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## Newark Students Demonstrate Dramatic Gains in Algebra Scores

grade physics course on the Algebra I End of Course (EOC) test for 9<sup>th</sup> graders in ools is surprisingly large and encouraging news, according to CTL Director Dr. Robert

Goodman. "Especially when we consider that the successful completion of Algebra I by the end of 9th grade is the second best indicator of whether a student will graduate from college."

Students taking the Progressive Science Initiative (PSI) algebra based physics course, instead of a nonphysics science course, along with Algebra I, outscored their peers. On average, PSI students scored 44 points higher on the End Of Course test. According to CTL Executive Director Bob Goodman "This 14% gain in algebra achievement scores confirms what we expected - that taking the PSI physics course would significantly improve student achievement in mathematics."

Last year, PSI was offered to Newark students for the first time through a collaborative effort of the New Jersey Center for Teaching and Learning, the New Jersey Department of Education, Kean University and Newark Public Schools. In prior research, PSI had been shown to dramatically improve student participation and achievement on Advanced Placement (AP) science exams. Already, a much higher percentage of Newark students are enrolled in AP Physics B; their AP exam scores will be available in July.

"What jumps out in this 14% gain is that knowledge is being transferred between subject areas, in this case from science to mathematics, and that's good news", said Dr. Goodman. While this was not based on random groups of students, so selection bias cannot be ruled out, if the district-wide expansion of PSI were to yield the same 14% gain, as CTL expects it would, that would be a great success story for Newark students."

The Newark Education Trust (<u>http://newarktrust.org</u>) recently named PSI as one of The Top 11 programs for 2011 for NPS.

CTL is an independent 501(c)3 organization whose mission is to empower teachers to lead school transformation. For more on CTL, check out <u>www.njctl.org</u>