

Impact of Virginia Public Libraries' Summer Reading Program

Library of Virginia Year 2 Report



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Polling Question

Background

- **Summer reading loss is real.**
 - Cooper, Nye, Charlton, Lindsay & Greathouse (1996)
 - McGill-Franzen & Allington (2004)
- **Children from disadvantaged backgrounds are at a greater risk.**
 - Matthews (2010)
 - McGill-Franzen & Allington (2004)
 - Mraz & Rasinski (2007)



Can summer reading programs be a solution?

Library of Virginia's Summer Reading Program



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

- Examine the program effect on children's reading outcomes
- Understand whether the program is more effective for certain groups (i.e., children from disadvantaged backgrounds or minority groups)



Research Questions

- I. What effect does the summer reading program have on participants' reading outcomes?
 - a. What was the change in reading outcomes from before participation in the 2013 Summer Reading Program to after participation for children and teens?
 - b. What is the effect of the summer reading program on participants' reading outcomes as compared to their nonparticipating peers?
 - c. To what extent does participation in the program moderate participants' reading trajectory (gain versus loss) in comparison to their nonparticipating peers?

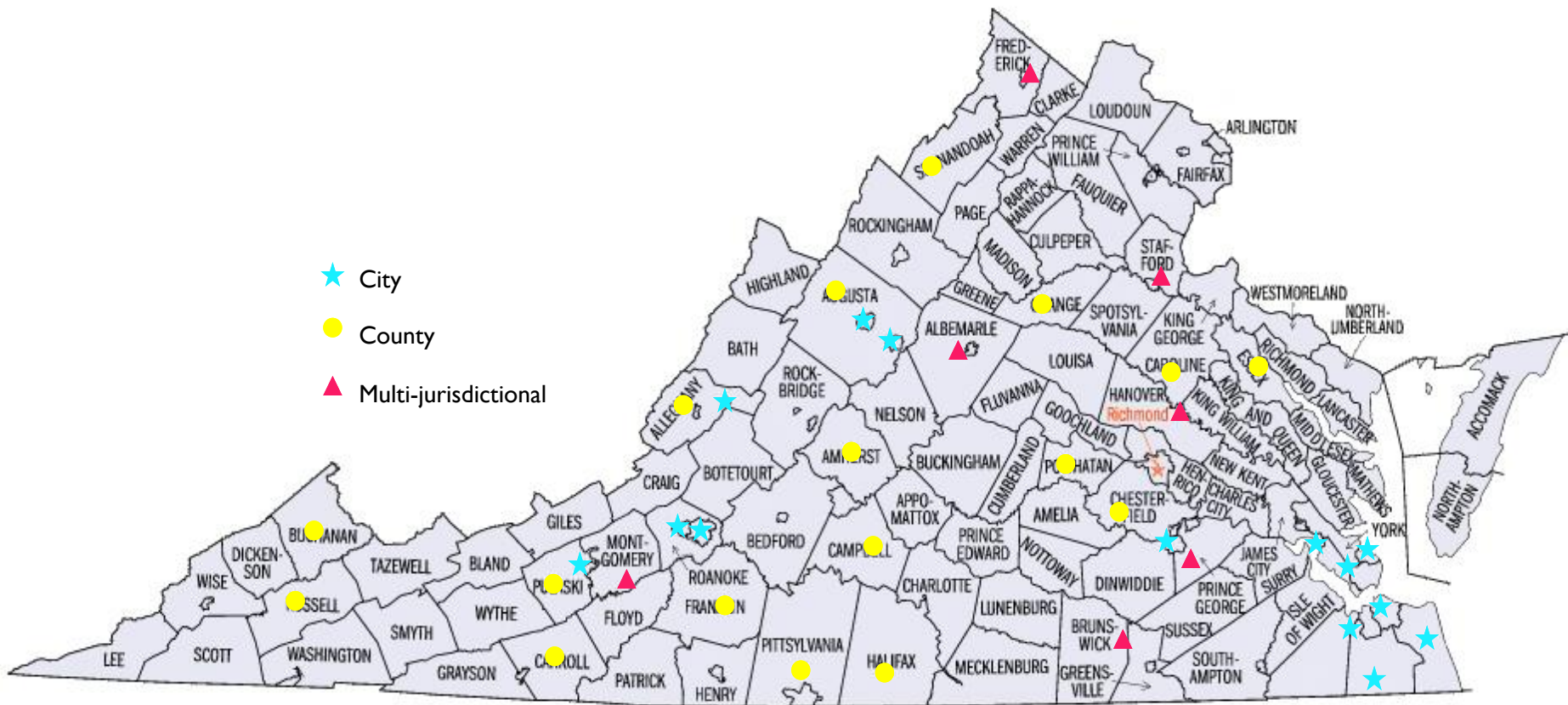
Research Questions

2. Does the effect of the summer reading program on reading outcomes differ for children and teens of different backgrounds?

Did the effect of the 2013 Summer Reading Program differ by ...

- a. grade?
- b. gender?
- c. disadvantaged status?
- d. children's minority status?
- e. children's limited English proficiency status?

Participating Public Library Systems



Base map retrieved from:
