 2608 for those receiving greater than two hours consultation in the Oral Communications Center and those receiving less than two hours consultation based on GPA upon entering college.

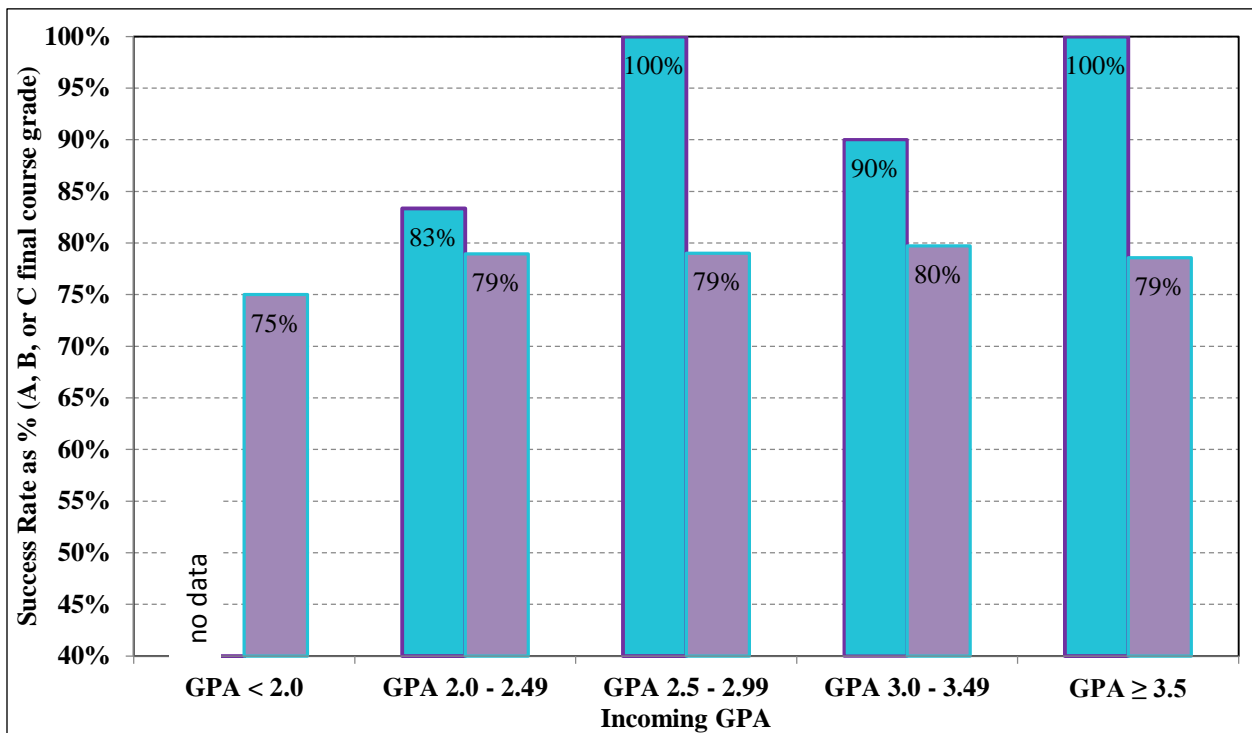


Figure 11. Success rates in SPC 1017 or 2608 for those receiving greater than two hours consultation in the ASC Oral Communications Center (teal) and those receiving less than two hours consultation (purple) based on GPA upon entering college.

A Cochran-Mantel-Haenszel (CMH) test was conducted on the success rate data of those who accrued more than two hours of consultation time in the ASC Oral Communications Center and those that did not to determine statistical significance of the results according to standard methods (McDonald, 2009). In other words, the CMH test compares collectively, inclusive of GPA score bins, whether the two cohorts (≥ 2 hr consultation or ≤ 2 hr consultation) are statistically significantly different and is not an analysis of individual GPA cohorts. Based on the results of the CMH test for repeated tests of independence, students with greater than two hours of consultation did not have a statistically significantly higher success rate than those who accrued fewer than two hours of consultation time ($\chi^2_{MH}=1.46$, 1 d.f., $P=0.227$). The null hypothesis that the relative proportions of success to failure between students accruing more or less than two hours of consultation time are independent of each other cannot be rejected.

