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ABSTRACT

In response to a District Student Services request, the Institutional Research Office of Miami-Dade Community College conducted a study of the new SLS intervention courses. The purpose of the research was to answer the following questions: 1) Did the SLS courses help in the retention of college preparatory students? 2) Did the SLS courses help students successfully complete college preparatory courses? and 3) Did the SLS courses help in the retention of Standards of Academic Progress (SOAP) students? The study found that college preparatory students who successfully completed SLS had a much higher Fall-to-Winter return rate (87.8%) than students who did not (67.6%). Results on the Standards of Academic Progress indicate a similar ratio: a 76.1% return rate among the students who completed SLS, compared to a 62.5% return rate among students who did not complete SLS. Further, based on nine examined courses, those students who successfully completed SLS had a high passing rate for college preparatory courses (75.6%) than did students who did not take SLS (62.5%). The sample for this study were 4,101 Fall term 1997 first-time-in-college students who tested below the placement score on one or more sub-tests of the CPT, and who had complete sets of scores. Contains 3 tables. (VF)

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**Evaluation of SLS Intervention Courses**

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# INFORMATION CAPSULE

I.C. No. 98-09C

July 1998

## Evaluation of SLS Intervention Courses

### Summary

*In May of 1998, District Student Services requested an evaluation of the new SLS intervention courses. Results for college preparatory students indicate that students who successfully completed SLS had a significantly higher Fall-to-Winter return rate (87.8% returned) than students who did not take SLS (67.6% returned). These results were true across five of the seven combinations of deficiencies. For the two exceptions, the sample size was too small to test significance for students who were below the placement score on writing alone, and a non-significant result was obtained for students who were below the placement score on reading alone.*

*A further examination of success in college preparatory courses indicates that students who successfully completed SLS had a significantly higher course passing rate (75.6% passed) than students who did not take SLS (62.5% passed). These results were true across seven of the nine courses examined. The two exceptions were MAT0024 and REA0001 where no significant difference was found.*

*Finally, results for students on the Standards of Academic Progress indicate that those who successfully completed SLS had a significantly higher Fall-to-Winter return rate (76.1% returned) than students who did not take SLS (55.8% returned). Detailed results are presented below.*

### Introduction and Method

In May of 1998, District Student Services met with Institutional Research to ask for an evaluation of the new SLS intervention courses for students who tested into college preparatory, and for students on the Standards of Academic Progress (SOAP). Three research questions emerged: (1) Did the SLS courses help in the retention of college preparatory students? (2) Did the SLS courses help students successfully complete college preparatory courses? and (3) Did the SLS courses help in the retention of SOAP students?

Files were accessed using SAS programs specifically written for this purpose. The college preparatory population consisted of Fall term 1997 first-time-in-college (new) students who tested below the placement score on one or more subtests of the CPT. Only students with a complete set of scores were included in the study. Further, any student who had ESL or ENS courses was eliminated. Of the 7,262 Fall term new students, 4,101 were included in the college preparatory study.

CPT Status	Number of Students	
<b><i>Below on one or more subtests</i></b>	<b>4,101</b>	<b><i>(Study Group)</i></b>
Passed all subtests	614	
No CPT Scores	1,053	
Partial CPT Scores	65	
ESL/ENS Courses	1,429	
<b>Total New Students</b>	<b>7,262</b>	

The SOAP study consisted of all Opening Fall Term 1997 students who began the term in a SOAP category other than Clear. Of the 45,746 credit students enrolled Opening Fall 1997, 4,999 were included in the study.

