

# RoxieReading A, 1, and 3 produced statistically higher scores in DIBELS and ISTEP.

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## Summary

In the Fall of 2007- 2008, a cohort of 25 first grade students piloted RoxieReading A and RoxieReading 1. The following year, RoxieReading A, 1, and 3 were implemented in the K-3 classrooms with varying degrees of fidelity.

In this study, 2010-2012 scores were compared with the scores of 2006-2007 (pre-RoxieReading) to determine the effectiveness of implementing this curriculum. Students scores from 2010-2012 were statistically higher in a range of assessments than student scores from 2006-2007.

## Description of Population

- K - 3 students
- Mid-size town in Indiana
- Elementary Title 1 school
- School with 77 percent of the students on free or reduced lunch
- School with 55 percent white and 45 percent black, Hispanic, and multiracial

## Time

- Four years: (2006 - 2010)

## Data Collection

- DIBELS (Dynamic Indicators of Basic Early Literacy Skills) measures various reading skills. Students in kindergarten through second grade took various sections of DIBELS tests specific to their grade levels at the beginning and end of each year.
- ISTEP (Indiana Statewide Testing for Educational Progress) is a standardized test given to all 3rd grade students in Indiana. Students took ISTEP tests in the spring of their third grade year. Only the English/Language Arts section scores were used in this study.

## Purpose

The purpose of this study was to determine the effectiveness of *RoxieReading* on student reading achievement.

## Results with ISTEP

- The scores on the English portion of the ISTEP of all Grade 3 students in 2008 (n = 59) were compared with the scores of all Grade 3 students in 2011 (n = 72) .
- Students in 2011 scored statistically higher than students in 2008 at  $p < .01$ . Gender, ethnicity, and socioeconomic status made no difference. Students in 2011 had been taught with RoxieReading.

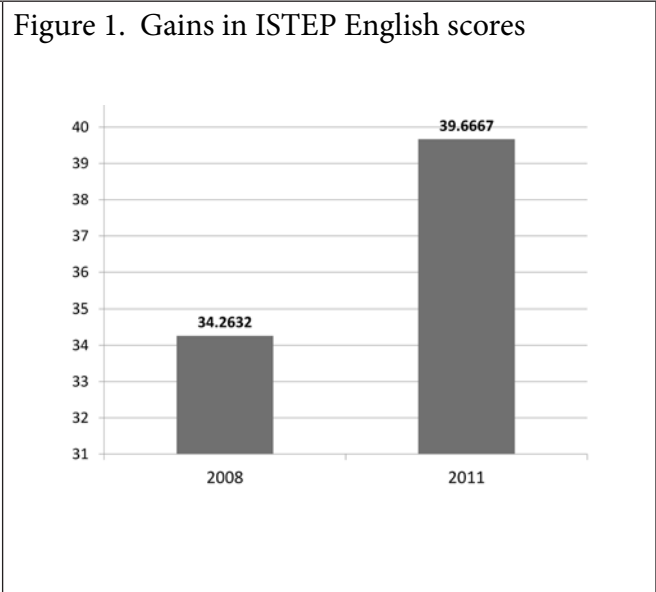


Table 1. Comparison of 2007-2008 ISTEP scores with 2011-2012 scores

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
English_Number_Correct_All	Equal variances assumed	6.988	.009	-3.642	124	.000	-7.51945	2.06461	-11.60590	-3.43300
	Equal variances not assumed			-3.760	121.321	.000	-7.51945	1.99980	-11.47848	-3.56042

## Results for DIBELS Kindergarten

- Kindergarten students at the end of 2010-11 scored statistically higher in all tests at  $p < .01$  than kindergarten students at the end of 2006-2007.

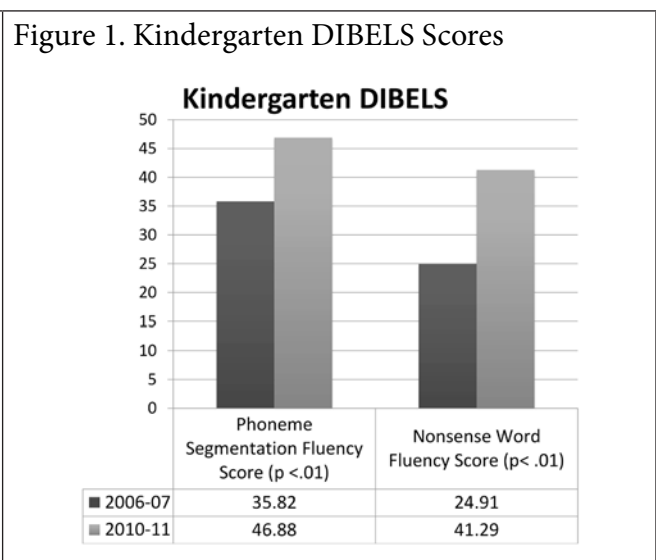


Table 2: Comparison of 2007-2008 Kindergarten DIBELS scores with 2011-2012 scores