4.2 EXPLORATORY ANALYSIS

A comparison of success rate based on time spent in the ASC Oral Communications Center was conducted in order to explore and quantify the value of time spent in oral communications consultation. The results of the analysis are shown in Figure 12. For students spending two or more hours in the ASC Oral Communications Center, the time minimum used in the definition of SLO7, success rate is approximately 16% higher in SPC 1017 or 2608.

An additional comparison of SPC 1017 or 2608 students comparing number of visits to the ASC Oral Communications Center instead of time spent is shown in Figure 13. The success rate for those students with no visits to the Oral Communications Center is 79.3%. Success rate improves for those visiting the center once or twice (85.6%). Success rates continue to improve for those visiting the center two or more times (96.5%). These results are either on par with or exceed that of comparative research (Cooper, 2010; Hendriksen et al., 2005).

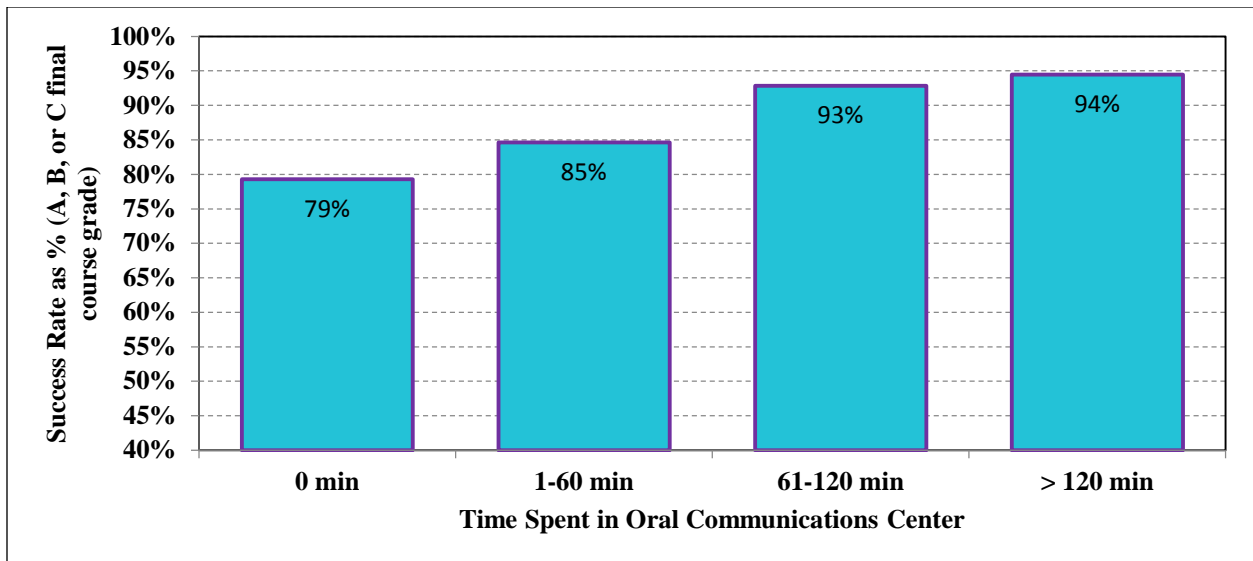


Figure 12. Success rates in SPC 1017 or 2608 based on time spent in the ASC Oral Communications Center.