SOAP Status (Opening Fall 97-1)	Number of Students	
<b><i>Warning</i></b>	<b>1,373</b>	<b><i>(Study Group)</i></b>
<b><i>Probation</i></b>	<b>3,491</b>	<b><i>(Study Group)</i></b>
<b><i>Suspension</i></b>	<b>135</b>	<b><i>(Study Group)</i></b>
Clear	40,747	
<b>Total Opening Fall Students</b>	<b>45,746</b>	

**Results--  
Retention of  
College Preparatory  
Students**

Table 1 shows the Fall-to-Winter return rate of students who tested into college preparatory. Students are separated into groups based on their SLS status. The return rate of the group that took and passed SLS is compared with the return rate of the group that did not take SLS. The table includes a summary, and a separate analysis for each possible combination of CPT subtests failed. The normal approximation to the binomial distribution was used to assess the significance of the difference between proportions, with the level of significance set at 0.05.

Note from the summary that only 27% of the 4,101 students below on one or more subtest did not take one of the required SLS courses. The Winter return rate of this group was 67.6%, significantly below the 87.8% rate for those who took and passed SLS1505 or SLS1535.

The remainder of the Table gives analyses by specific subtests failed. Students below on only one area should have taken SLS1505, however some took SLS1535. Conversely, students below on two or more areas should have taken SLS1535, but some took SLS1505. An additional analysis was performed for the "alternate" course when sample size permitted. For five of the seven possible combinations of subtests failed, students who took and passed the appropriate SLS course showed a significantly higher return rate than those who did not take SLS. In all but one of the five combinations (Reading/Writing), the return rate was at least 20 percentage points higher. The SLS group showed no significant difference for students who failed only the Reading subtest, and the sample size was too small to test results for students who failed only the Writing subtest.

**Results--  
Retention of  
SOAP Students**

Table 3 shows the Winter return rate of students who began the Fall term in a non-Clear SOAP category. The return rate of the group that took and passed SLS1125 is compared with the return rate of the group that did not.

Note that the proportion of SOAP students who avoided the SLS course (73.4%) is much larger than the college preparatory groups analyzed previously. However, the summary data and individual category analyses show more than a 20 percentage point advantage in return rate for the SOAP students who took SLS. All of the comparisons are statistically significant.

## Conclusions

A sub-analysis was also done separately for students on SOAP due to withdrawals versus GPA. In all cases the return rate of students who took SLS1125 was significantly higher than that of students who did not.

The data presented in this capsule indicate that students who took and passed the SLS intervention courses during Fall Term 1997 had a higher Winter Term return rate, and were more likely to pass their college preparatory courses than students who did not take SLS. The few detailed areas that did not yield significant differences will be the topic of discussion by SLS coordinators for possible improvement. Additionally, District Student Services is investigating the high proportion of SOAP students who did not take the SLS intervention course.

Cathy Morris:ab

**Table 1**  
**Fall-to-Winter Return Rate of First-Time-in-College Students**  
**By SLS Status**

**CPT Test Results Summary: Below on One or More**

<i>SLS Status</i> , Fall 1997-1				Returned Winter 1997-2		
Passed* SLS1505	564	13.8%		495	<b>87.8%</b>	<b>Significant Difference</b> z= 8.905
No SLS	1,094	26.7%		740	<b>67.6%</b>	
Failed** SLS1505	128	3.1%		57	44.5%	p-value= 0.0000
Passed* SLS1535	1,789	43.6%		1,571	<b>87.8%</b>	<b>Significant Difference</b> z= 13.180
Failed** SLS1535	526	12.8%		233	44.3%	
Total	4,101	100.0%		3,096	75.5%	p-value= 0.0000

\*Grade of 'C' or better

\*\*Any grade other than 'A', 'B', 'C'

**CPT Test Results: Failed Math only**

<i>SLS Status</i> , Fall 1997-1				Returned Winter 1997-2		
Passed* SLS1505	272	37.1%		236	<b>86.8%</b>	<b>Significant Difference</b> z= 5.820
No SLS	319	43.5%		211	<b>66.1%</b>	
Failed** SLS1505	84	11.5%		36	42.9%	p-value= 0.0000
Passed* SLS1535	47	6.4%		41	<b>87.2%</b>	<b>Significant Difference</b> z= 2.915
Failed** SLS1535	11	1.5%		6	54.5%	
Total	733	100.0%		530	72.3%	p-value= 0.0018