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Phoneme Segmentation Fluency	Equal variances assumed	29.915	.000	-2.968	127	.004	-.300	.101	-.500	-.100
	Equal variances not assumed			-2.580	62.891	.012	-.300	.116	-.532	-.068
Phoneme Segmentation Fluency	Equal variances assumed	1.473	.227	-4.245	126	.000	-11.057	2.605	-16.212	-5.902
	Equal variances not assumed			-3.987	75.627	.000	-11.057	2.774	-16.582	-5.533
Nonsense Words Fluency	Equal variances assumed	47.688	.000	-5.517	127	.000	-.63332	.11478	-.86045	-.40618
	Equal variances not assumed			-4.690	59.507	.000	-.63332	.13505	-.90350	-.36313
Nonsense Words Fluency	Equal variances assumed	.944	.333	-4.753	127	.000	-16.376	3.446	-23.194	-9.558
	Equal variances not assumed			-5.112	113.525	.000	-16.376	3.204	-22.723	-10.029
Instant Recognition	Equal variances assumed	8.681	.004	-4.632	127	.000	-.60215	.12999	-.85938	-.34492
	Equal variances not assumed			-4.304	75.124	.000	-.60215	.13990	-.88083	-.32347

## Results for DIBELS 1st Grade

- First grade students at the end of 2010-11 scored statistically higher in 5 of the 7 tests than first grade students at the end of 2006-2007.

Figure 2. First Grade DIBELS Scores

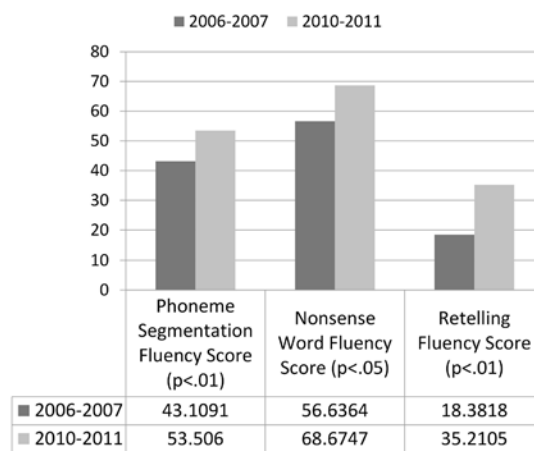


Table 3: Comparison of 2007-2008 First Grade DIBELS scores with 2011-2012 scores

		<b>F</b>	<b>Sig.</b>	<b>t</b>	<b>df</b>	<b>Sig. (2-tailed)</b>	<b>Mean Difference</b>	<b>Std. Error Difference</b>	<b>Lower</b>	<b>Upper</b>
Phoneme Segmentation Fluency	Equal variances assumed	94.531	.000	-4.141	136	.000	-.242	.059	-.358	-.127
	Equal variances not assumed			-3.427	57.240	.001	-.242	.071	-.384	-.101
Phoneme Segmentation Fluency	Equal variances assumed	5.581	.020	-5.002	136	.000	-10.39693	2.07852	-14.50733	-6.28653
	Equal variances not assumed			-4.669	89.018	.000	-10.39693	2.22689	-14.82170	-5.97217
Nonsense Words Fluency	Equal variances assumed	18.563	.000	-4.099	136	.000	-.432	.105	-.640	-.224
	Equal variances not assumed			-3.802	86.827	.000	-.432	.114	-.658	-.206
Nonsense Words Fluency	Equal variances assumed	.000	.984	-2.366	136	.019	-12.03834	5.08840	-22.10095	-1.97572
	Equal variances not assumed			-2.360	114.899	.020	-12.03834	5.09991	-22.14037	-1.93630
Oral Reading Fluency	Equal variances assumed	3.554	.062	-1.523	136	.130	-.191	.126	-.440	.057
	Equal variances not assumed			-1.469	101.249	.145	-.191	.130	-.450	.067
Oral Reading Fluency	Equal variances assumed	.000	.991	-.904	136	.368	-4.60263	5.09043	-14.66927	5.46401
	Equal variances not assumed			-.892	110.360	.374	-4.60263	5.16009	-14.82834	5.62308
Retelling	Equal variances assumed	13.335	.000	-5.597	110	.000	-16.82871	3.00699	-22.78786	-10.86956
	Equal variances not assumed			-5.651	87.247	.000	-16.82871	2.97779	-22.74716	-10.91026