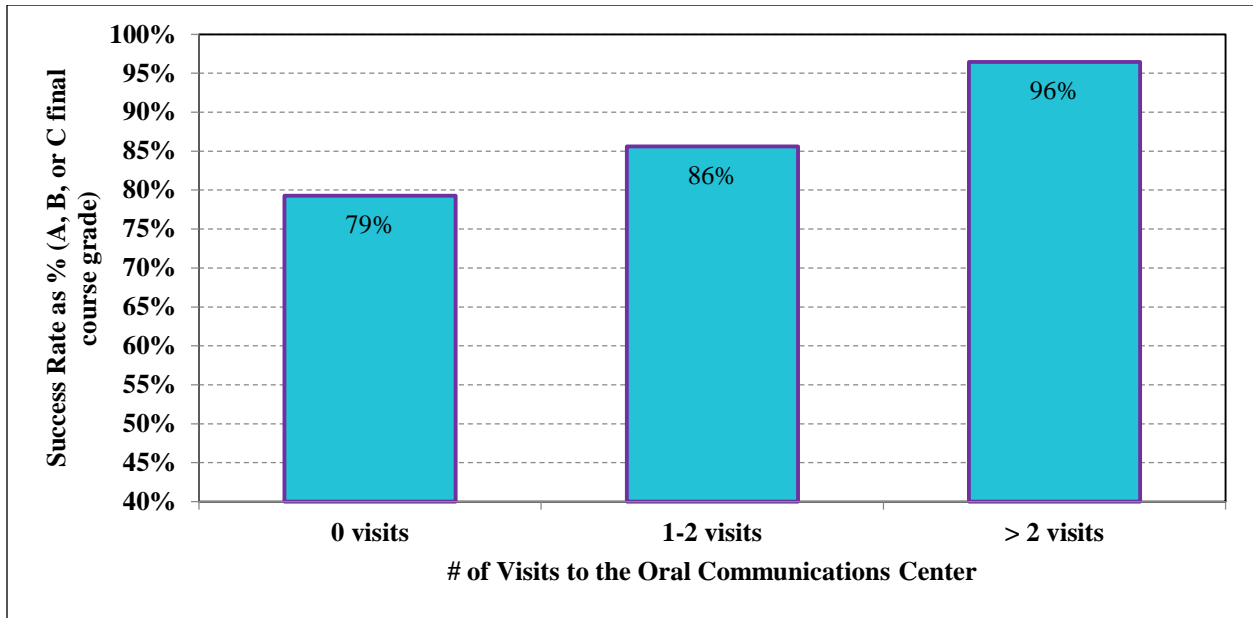


Figure 13. Success rates in SPC 1017 or 2608 based on number of visits to the ASC Oral Communications Center.

4.3 LONGITUDINAL STUDY

In a longitudinal study comparing fall 2014 with spring 2015 data the results exhibit a progressive improvement in success rate with increased time spent in the ASC Oral Communications Center for both fall 2014 and spring 2015 (Figure 14). Fall 2014 data exhibit a 16% improvement from 0 minutes to > 120 minutes spent in the OCC while spring 2015 data exhibit a 15% improvement. Similarly, fall 2014 data exhibit a 13% improvement from 0 visits to > 2 visits while spring 2015 data also exhibit a 17% improvement over the same categories (Figure 15).