<http://www.nationalrealty.biz/map/virginia-counties.htm>

Research Design

- Quasi-experimental design using propensity score matching methods to identify a group of matched comparisons (Stuart & Rubin, 2007).
- Comparisons are similar to participants on
 - Demographic characteristics (i.e., grade level, gender, minority status, disadvantaged status, and limited English proficiency status)
 - Achievement level before program participation

Data Sources

- Evanced™ Summer Reader database
 - Participation data
- Virginia Department of Education (VDOE)
 - Demographic and achievement data (i.e., 2013 pretest and 2014 posttest)
 - Phonological Awareness Literacy Screening (PALS) for children from kindergarten to 2nd grade
 - Overall scale score
 - English/Reading Standards of Learning (SOL) for children and teens from 3rd to 12th grade
 - Overall English/Reading scale score
 - Comprehension of Fiction subscale score
 - Comprehension of Nonfiction subscale score
 - Word Analysis subscale score

Study Sample

- 4,598 out of 14,575 (31.5%) 2013 Summer Reading Program participants who were in kindergarten through 12th grade were included in the study.
- Propensity score matching was conducted to identify a group of 4,598 matched comparisons from the VDOE database.

Study Sample Characteristics

Demographic Variables	Participants (<i>n</i> = 4,598)	Comparisons (<i>n</i> = 4,598)
Male (%)	39.7%	39.9%
Minority (%)	31.1%	35.6%
K – 2 nd Graders (%)	11.4%	11.3%
3 rd – 12 th Graders (%)	88.6%	88.7%
Disadvantaged Status (%)	25.2%	26.0%
Limited English Proficiency (%) ^a	0.3%	0.3%
2013 PALS Entry Level Sum Score**	68.19 (18.62)	67.94 (19.48)
2013 SOL English/Reading Scale Score**	467.08 (62.56)	466.23 (64.25)

^a Limited English proficiency data were only available for children from kindergarten to third grade.

