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The Impact of Rocket Learning Tutoring on Reading Achievement during the 2009-2010 School Year

METROPOLITAN CENTER FOR URBAN EDUCATION

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Overview

Metro Center

The Metropolitan Center for Urban Education (Metro Center) at New York University conducted an independent evaluation of the Rocket Learning program. We analyzed student level achievement data of Rocket Learning participants and non-participants from the following sites: Chicago, California and Northeast (New York and New Jersey).

Rocket Learning

Founded in 2004, Rocket Learning is one of the nation's leading Supplemental Educational Services ("SES") providers, offering tutoring services mandated under Title I of the Elementary and Secondary Education Act (ESEA). Rocket has provided literacy and/or mathematics tutoring to more than 150,000 low-income students in over 1,500 partner schools. Rocket Learning is minority owned and operated and provides tutoring services in sixteen states, Washington, D.C. and the commonwealth of Puerto Rico.

Methods

The primary source of data for the analysis was pre- and post-tests of students participating in the Rocket Learning program during the 2009-2010 school year in three geographic regions: California, the Northeast and Chicago Public Schools. Additionally, a control group was drawn from the Chicago Public Schools consisting of students who did not participate in the Rocket Learning program, but were likely to be eligible for participation. Participants in the California and the Northeast regions took the Pearson's *Group Reading Assessment and Diagnostic Evaluation* (GRADE) pre- and post-tests, while students in the Chicago Public Schools took the Pearson's *Stanford Diagnostic Reading Test* (SDRT). In order to examine if participation in Rocket Learning is having a positive impact on the achievement levels of participants on standardized tests, these assessments were administered immediately before and after their participation. In addition, a one-sample t-test on these differences was conducted to see if the average difference between the post-tests and pre-tests in each of the regions was statistically significant. With the Chicago sample of participants and non-participants, an independent sample t-test was used to determine if the difference in pre- and post-test scores for the Rocket Learning students was statistically greater than those of the control group.

Key Findings

- **Students in Rocket Learning demonstrated statistically significant achievement gains by all measures - state tests, standardized pre-/post-tests and student grades.**
- **Rocket Learning participants have greater gains than a comparable group of non-participants from the same schools.**
- **Although Rocket Learning students demonstrated gains on state tests, other more targeted instruments more accurately reflect the academic improvement of Rocket Learning's targeted tutoring approach.**
- **Rocket Learning tutors very needy students.**

Data Highlights

Students in Rocket Learning demonstrated statistically significant achievement gains by all measures - State Tests, Standardized Pre-/Post-Tests and Student Grades.

- The ISAT is scaled so that the expected growth each year is 10 points. Overall, Rocket Learning participants increased their test scores slightly higher than the expected growth – 10.6 points. (Table 1)

Table 1: Mean Growth on Reading Scale Scores between 2008 and 2009 by Hours of Rocket Learning Program Participation

Hours	#	Mean	Std Dev	Min	Max
Less than 30	216	11.9	15.4	-38.0	64.0
30 or more	457	9.9	16.4	-38.0	71.0
Total	673	10.6	16.1	-38.0	71.0

- Another pattern observable is that between 2007-2008 and 2008-2009 there is a notable decrease in the proportion of Rocket Learning participants receiving Ds and Fs in reading. The proportion decreased from nearly 32 percent to 25 percent. Similarly, the proportion that received As and Bs increased from 28 percent to 32 percent. (Table 2)

Table 2: Reading Course Grades for Rocket Learning Participants for the 2007-2008 and 2008-2009 School Years by Hours of Rocket Learning Participation - Change in Achievement

		Total		Less than 30		30 or more	
Yr.	Grd.	#	%	#	%	#	%
2008-2009	A	41	7.9	11	6.9	30	8.4
	B	124	23.9	38	23.9	86	24.0
	C	224	43.2	57	35.8	165	46.1
	D	95	18.3	34	21.4	61	17.0
	F	35	6.7	19	11.9	16	4.5
2007-2008	A	36	6.9	10	6.3	26	7.3
	B	108	20.8	23	14.5	85	23.7
	C	210	40.5	70	44.0	139	38.8
	D	127	24.5	42	26.4	84	23.5
	F	38	7.3	14	8.8	24	6.7

Rocket Learning participants have greater gains than a comparable group of non-participants from the same schools.

- Students in Rocket Learning demonstrated significantly higher gains than non-participating comparable students from the same schools. Using the SDRT's pre- and post-test given to Chicago Public School students in the Rocket Learning program and in a control group, students in Rocket Learning showed on average a 15.43 percentage point increase between

their pre- and post-tests while students in the control group showed on average a 2.12 percentage point increase. This more accurately indicates that Rocket Learning produces larger achievement gains compared to students not participating in the program. (Table 3)

Table 3: Descriptive statistics on the differences in percentage of correct responses between the pre- and post-test in three Rocket Learning regions

	California	Chicago	Chicago Control Group	Northeast	All Rocket Learning
Number of participants	2609	534	131	246	3389
Mean difference in percentage of correct responses between the pre- and post-test	6.20	15.43	2.12	8.28	7.81
Median difference in percentage of correct responses between the pre-and post-test	4.95	12.50	2.22	7.48	6.06
Std. Deviation	9.69	12.52	11.97	8.84	10.67
25th Percentile	0.00	06.67	-2.50	2.97	1.01
50th Percentile	5.00	12.50	2.22	7.48	6.06
75th Percentile	10.33	20.00	8.89	12.10	12.12

Although Rocket Learning students demonstrated gains on state tests, other more targeted instruments more accurately reflect the academic improvement of Rocket Learning's targeted tutoring approach.

- A slightly higher proportion of Rocket Learning participants improved their ISAT test scores between 2008 and 2009 than non-participants. Among participants, the proportion of individuals scoring below proficiency decreased by five percentage points, but only three percentage points among non-participants. Non-participants had average growth levels that were less than the expected level of 10 - 9.24 - while participants had slightly higher than expected growth levels - 10.09. (Table 4)

Table 4: Comparison of Change in ISAT Readings Scale Score between 2007-2008 and 2008-2009 among Rocket Learning Participants and SES Eligible Non-Participants Enrolled in the Same Schools in 2008-2009

	Rocket Learning		Non-Rocket Learning	
Change	**Mean**	**Std. Dev**	**Mean**	**Std. Dev**
2008-2007 (z-score)	0.04	1.03	-0.01	1.00
2009-2008 (z-score)	0.05	1.02	-0.01	1.00

2008-2007	14.40	16.17	13.59	15.64
2009-2008	10.09	15.41	9.24	15.09

- While the ISAT gains are positive, it is important to note that the gains on SDRT's pre- and post-tests covered in the previous finding are more accurate measures of the academic achievement derived from tutoring. This is because these tests are more targeted on the skills focused on in the tutoring, whereas the ISAT covers everything a child should have learned. State tests are not satisfactory tools to measure the impact of targeted interventions such as Rocket Learning, so the gains are not expected to be significant.

Rocket Learning tutors very needy students.

- Participants in after-school programs like Rocket Learning are among the higher need students because these programs provide services to students in the lowest-achieving, high-poverty schools. Within this already high-need group, Rocket Learning serves a relatively high proportion of students that receive special education services (16 percent compared to 11 percent). (Table 5)

Table 5: Characteristics and Achievement Levels for Rocket Learning Students

	% Black and Latino		% Special Ed.		% Prof.+ Reading	
	RL Students	Total School	RL Students	Total School	RL Students	Total School
Total	99.7	99.5	16.0	11.3	51.0	47.0

Contact Information

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