

**2006 Report  
Pennsylvania Center**

**Report on the Effectiveness of Mathnasium Learning Center Teaching  
on Student Performance  
on Standards-based Mathematics Tests**

prepared by

John B. Watson, Ph.D. and the staff of



Watson Education  
San Diego, California.  
619-299-2255

October, 2006

Standards-based, grade-level pre-tests were delivered to 21 elementary, middle, and high school students at the Pennsylvania Mathnasium center as they entered the center's tutoring program (as students enrolled at the center). These enrollments took place between August, 2005 and December, 2005. The posttests, testing mastery of the same standards-based skills with the same level of difficulty as the pre-test, were administered to the students between December 2005 and late March, 2006. The average treatment period covered 120 days.

Test data was collected, individual student pre and posttest scores were matched by student, and results were analyzed using methods that include calculating the percentage increase or decrease between the pre and posttest. An average percentage increase was also calculated. In all cases, the students performed better on posttests. The complete results are displayed in Table 2. Overall, the students showed an average 26.4% increase in percent correct on the posttest as compared to the pretest. A summary of the results, by tested grade level, are shown below in Table 1. It should be noted that the results were similar across grade levels and test grade level (1 through 8).

Table 1. Summary of Results

<b>Test Level</b>	<b>Avg. Improvement</b>	<b>Avg. Period</b>	<b>N</b>
1	30%	97.33	3
A,B	35%	117.00	1
2	25%	94.00	4
3	20%	101.50	2
4	31%	147.20	5
6	13%	141.00	2
8	32%	122.00	2
G,H,J	20%	138.00	2

While these data are not numerous enough to yield resultant statistics that demonstrate statistically significant results, nor have we taken into account the effect on these scores introduced by concurrent classroom instruction, they do add to and bolster the findings of the earlier statistical reports on the effectiveness of the Mathnasium Learning Center method.

Table 2. Mathnasium data – Fall 2005 – Early 2006 PA. tutoring students.

<b>Test Level</b>	<b>Grade</b>	<b>Start Date</b>	<b>PctCorr</b>	<b>End Date</b>	<b>PctCorr</b>	<b>InclnPct</b>	<b>Treatment Period</b>
1	2	11/15/2005	35.0%	2/22/2006	62.5%	27.5%	99
1	2	9/14/2005	62.5%	12/1/2005	87.5%	25.0%	78
1	2	10/26/2005	20.0%	2/18/2006	57.5%	37.5%	115
A,B	1	11/30/2005	41.9%	3/27/2006	77.4%	35.5%	117
2	3	12/20/2005	43.9%	2/11/2006	73.7%	29.8%	53
2	3	10/26/2005	59.6%	1/4/2006	91.2%	31.6%	70
2	4	8/3/2005	52.6%	12/21/2005	63.2%	10.5%	140
2	3	9/12/2005	40.4%	1/3/2006	70.2%	29.8%	113
3	5	7/21/2005	66.7%	11/8/2005	84.2%	17.5%	110
3	4	9/26/2005	24.6%	12/28/2005	47.4%	22.8%	93
4	5	8/10/2005	15.9%	2/28/2006	40.2%	24.4%	202
4	6	9/10/2005	40.2%	1/2/2006	65.9%	25.6%	114
4	5	10/26/2005	28.0%	2/15/2006	73.2%	45.1%	112
4	5	9/14/2005	37.8%	12/20/2005	80.5%	42.7%	97
4	6	8/1/2005	47.6%	2/28/2006	67.1%	19.5%	211
6	8	8/10/2005	58.8%	1/5/2006	72.2%	13.4%	148
6	8	6/17/2005	69.1%	10/29/2005	81.4%	12.4%	134
8	10	6/21/2005	10.8%	10/31/2005	46.2%	35.4%	132
8	9	8/29/2005	30.8%	12/19/2005	60.0%	29.2%	112
G,H,J	9	10/3/2005	60.5%	2/18/2006	73.7%	13.2%	138
G,H,J	9	10/3/2005	50.0%	2/18/2006	76.3%	26.3%	138