



Effectiveness of CompassLearning's Odyssey Reading for Middle School

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Odyssey Reading, published by CompassLearning, is a comprehensive reading/language arts program using adaptive software for core instruction. This is the first study of CompassLearning's Odyssey Reading (*CLO*) in PUSD and was based on data from the school years 2006-2009. For this study, Odyssey Reading was implemented in reading classes in grades 6 through 8.

Study Description

Study design

The study addressed this question: Has *CLO* had a positive impact on overall middle school student literacy scores throughout the district?

This quasi-experimental study used an interrupted time series with comparison group design, where the effectiveness of *CLO* was tested by comparing student scores from the years after the introduction and implementation of *CLO* to student scores prior to the use of *CLO*, as well as a comparison of achievement for students who used *CLO* to achievement of students who did not use *CLO*.

Participants

The identification of subjects for this study sought to create conditions that would allow for controlling of individual differences and peer effects between the *CLO* and comparison groups. Only students who had complete sets of test data over the span of three years (and three scores per year) were selected. As *CLO* was introduced in 2008 in all middle schools but not at all grade levels (see the leftmost column in the table below), the comparison group comprised only non-*CLO* students in grades where *CLO* was implemented. In addition, students who were explicitly designated as English learners or students with disabilities were excluded from the analysis sample.

Numbers of participants in the final study analysis are shown in the following table.

	Number of schools	Number of students	
		Comparison	<i>CLO</i>
Grade 6	5	153	89
Grade 7	5	191	140
Grade 8	2	42	20
Totals	6	386	249

Outcome measures and calculations

Findings of this study are based on data from the Northwest Evaluation Association's Measures of Academic Progress Literacy Assessment (MAP Literacy), administered in the 2006-2007, 2007-2008, and 2008-2009 academic years.

This study was provided as a MeasureResults® service by Empirical Education Inc.

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Estimates of the program impact were obtained using a method called panel data regression, which controls for variation in student characteristics (demographics and SES), seasonal effects, persistent differences in achievement among students, and accounts for clustering of students by school.

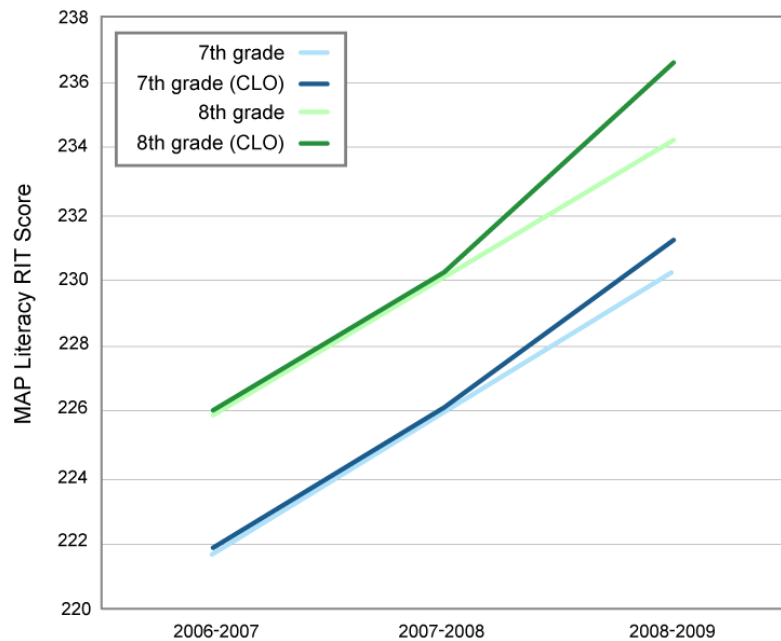
Levels of confidence in our results: Results are reported based on statistical calculations that give a measure of confidence expressed as a probability or p value. A low p value indicates a low probability that we would detect a difference like the one found in the study if no difference actually existed. A p value less than .05 gives us strong confidence in the result (a level conventionally called statistically significant), while a p value greater than .20 gives no confidence. Between the two we may have some or limited confidence.

Results

Has CLO had a positive impact on overall middle school student literacy scores throughout the district?

Yes, CLO had a positive impact on 7th and 8th grade achievement on MAP Literacy. CLO did not appear to have either a positive or negative impact on 6th grade literacy achievement.

On average, 7th graders who used CLO scored 1.17 points higher than expected on MAP Literacy (or roughly 5 percentile points); 8th graders who used CLO scored 2.38 points higher on MAP Literacy (or roughly 10 percentile points). This translates to about an additional 27% of a year's growth for 7th graders, and a 60% of a year's growth for 8th graders. The accompanying graph displays this positive effect: after the implementation and use of CLO in the 2007-2008 school year, students who used CLO (represented by the darker lines) scored higher than the average expected effect. Both results are statistically significant (p values < .01). No significant gain or loss was found in achievement scores for 6th graders (p value = .35).



Conclusion

This study found a positive impact of CLO on literacy achievement for 7th and 8th grade students. The study did not find any statistically significant effects of CLO use for 6th graders. This simply means that CLO was in the same range of effectiveness as the 6th grade literacy programs currently in place.

PUSD plans to continue studying the effectiveness of CLO in the district, and is particularly interested in 6th grade implementation. Additional questions include:

- 1) How does the implementation of CLO impact middle school achievement in mathematics?
- 2) How do different levels of exposure to CLO impact student achievement for elementary school students?

Cautions for interpreting these results:
 The current analysis does not factor in teacher-student linkages. This data proved difficult to obtain due to the fluidity of the grade assignments for teachers from year to year. More complete teacher-student linkage data will provide a more comprehensive analysis of the impact of CLO.