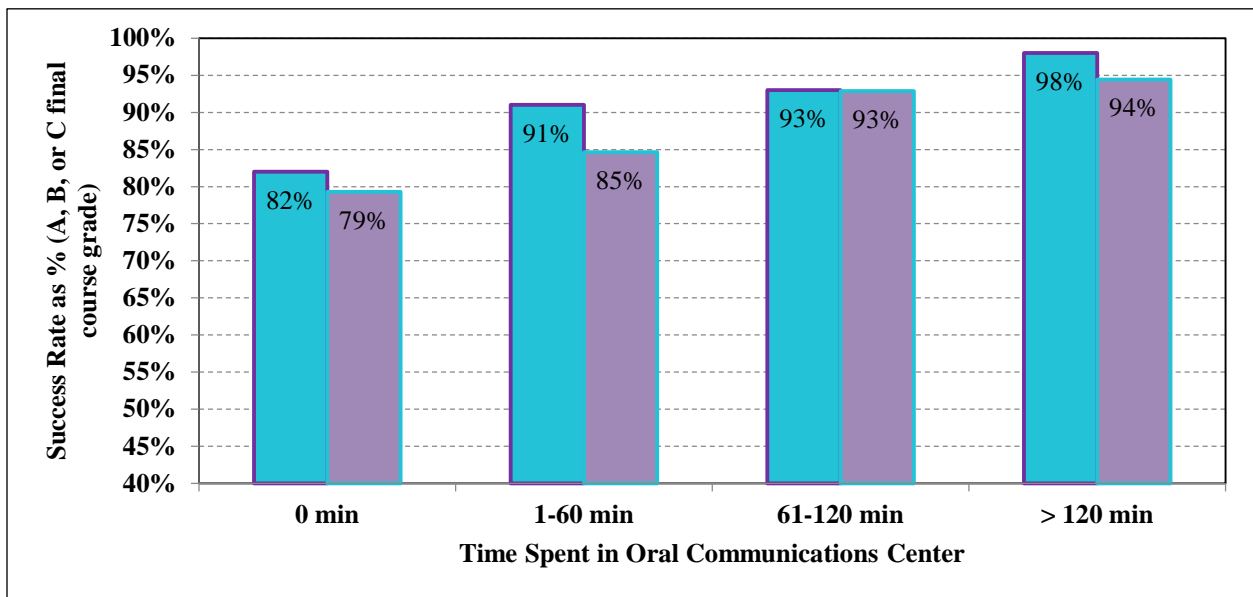


Figure 14. Comparison of success rates for SPC 1017 or 2608 for fall 2014 (teal) to spring 2015 (purple) by time spent in the ASC Oral Communications Center.

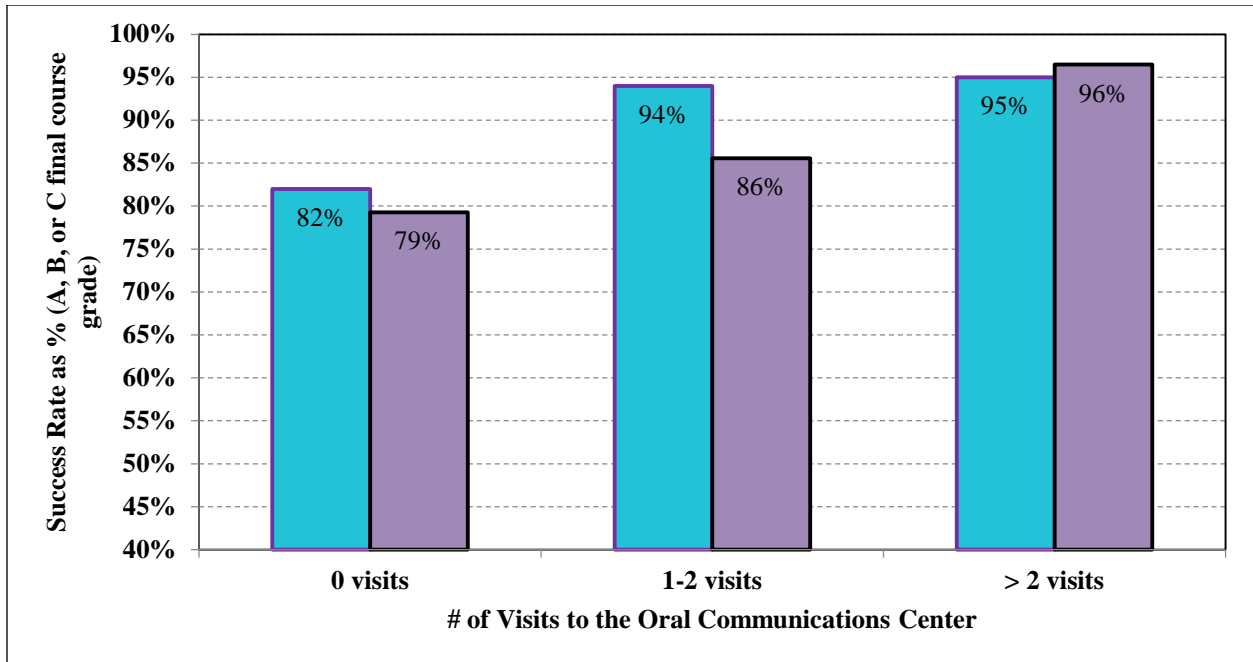


Figure 15. Comparison of success rates for SPC 1017 or 2608 for fall 2014 (teal) to spring 2015 (purple) by number of visits to the ASC Oral Communications Center.