\*Grade of 'C' or better

\*\*Any grade other than 'A', 'B', 'C'

**CPT Test Results: Failed Reading only**

<i>SLS Status</i> , Fall 1997-1				Returned Winter 1997-2		
Passed* SLS1505	155	47.3%		140	90.3%	<b>No Significant Difference</b> z= 1.575
No SLS	91	27.7%		76	83.5%	
Failed** SLS1505	23	7.0%		12	52.2%	p-value= 0.0576
Passed* SLS1535	51	15.5%		48	94.1%	sample size too small for normal approximation to the binomial distribution.
Failed** SLS1535	8	2.4%		7	87.5%	
Total	328	100.0%		283	86.3%	

\*Grade of 'C' or better

\*\*Any grade other than 'A', 'B', 'C'

**Table 1 (Continued)**  
**Fall-to-Winter Return Rate of First-Time-in-College Students**  
**By SLS Status**

**CPT Test Results: Failed Writing only**

<i>SLS Status</i> , Fall 1997-1	Returned	
	Fall 1997-1	Winter 1997-2
Passed* SLS1505	44 47.3%	42 95.5%
No SLS	33 35.5%	27 81.8%
Failed** SLS1505	3 3.2%	1 33.3%
Passed* SLS1535	11 11.8%	9 81.8%
Failed** SLS1535	2 2.2%	1 50.0%
Total	93 100.0%	80 86.0%

sample size too small  
for normal approximation  
to the binomial distribution.

\*Grade of 'C' or better

\*\*Any grade other than 'A', 'B', 'C'

**CPT Test Results: Failed Math/Reading**

<i>SLS Status</i> , Fall 1997-1	Returned	
	Fall 1997-1	Winter 1997-2
Passed* SLS1535	313 55.3%	282 90.1%
No SLS	144 25.4%	102 70.8%
Failed** SLS1535	69 12.2%	32 46.4%
Passed* SLS1505	33 5.8%	27 81.8%
Failed** SLS1505	7 1.2%	2 28.6%
Total	566 100.0%	445 78.6%

**Significant Difference**

z= 5.222

p-value= 0.0000

**No Significant Difference**

z= 1.280

p-value= 0.1002

\*Grade of 'C' or better

\*\*Any grade other than 'A', 'B', 'C'

**CPT Test Results: Failed Math/Writing**

<i>SLS Status</i> , Fall 1997-1	Returned	
	Fall 1997-1	Winter 1997-2
Passed* SLS1535	141 56.2%	116 82.3%
No SLS	58 23.1%	36 62.1%
Failed** SLS1535	36 14.3%	14 38.9%
Passed* SLS1505	13 5.2%	13 100.0%
Failed** SLS1505	3 1.2%	2 66.7%
Total	251 100.0%	181 72.1%

**Significant Difference**

z= 3.049

p-value= 0.0110

sample size too small  
for normal approximation  
to the binomial distribution.

\*Grade of 'C' or better

\*\*Any grade other than 'A', 'B', 'C'

**Table 1 (Continued)**  
**Fall-to-Winter Return Rate of First-Time-in-College Students**  
**By SLS Status**

**CPT Test Results: Failed Reading/Writing**

<i>SLS Status</i> , Fall 1997-1		Returned		
		Winter 1997-2		
Passed* SLS1535	257 60.9%	239	<b>93.0%</b>	<b>Significant Difference</b> z= 3.439
No SLS	91 21.6%	73	<b>80.2%</b>	
Failed** SLS1535	51 12.1%	26	51.0%	p-value= 0.0003
Passed* SLS1505	21 5.0%	19	90.5%	sample size too small for normal approximation to the binomial distribution.
Failed** SLS1505	2 0.5%	2	100.0%	
<b>Total</b>	<b>422 100.0%</b>	<b>359</b>	<b>85.1%</b>	

\*Grade of 'C' or better  
\*\*Any grade other than 'A', 'B', 'C'