** Independent sample *t*-tests indicated that the means of 2013 PALS and SOL data were not statistically significant.

Data Analysis and Interpretation

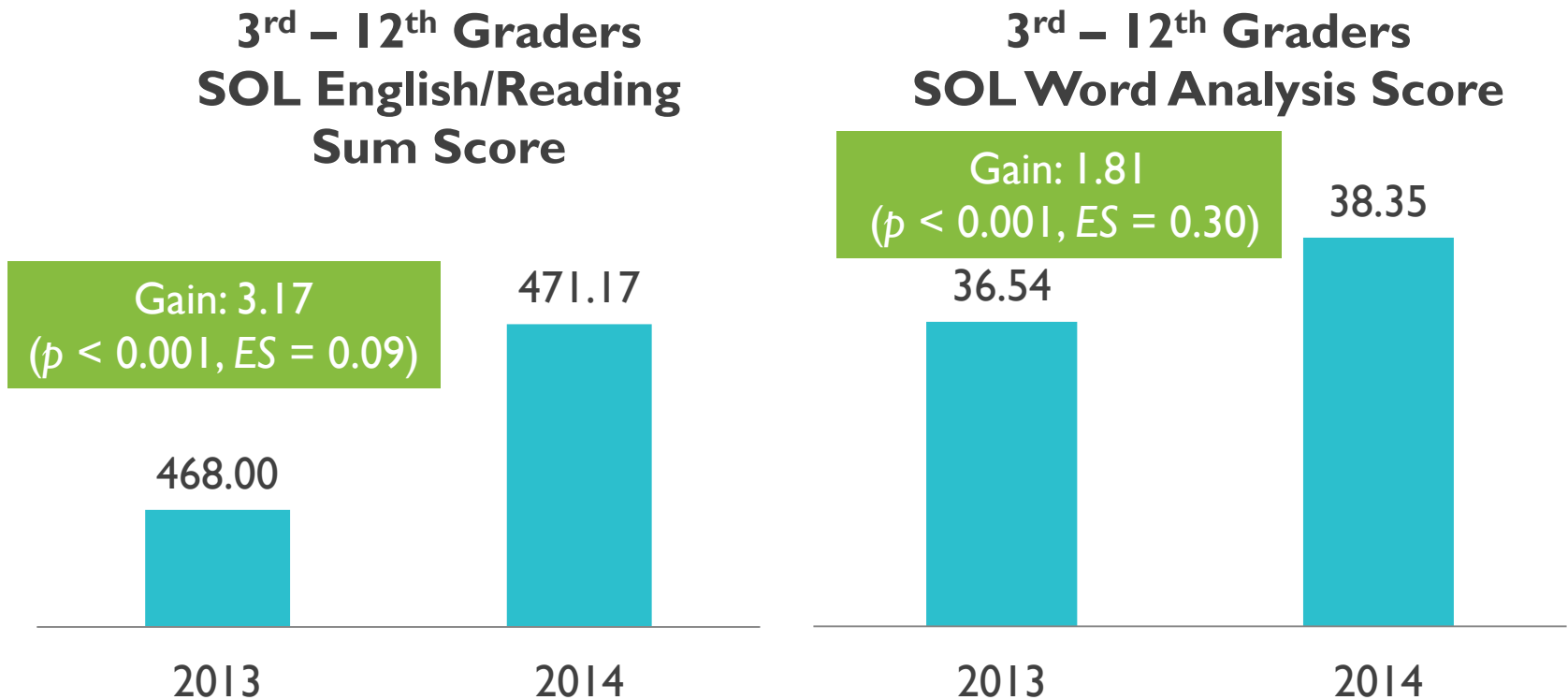
- Independent samples *t*-tests (Q1a)
- Two-level hierarchical linear modeling (Q1b, Q1c, & Q2a-Q2e)
- Statistical significance – *p* value
- Practical significance – Effect Size (ES)
 - .25 or greater is “educationally meaningful”
 - .13-.20 is “substantively important”

Note. All analyses were conducted on complete cases, meaning that any individual with missing data on any of the variables included in the analysis model were removed.

Findings

Q1. What effect does the summer reading program have on participants' reading outcomes?

- a. What was the change in reading outcomes from before participation in the 2013 Summer Reading Program to after participation for children and teens?