5 CONCLUSIONS

FSW's Academic Support Center employed a series of assessments in order to support and strengthen the capabilities of each center (writing, math, and oral communications). Leadership goals included gauging achievement in composition courses, math courses, and oral communication courses as they relate to time spent receiving support from the associated learning center.

A drill-down of Writing Center results are as follows:

1. Achievement of a 10% increase in success rates in ENC 1101 or ENC 1102 for those receiving greater than two hours of consultation compared with those receiving less than two hours based on incoming GPA (SLO5) was met for three of five student cohorts at 50% higher for those with a GPA < 2.0, 12% higher for 2.0-2.49 GPA, 18% higher for 2.5-2.99 GPA, 9% higher for 3.0-3.49 GPA, and 3% higher for greater than or equal to 3.5 GPA.
2. A Cochran-Mantel-Haenszel (CMH) found the results in #1 above to be statistically significantly different.
3. In a comparison of success rate based on time spent in the ASC Writing Center regardless of inbound GPA, students spending two or more hours in the ASC Writing Center exhibit a success rate 9% higher in ENC1101 or ENC1102.
4. In a similar comparison of success rates based on number of visits to the ASC Writing Center instead of time spent, a steady increase from those with 0 visits compared with 2 or more also exists.
5. In a longitudinal study comparing spring 2015 with fall 2014, both semester exhibit improvement of 9% or better when comparing students with 120 minutes or more spent in the

ASC Writing Center compared with 0 time spent. Similar results exist in a comparison of number of visits to the center.

A drilldown drill-down of Math Center results are as follows:

1. Achievement of a 10% increase in success rates in MAT 0057, MAT 1033, MAT 1100, or MAC 1105 for those receiving greater than two hours of consultation compared with those receiving less than two hours based on incoming GPA (SLO6) was met in all cases except the lowest achieving students based on incoming GPA at 7% lower for those with a GPA < 2.0 (although only 3 students were both < 2.0 GPA and ≥ 2 hours consultation time), 3% higher for 2.0-2.49 GPA, 18% higher for 2.5-2.99 GPA, 19% higher for 3.0-3.49 GPA, and 10% higher for greater than or equal to 3.5 GPA.
2. A Cochran-Mantel-Haenszel (CMH) found the results in #1 above to be statistically significantly different.
3. In a comparison of success rate based on time spent in the ASC Math Center regardless of inbound GPA, students spending two or more hours in the center exhibit a success rate 12% higher in MAT 0057, MAT 1033, MAT 1100, or MAC 1105.
4. In a similar comparison of success rates based on number of visits to the ASC Math Center instead of time spent, a steady increase from those with 0 visits compared with 2 or more also exists.
5. In a longitudinal study comparing spring 2015 with fall 2014, both semester exhibit improvement of 7% or better when comparing students with 120 minutes or more spent in the ASC Math Center compared with 0 time spent. Similar results exist in a comparison of number of visits to the center.

A drill-down of Oral Communications Center results are as follows:

1. Achievement of a 10% increase in success rates in SPC 1017 or 2608 for those receiving greater than two hours of consultation compared with those receiving less than two hours based on incoming GPA (SLO7) was met in some cases, although a small sample size limits the impact of the study. Success rates for those receiving greater than two hours of consultation is 4% higher for those with a 2.0-2.49 GPA, 21% higher for 2.5-2.99 GPA, 10% higher for 3.0-3.49 GPA, and 21% higher for greater than or equal to 3.5 GPA.
2. A Cochran-Mantel-Haenszel (CMH) found the results in #1 above to be not statistically significantly different.
3. In a comparison of success rate based on time spent in the ASC Oral Communications Center regardless of inbound GPA, students spending two or more hours in the center exhibit a success rate 15% higher in SPC 1017 or 2608.
4. In a similar comparison of success rates based on number of visits to the ASC Oral Communications Center instead of time spent, a steady increase from those with 0 visits compared with 2 or more also exists.
5. In a longitudinal study comparing spring 2015 with fall 2014, both semester exhibit improvement of 15% or better when comparing students with 120 minutes or more spent in the ASC Oral Communications Center compared with 0 time spent. Similar results exist in a comparison of number of visits to the center.

6 REFERENCES

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