

# Longitudinal Impact of Virginia Public Libraries' Summer Reading Program on Student Reading Outcomes

**Library of Virginia Year 3 Report**



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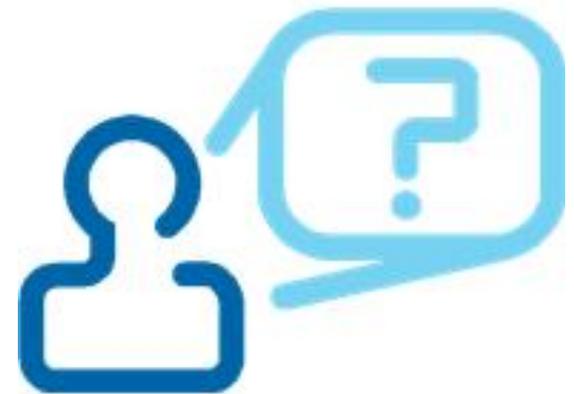


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# Housekeeping



# Polling Question

# Background

- **Summer reading loss is real.**
  - Cooper, Nye, Charlton, Lindsay, & Greathouse (1996)
  - McGill-Franzen & Allington (2004)
- **Literature suggests that summer reading programs may be an alternative solution to prevent summer reading loss.**
  - Celano & Neuman (2001)
  - Matthews (2010)
  - Good, Ho, Muñoz-Miller, Ncube, & Turner (2015)  
*(Report available at <http://readvirginia.com/>)*

# Purpose of the Study

Commissioned by the Library of Virginia and funded by the Institute of Museum and Library Services with the cooperation and collaboration of the Virginia Department of Education to investigate:

Does the summer reading program have long-lasting effects on children's and teens' reading outcomes?



# Research Questions

**What is the long-term impact of participation in the summer reading program on children's and teens' reading outcomes?**

- a. Does the summer reading program's impact on reading outcomes endure more than one year following participation?
- b. How many children participate in the summer reading program for more than one year, and what are the characteristics of these repeat participants?
- c. How do the reading outcomes and growth patterns of repeat participants differ from nonparticipants and from those participating during a single summer?

# Research Design

- The 2014 study involved a quasi-experimental design using propensity score matching methods to identify a group of matched comparisons (Stuart & Rubin, 2007).
  - For the longitudinal study, a subset of participants in the 2014 study who were entering the 4th, 5th, and 6th grades following participation in the 2013 Summer Reading Program were included.
  - The matched comparisons of the selected participants were included as the comparison group.

# Research Design

- Participants and comparisons were tracked if they also participated in the 2014 Summer Reading Program.

Group Membership		2014 SRP Participation Status	
		No	Yes
2013 SRP Participation	Yes (Participants)	Group 1 – PI (2013 SRP Participants)	Group 3 – PI+ (2013 SRP Repeat Participants)
	No (Comparisons)	Group 2 – CI (2013 Comparisons)	Group 4 – CI+ (2013 Post-hoc Participants)

Note. SRP = Summer Reading Program



# Data Sources

- Evanced™ Summer Reader database
  - 2013 Summer Reading Program participation data
  - 2014 Summer Reading Program participation data
- Virginia Department of Education (VDOE)
  - Demographic data
  - Achievement data
    - 2012-2013 English/Reading Standards of Learning (SOL) (Baseline)
    - 2013-2014 SOL (T1)
    - 2014-2015 SOL (T2)

# Longitudinal Study Sample

- 2,115 participants  
(46% of the 2014 participant sample) and
- 2,084 comparisons  
(45% of the 2014 comparison sample)
- Participants and comparisons who were entering the 4th, 5th, and 6th grades following the 2013 Summer Reading Program

# Study Sample Characteristics

Demographic Variables	2,115 Participants	2,084 Comparisons
Male (%)	38.3%	38.6%
Minority (%)	31.3%	34.4%
Fourth Graders (%)	56.4%	46.2%
Fifth Graders (%)	14.5%	33.0%
Sixth Graders (%)	29.2%	20.8%
Disadvantaged Status (%)	25.2%	23.9%
Limited English Proficiency (%) <sup>a</sup>	2.8%	3.1%
2013 SOL English/Reading Scale Score <sup>**</sup>	467.36 (63.39)	468.82 (65.94)

Note. SOL = Standards of Learning

<sup>a</sup> Limited English proficiency data were only available for children from kindergarten to third grade; hence, the percentages shown in the table indicate the percentage of fourth graders who were third graders with limited English proficiency before the 2013 Summer Reading Program.