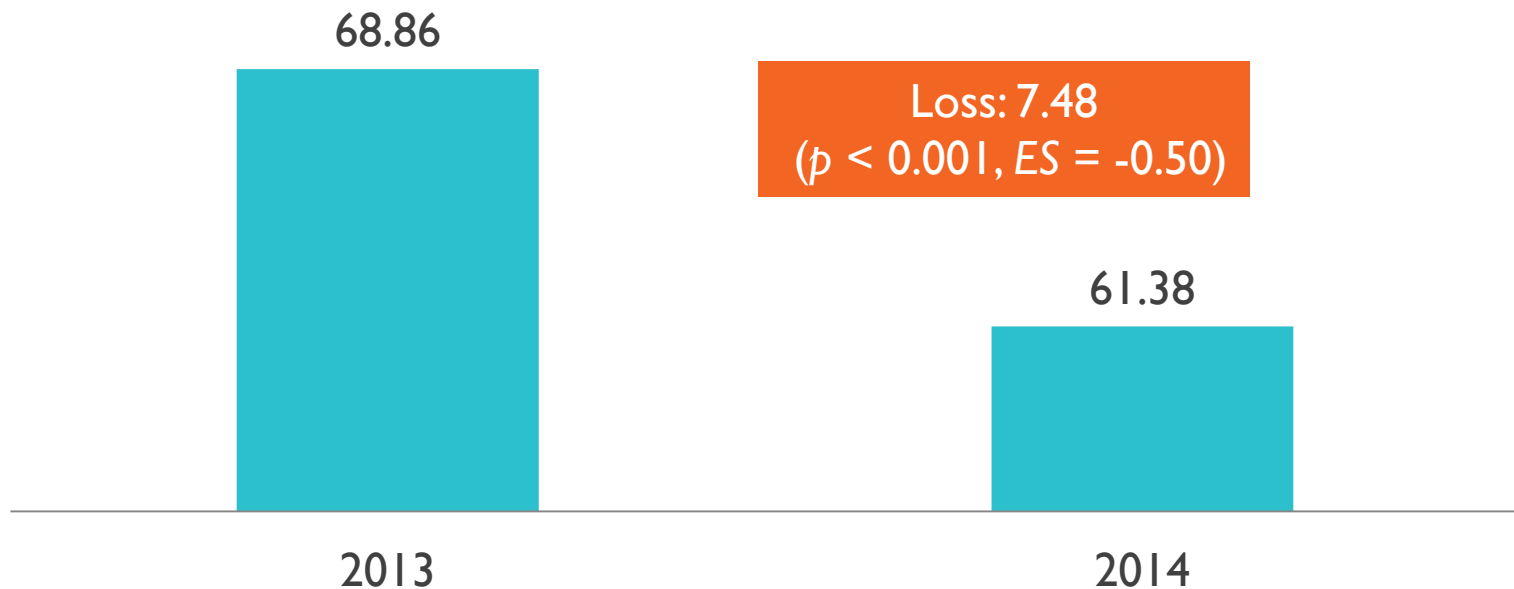


Findings

Q1. What effect does the summer reading program have on participants' reading outcomes?

- a. What was the change in reading outcomes from before participation in the 2013 Summer Reading Program to after participation for children and teens?

