

## Improving Student Performance, Student Engagement and Teacher Effectiveness with Quantum Learning for Teachers

Sarah Singer Nourie

Field-Based Masters Program, Saint Xavier University and IRI/Skylight, Chicago, IL, May, 1998.

Results of implementing Quantum Learning in the Thornton Township High School District,  
South Holland, IL.

2047 student population (37% low income, 83% African-American, 13% Caucasian, 4% other) 452 faculty.  
Approximately 60 teachers and 600 students were involved in the Quantum Learning Pilot Program.

Post intervention data indicated increased student learning, attendance, and improved attitude toward school. Students also showed increased math and reading skills, both on standardized tests and class grades. Post intervention data also revealed improved teachers effectiveness and satisfaction.

- Ninth grade “low-level” students in math and English increase their mathematical problem solving ability to 9<sup>th</sup> grade level
- Students had 2.9 fewer periods absent, a significant gain in this highly transient population.
- According to the Normal Curve Equivalent (NCE), students accelerated their learning and skills equivalent to 21 instructional months’ growth (more than two school years) in only 22 days.

### ENGLISH I Grade Distribution

	Regular Students	Students who without Quantum Learning would’ve Been placed in remedial math
A	6%	1%
B	19%	9%
C	28%	28%
D	29%	42%
F	17%	19%

- 13% more Acceleration students passed with a D grade
- These students started out so much further behind than the regular students, but still their performance nearly equaled anyhow.

### SPEECH I Grade Distribution

A	8%	5%
B	25%	25%
C	36%	37%
D	19%	22%
F	12%	9%

- 3% more “regular” students failed Speech I than those Accelerated up from deficiency.
- Accelerated students virtually equaled the regular students in their A, B, C and D grade distribution for Speech I.

### ALGEBRA I Grade Distribution

A	7%	6%
B	11%	9%
C	22%	24%
D	21%	26%
F	38%	33%

- Students who were able to enter Algebra I as ninth graders rather than the remedial math course they would have taken
- 5% fewer Acceleration students failed compared to regular students.
- Former Acceleration students almost matched the regular students in the A, B, and C range of grades
- 67% of former Acceleration students passed Algebra while only 62% of regular students passed.
- Students who accelerated their performance from a much lower starting point were able to sustain their performance at “grade level” more often than those who already had the skills to do so.

Stanford Diagnostic Reading Test Distribution

- 47% of the students made gains in their reading comprehension skills
- 55% of the students made gains in their vocabulary

In Spring 1997 incoming ninth graders were identified who were performing below grade level in Math and English. These students had the highest frequency of absentees and behavioral problems, slowest gains in achievement and most apathy toward school and learning. Results after attending a 22 day “Quantum Learning” summer school:

- 2+ year gain in math (students who did not yet reach grade level)
- 6+ year gain in math (students who reached grade level)
- 67% passed Algebra (only 62% of ‘regular’ students passed)

37% reduction in absenteeism (7.9 average periods missed to 5.0)

After using Quantum Learning, teachers report...

- 100% Reported being better teachers
- 94% report more awareness of students learning styles and needs
- 86% report making more meaningful connections with students
- 83% report raised personal teaching standards

	<u>Before QL</u>	<u>After QL</u>
Students complete assignments	70%	83%
Ability to interest students	45%	83%
Freedom from frustration in their teaching	68%	100%
Job satisfaction	65%	83%
Students are flexible, open positive attitude	60%	69%

After experiencing Quantum Learning, students report...

- 68% report better attendance
- 66% report better behavior
- 60% report following class rules more often
- 68% report enjoying learning more in QL class

	<u>Before QL</u>	<u>After QL</u>
Higher esteem as a learner	68%	89%
Consider themselves academic performers	46%	82%
Knowledge of how to interest self in class quickly	41%	64%
Ability to memorize and retain unrelated facts	31%	63%
Give 100% in class	55%	73%
Like their teachers	44%	79%

	before	after
• Students are interested in learning in my class Most of the time	45%	83%
• Students complete their class work	70%	83%
• I am frustrated in my teaching much of the time	32%	0%
• I get joy and satisfaction from teaching these students	65%	83%
• I am able to motivate students in their Learning Forum	52%	69%
• 83% of teachers raised own standards from themselves		
• 88% take more risks in teaching		
• 94% have added strategies to their teaching repertoire		
• 86% make more meaningful connections w/students		
• 64 % opened their acceptance to new ideas		
• 67% of students believe their grades really do show how smart they are ( 15% increase).		