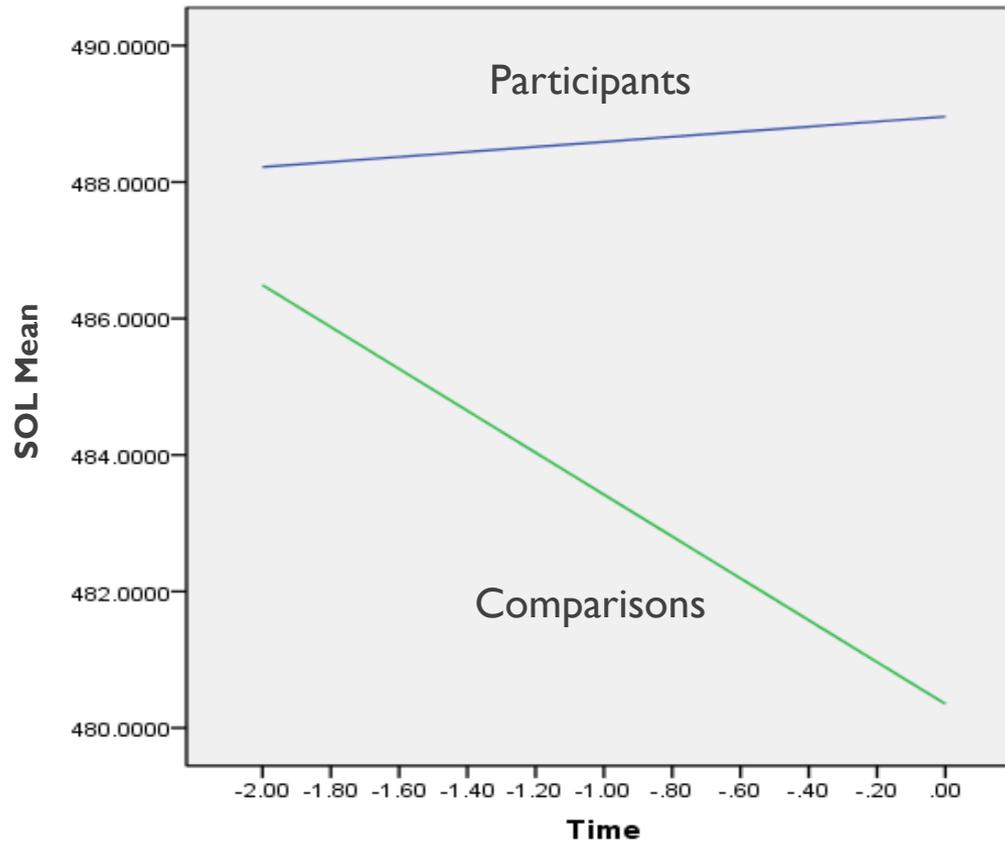
<sup>\*\*</sup> Independent sample *t*-tests indicated that the means of the 2013 SOL data were not statistically significant.

# Research Data and Its Meaning

- Mixed linear modeling
- Statistical significance –  $p$  value

# Findings

- a. Does the summer reading program's impact on reading outcomes endure more than one year following participation?



# Findings

## b. How many children participate in the summer reading program for more than one year, and what are the characteristics of these repeat participants?

- 35% of the participants and 5% of the comparisons (i.e., 4th, 5th, and 6th graders) participated in the 2014 Summer Reading Program

Group Membership		2014 SRP Status	
		No	Yes
2013 SRP Participation	Yes (Participants)	PI = 2,115 students (2013 SRP Participants)	PI+ = 740 students (2013 SRP Repeat Participants)
	No (Comparisons)	CI = 2,084 students (2013 Comparisons)	CI+ = 102 students (2013 Post-hoc Participants)

Note. SRP = Summer Reading Program.

# Findings

## b. How many children participate in the summer reading program for more than one year, and what are the characteristics of these repeat participants?

Characteristics	PI (1,375)	PI+ (740)	CI (1,982)	CI+ (102)
Number of Library Systems Involved	37	25	46	17
Fourth Grade (%)	57.2%	54.7%	45.5%	58.8%
Fifth Grade (%)	14.6%	14.2%	33.1%	31.4%
Sixth Grade (%)	28.1%	31.1%	21.4%	9.8%
Male (%)	39.7%	35.5%	39.1%	29.4%
White (%)	67.1%	71.9%	65.3%	70.6%
Black (%)	18.3%	13.9%	20.1%	11.8%
Hispanic (%)	4.9%	4.6%	7.2%	6.9%
Asian (%)	3.9%	5.3%	2.7%	3.9%
Other race (%)	5.8%	4.3%	4.6%	6.9%
Disadvantaged Status (%)	28.3%	19.6%	24.5%	12.7%

Note. PI = 2013 Summer Reading Program participants; PI+ = 2013 Summer Reading Program participants who also participated in the 2014 Summer Reading Program; CI = 2013 comparisons; and CI+ = 2013 comparisons who participated in the 2014 Summer Reading Program.