K-2nd Graders PALS Sum Score

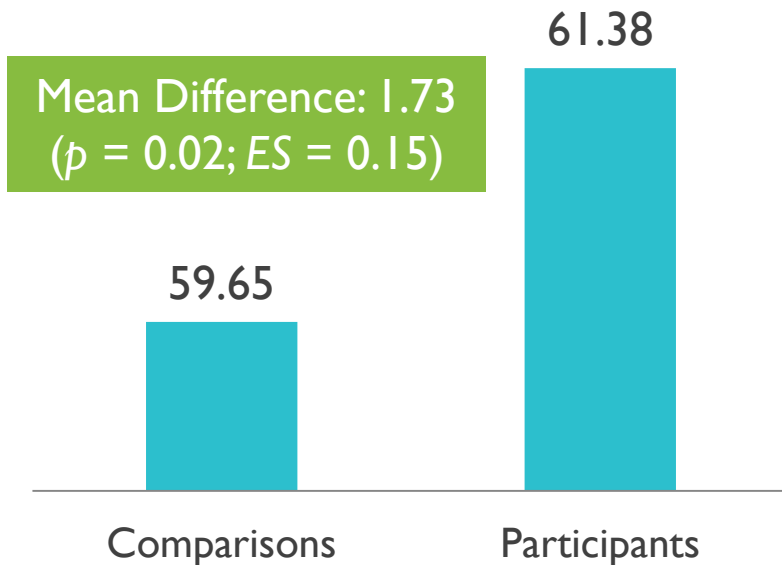


Findings

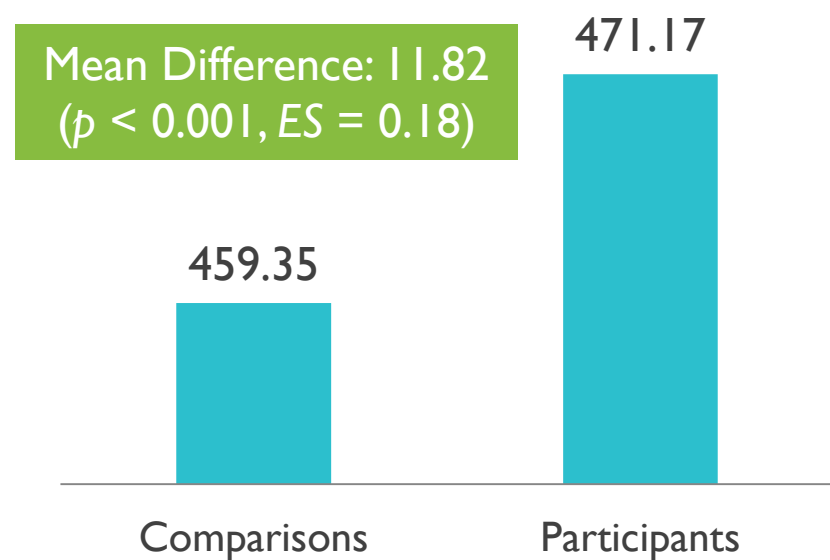
Q1. What effect does the summer reading program have on participants' reading outcomes?

- b. What is the effect of the summer reading program on participants' reading outcomes as compared to their nonparticipating peers?

K – 2nd Graders PALS Sum Score



3rd – 12th Graders SOL English/Reading Sum Score

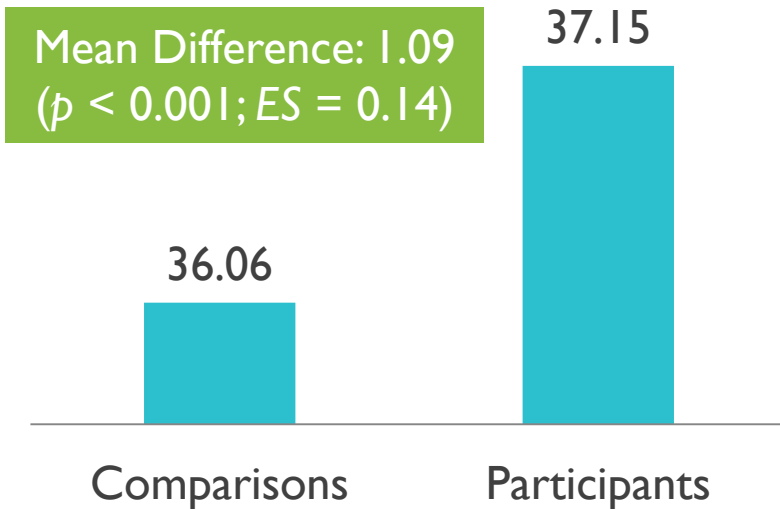


Findings

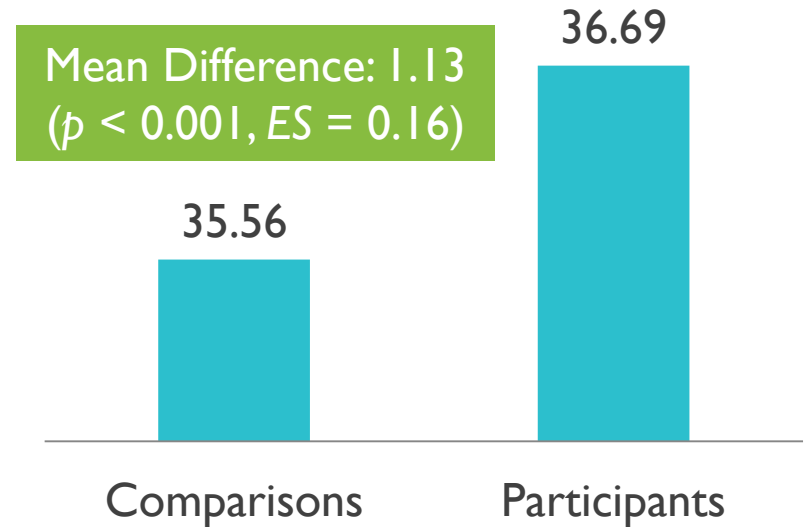
Q1. What effect does the summer reading program have on participants' reading outcomes?

- b. What is the effect of the summer reading program on participants' reading outcomes as compared to their nonparticipating peers?

