

Achieving the Dream Report Series



January 25, 2010

Comparing Outcomes for Students who received Supplemental Instruction to those who did not – College Algebra & Trigonometry (MAT130)

During the Fall 2009 semester, the college ran 4 sections of MAT130. One section was selected to receive supplemental instruction (SI). The entering average cumulative GPA (4.0 scale) for the SI section was 2.89 versus 2.85 for the 3 non-SI sections.

The course completion rate for the MAT130 SI section was 71% (15 of 21 completed with A – C). This compares to a combined completion rate for the 3 non-SI sections of 48% (39 of 81 completed). As is evident in the data table below, both males and females performed better in the SI section. The ≤ 25 age group performed better in the SI section. Majority and Hispanic students performed better in the SI section.

This is the second semester (Spring 2009 was the first) that the college offered supplemental instruction and the results are very similar. For Spring 2009 the course completion for the SI section was 61% versus 44% for the 3 non-SI sections.

Supplemental Instruction was offered for the first time in a MAT120 "College Algebra" course this past Fall. The course completion rate for this section was 100% (10 for 10) while the course completion rate for all sections was 69%. Basic Algebra II - MAT022 was also offered for the first

time as an SI section and its completion rate was 76% (16 for 21) while the average course completion rate for all sections was 66%.

There are many variables (not controlled for) that may have influenced this result. Some of these variables are: individual faculty, math ability and student motivation.

Further study is needed to measure the success of this treatment. The college will continue to monitor completion rates of courses taught with supplemental instruction. Three math classes (College Algebra, College Algebra with Trigonometry and Basic Algebra II) with Supplemental Instruction will be run in Spring 2010 and the success of these courses will be compared to like courses not receiving the treatment. Supplemental Instruction will be used for the first time this Spring in the disciplines of Chemistry, Biology and Writing (CHM111, BIO121 and WRT010).

Interpretations of these findings as well as suggestions for further analysis are always welcome. Please direct questions and comments to Thomas Fallon, Dean of Institutional Research and Planning, via phone at 978-556-3866 or email at tfallon@necc.mass.edu.

<http://www.necc.mass.edu/irp/planning/dream.php>

**ATD Evaluation
Fall 2009: MAT 130**

With Supplemental Instruction (CRN: 7677)

Without Supplemental Instruction (CRNs: 7678, 7679, 8027)

	# Complete			# Complete		
	# Enrolled	(Grades A-C)	% Complete	# Enrolled	(Grades A-C)	% Complete
Total	21	15	71%	81	39	48%
Gender						
Female	4	3	75%	22	10	45%
Male	17	12	71%	59	29	49%
Ethnicity						
Majority (w)	15	10	67%	55	25	45%
Hispanic	5	4	80%	17	9	53%
Minority (A, B, I)	-	-	-	2	1	50%
Other (Missing/Unknown, NRA)	1	1	100%	7	4	57%
Age						
<=25	19	15	79%	68	32	47%
>25	2	0	0%	13	7	54%
Start of Spring 2009 Term:						
<u>Earned Credits</u>						
Sum	427			1,086		
Average	24			21		
<u>Average GPA</u>	2.89			2.85		
End of Spring 2009 Term:						
<u>Average GPA</u>	2.66			2.5		