**CPT Test Results: Failed All Three**

<i>SLS Status</i> , Fall 1997-1		Returned		
		Winter 1997-2		
Passed* SLS1535	969 56.7%	836	<b>86.3%</b>	<b>Significant Difference</b> z= 10.445
No SLS	358 21.0%	215	<b>60.1%</b>	
Failed** SLS1535	349 20.4%	147	42.1%	p-value= 0.0000
Passed* SLS1505	26 1.5%	18	69.2%	<b>No Significant Difference</b> z= 0.925
Failed** SLS1505	6 0.4%	2	33.3%	
<b>Total</b>	<b>1,708 100.0%</b>	<b>1,218</b>	<b>71.3%</b>	p-value= 0.1775

\*Grade of 'C' or better  
\*\*Any grade other than 'A', 'B', 'C'



**Table 2**  
**College Prep Success Rate of First-Time-in-College Students**  
**By SLS Status**

**Summary: All College Preparatory Courses**

<b>SLS Status*</b>	<b>Took Course</b>		<b>Passed Course ('S')</b>		<b>Significant Difference</b> z= 9.157 p-value= 0.0000
Took & Passed	3,746	61.2%	2,832	<b>75.6%</b>	
Did Not Take	1,343	21.9%	840	<b>62.5%</b>	
Took & Failed	1,033	16.9%	279	27.0%	
Total	6,122	100.0%	3,951	64.5%	

\*(SLS1505 and SLS1535 combined)

**ENC0002**

<b>SLS Status*</b>	<b>Took Course</b>		<b>Passed Course ('S')</b>		<b>Significant Difference</b> z= 2.395 p-value= 0.0083
Took & Passed	256	60.2%	208	<b>81.3%</b>	
Did Not Take	87	20.5%	60	<b>69.0%</b>	
Took & Failed	82	19.3%	23	28.0%	
Total	425	100.0%	291	68.5%	

\*(SLS1505 and SLS1535 combined)

**ENC0020**

<b>SLS Status*</b>	<b>Took Course</b>		<b>Passed Course ('S')</b>		<b>Significant Difference</b> z= 3.072 p-value= 0.0011
Took & Passed	538	63.8%	441	<b>82.0%</b>	
Did Not Take	181	21.5%	129	<b>71.3%</b>	
Took & Failed	124	14.7%	41	33.1%	
Total	843	100.0%	611	72.5%	

\*(SLS1505 and SLS1535 combined)

**ENC0021**

<b>SLS Status*</b>	<b>Took Course</b>		<b>Passed Course ('S')</b>		<b>Significant Difference</b> z= 1.944 p-value= 0.0259
Took & Passed	296	62.4%	221	<b>74.7%</b>	
Did Not Take	83	17.5%	53	<b>63.9%</b>	
Took & Failed	95	20.0%	28	29.5%	
Total	474	100.0%	302	63.7%	

\*(SLS1505 and SLS1535 combined)

**MAT0003**

<b>SLS Status*</b>	<b>Took Course</b>		<b>Passed Course ('S')</b>		<b>Significant Difference</b> z= 3.174 p-value= 0.0008
Took & Passed	301	58.0%	191	<b>63.5%</b>	
Did Not Take	124	23.9%	58	<b>46.8%</b>	
Took & Failed	94	18.1%	19	20.2%	
Total	519	100.0%	268	51.6%	

\*(SLS1505 and SLS1535 combined)

**Table 2 (Continued)**  
**College Prep Success Rate of First-Time-in-College Students**  
**By SLS Status**

**MAT0012**

<b>SLS Status*</b>	<b>Took Course</b>		<b>Passed Course ('S')</b>		
Took & Passed	359	56.9%	207	<b>57.7%</b>	<b>Significant Difference</b> z= 2.067 p-value= 0.0194
Did Not Take	151	23.9%	72	<b>47.7%</b>	
Took & Failed	121	19.2%	20	16.5%	
Total	631	100.0%	299	47.4%	