3rd – 12th Graders SOL Comprehension of Fiction Score



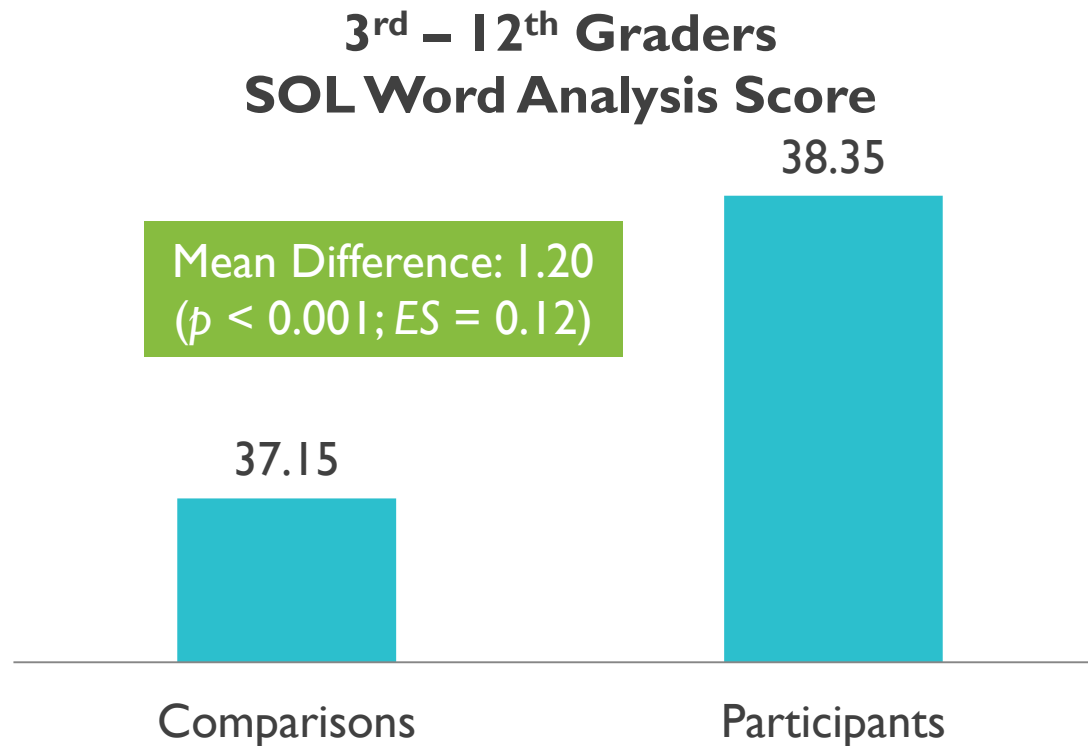
3rd – 12th Graders SOL Comprehension of Nonfiction Score



Findings

Q1. What effect does the summer reading program have on participants' reading outcomes?

- b. What is the effect of the summer reading program on participants' reading outcomes as compared to their nonparticipating peers?