# Findings

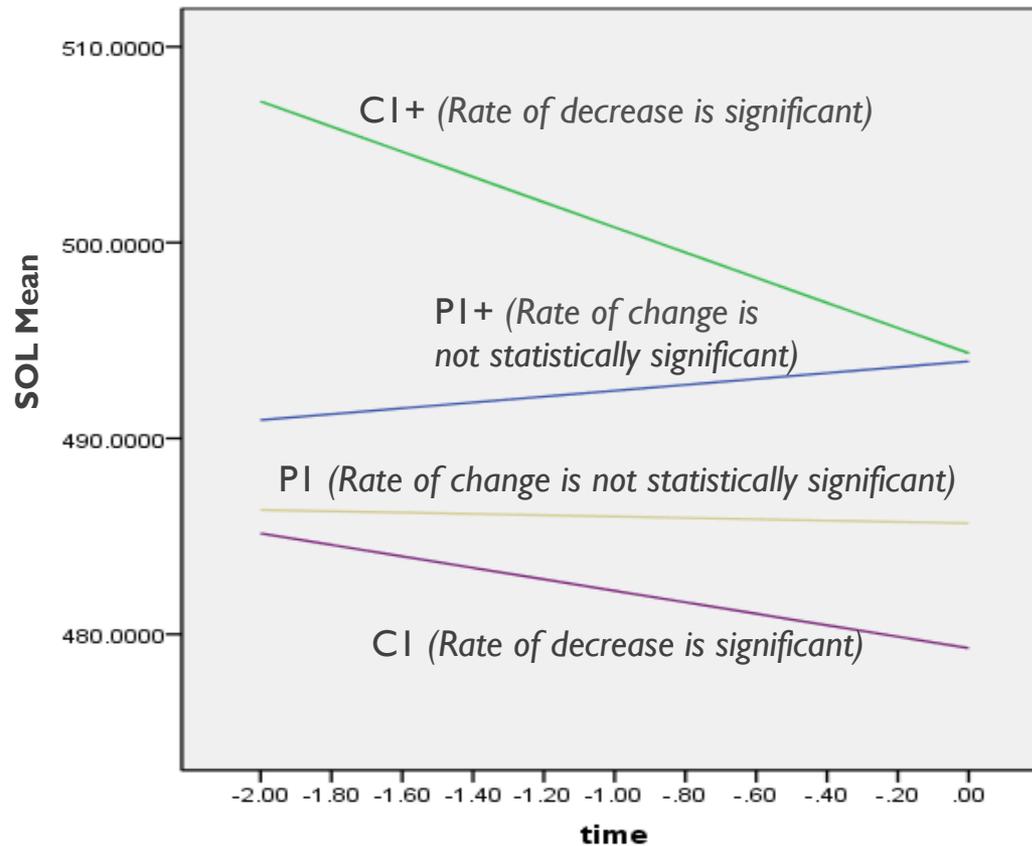
## b. How many children participate in the summer reading program for more than one year, and what are the characteristics of these repeat participants?

Characteristics	PI (1,375)	PI+ (740)	CI (1,982)	CI+ (102)	t-test results (All results with $p < 0.001$ )
Reading/English SOL at Baseline (M/SD)	464.02 (62.66)	473.55 (64.30)	467.31 (65.72)	498.14 (63.68)	CI+ > PI+ > PI, CI
Reading/English SOL at T1 (M/SD)	470.23 (60.86)	479.43 (63.05)	459.82 (61.28)	479.95 (54.52)	PI+ > PI, CI PI, CI+ > CI
Reading/English SOL at T2 (M/SD)	464.27 (58.56)	477.60 (61.93)	461.79 (60.61)	485.97 (57.78)	PI+, CI+ > PI, CI

Note. PI = 2013 Summer Reading Program participants; PI+ = 2013 Summer Reading Program participants who also participated in the 2014 Summer Reading Program; CI = 2013 comparisons; and CI+ = 2013 comparisons who participated in the 2014 Summer Reading Program.

# Findings

c. How do the reading outcomes and growth patterns of repeat participants differ from nonparticipants and from those participating during a single summer?



# Limitations

- The study sample only included students who were entering the 4th, 5th, and 6th grades following their participation in the 2013 Summer Reading Program.
- Selected comparisons were only similar to participants in key demographic and achievement variables before program participation.
- Participation criterion is broad.

# Summary

- Participation in summer reading programs may have a positive effect on student achievement outcomes by preventing learning loss even two years after participation.
- Thirty-five percent (35%) of the 2013 Summer Reading Program participants and 5% of the comparisons also participated in the 2014 Summer Reading Program.
- Repeat participants benefited the most from their participation in the 2013 and 2014 Summer Reading Programs, followed by those who only participated in the 2013 program.

# Questions & Answers

- Reminders
- Questions from the chat box



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