\*(SLS1505 and SLS1535 combined)

**MAT0024**

<b>SLS Status*</b>	<b>Took Course</b>		<b>Passed Course ('S')</b>		
Took & Passed	416	55.0%	279	67.1%	<b>No Significant Difference</b> z= 1.282 p-value= 0.1000
Did Not Take	243	32.1%	151	62.1%	
Took & Failed	98	12.9%	24	24.5%	
Total	757	100.0%	454	60.0%	

\*(SLS1505 and SLS1535 combined)

**REA0001**

<b>SLS Status*</b>	<b>Took Course</b>		<b>Passed Course ('S')</b>		
Took & Passed	407	65.6%	324	79.6%	<b>No Significant Difference</b> z= 0.646 p-value= 0.2590
Did Not Take	94	15.2%	72	76.6%	
Took & Failed	119	19.2%	37	31.1%	
Total	620	100.0%	433	69.8%	

\*(SLS1505 and SLS1535 combined)

**REA0002**

<b>SLS Status*</b>	<b>Took Course</b>		<b>Passed Course ('S')</b>		
Took & Passed	792	63.1%	659	<b>83.2%</b>	<b>Significant Difference</b> z= 6.692 p-value= 0.0000
Did Not Take	257	20.5%	163	<b>63.4%</b>	
Took & Failed	206	16.4%	61	29.6%	
Total	1,255	100.0%	883	70.4%	

\*(SLS1505 and SLS1535 combined)

**REA0010**

<b>SLS Status*</b>	<b>Took Course</b>		<b>Passed Course ('S')</b>		
Took & Passed	381	63.7%	302	<b>79.3%</b>	<b>Significant Difference</b> z= 2.852 p-value= 0.0022
Did Not Take	123	20.6%	82	<b>66.7%</b>	
Took & Failed	94	15.7%	26	27.7%	
Total	598	100.0%	410	68.6%	

\*(SLS1505 and SLS1535 combined)

**Table 3**  
**Fall-to-Winter Return Rate of Students on the Standards of Academic Progress\***  
**By SLS Status**

**Summary of Students on SOAP Opening Fall**

<i>SLS1125 Status</i> , Closing Fall			Returned Winter 1997-2		
Took & Passed	813	16.3%	619	<b>76.1%</b>	<b>Significant Difference</b> z= 10.690 p-value= 0.0000
Did Not Take	3,667	73.4%	2,046	<b>55.8%</b>	
Took & Failed	519	10.4%	174	33.5%	
Total	4,999	100.0%	2,839	56.8%	

**SOAP Status Opening Fall: Warning**

<i>SLS1125 Status</i> , Closing Fall			Returned Winter 1997-2		
Took & Passed	207	15.1%	162	<b>78.3%</b>	<b>Significant Difference</b> z= 5.348 p-value= 0.0000
Did Not Take	988	72.0%	577	<b>58.4%</b>	
Took & Failed	178	13.0%	64	36.0%	
Total	1,373	100.0%	803	58.5%	

**SOAP Status Opening Fall: Probation**

<i>SLS1125 Status</i> , Closing Fall			Returned Winter 1997-2		
Took & Passed	574	16.4%	436	<b>76.0%</b>	<b>Significant Difference</b> z= 9.045 p-value= 0.0000
Did Not Take	2,602	74.5%	1443	<b>55.5%</b>	
Took & Failed	315	9.0%	107	34.0%	
Total	3,491	100.0%	1986	56.9%	

**SOAP Status Opening Fall: Suspension**

<i>SLS1125 Status</i> , Closing Fall			Returned Winter 1997-2		
Took & Passed	32	23.7%	21	<b>65.6%</b>	<b>Significant Difference</b> z= 3.059 p-value= 0.0220
Did Not Take	77	57.0%	26	<b>33.8%</b>	
Took & Failed	26	19.3%	3	11.5%	
Total	135	100.0%	50	37.0%	



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