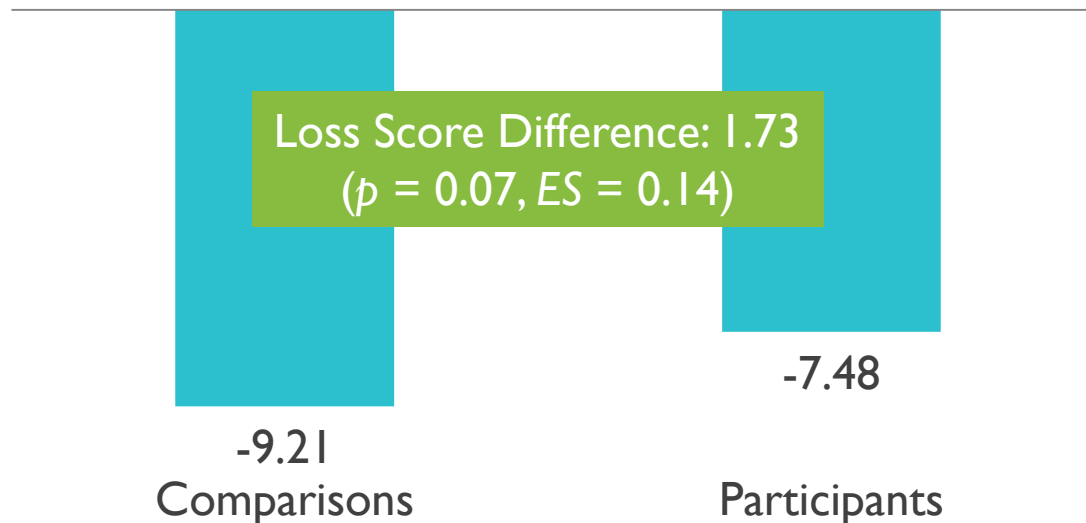


Findings

Q1. What effect does the summer reading program have on participants' reading outcomes?

- c. To what extent does participation in the program moderate participants' reading trajectory (gain versus loss) in comparison to their nonparticipating peers?

K – 2nd Graders PALS Sum Gain/Loss Score

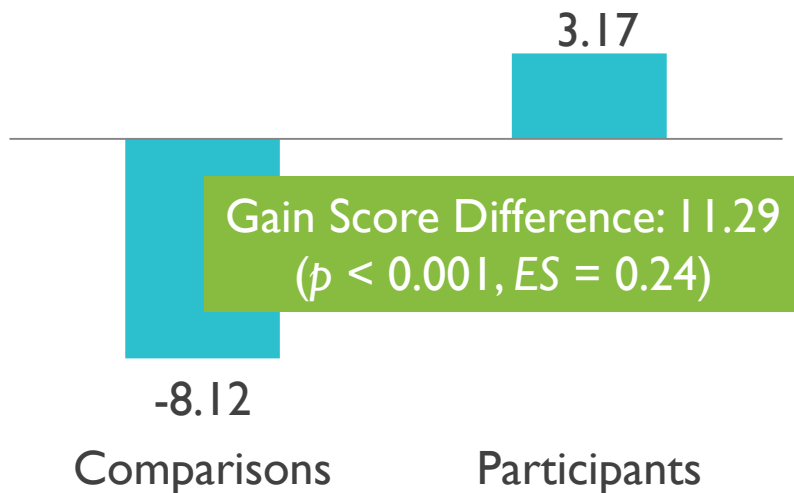


Findings

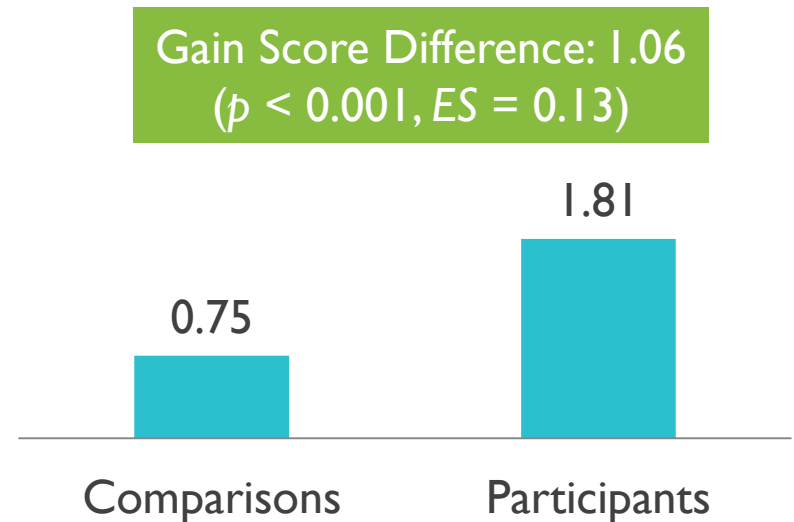
Q1. What effect does the summer reading program have on participants' reading outcomes?

- c. To what extent does participation in the program moderate participants' reading trajectory (gain versus loss) in comparison to their nonparticipating peers?

3rd – 12th Graders SOL English/Reading Sum Gain Score



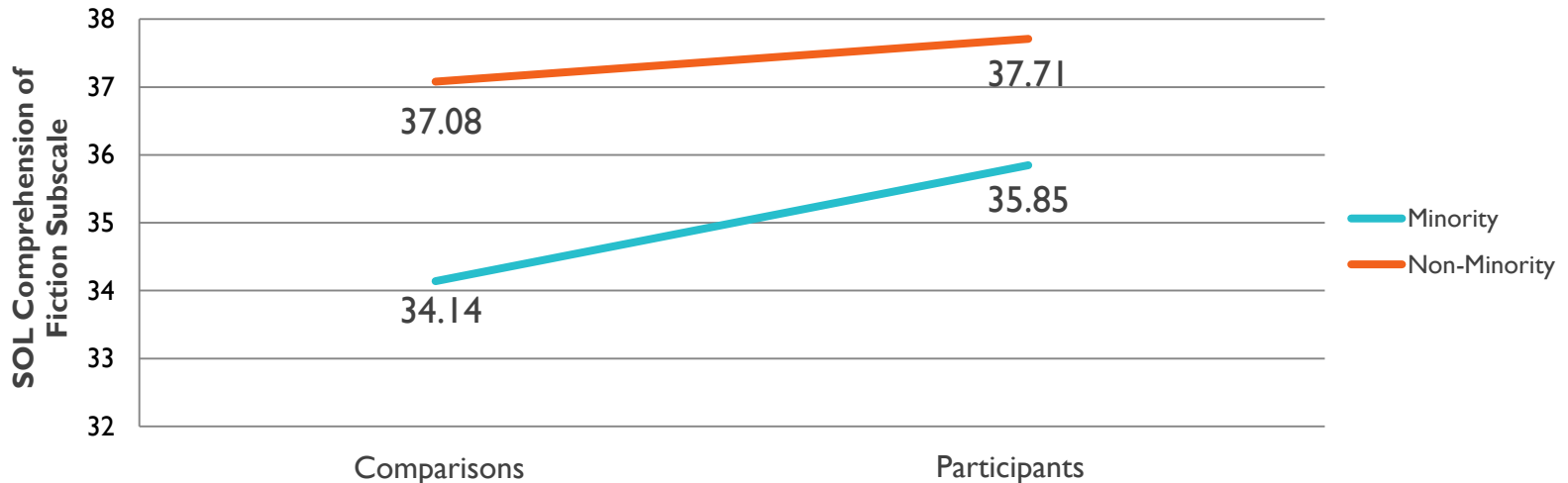
3rd – 12th Graders SOL Word Analysis Gain Score



Findings

Q2. Does the effect of the summer reading program on reading outcomes differ for children and teens of different backgrounds?

- For K – 2nd graders, the effect of the 2013 Summer Reading Program did not differ by demographic backgrounds (i.e., grade, gender, limited English proficiency status, or minority status).
- For 3rd – 12th graders, the effect of the 2013 Summer Reading Program did not differ by grade, gender, or disadvantaged status. However, the effect did differ on the SOL Comprehension of Fiction subscale score by children's/teens' minority status.



Q1 Summary

	Participants Demonstrated Better Outcomes than Comparisons	Participants Demonstrated Greater Gains or Smaller Losses than Comparisons
PALS Entry Level Sum Score	X	
SOL Eng/Reading Sum Score	X	X
SOL Comprehension of Fiction Subscale Score	X	N/A
SOL Comprehension of Nonfiction Subscale Score	X	N/A
SOL Word Analysis Subscale	X	X

Note. PALS = Phonological Awareness Literacy Screening; SOL = Standards of Learning; N/A denotes that gain scores were unable to be calculated as there was not a pretest with an exact match collected for the subscale.

Q2 Summary

- For K – 2nd graders, the program effect did not differ by children’s demographic characteristics, including grade level, gender, limited English proficiency status, and minority status.
- For 3rd – 12th graders, the program effect did not differ by children’s/teens’ grade level, gender, and disadvantaged status. However, the effect was stronger for children/teens from a minority background.

Conclusion

- Children and teens who attended the summer reading programs offered by Virginia's library systems performed better academically and experienced greater gains in their academic performance than their nonparticipating peers.
- Summer reading programs may serve as an alternative avenue to close achievement gaps between minority groups and their White counterparts.

Questions & Answers

- Reminders
- Questions from chat box



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