Summer Success: Three Years of Program Evaluation

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Abstract

- This project evaluated three waves of an early-literacy program in Austin, TX. The program aimed to combat the "summer reading slide" by providing books to students to read during the break from school. For all three waves, reading scores were higher for students at intervention schools compared to those at comparison schools.

Background

- The "Summer Slide": During their summer break from school, children are at risk of losing some of their learning progress from the school year if they do not practice important skills (such as reading).[1]
- This risk especially high for children from lower SES families, in part because they lack access to resources with which to practice these skills.[2]
- In the U.S., students who are English Learners are overrepresented among students who read at below basic levels.[3]
- Research links the amount of reading materials at home to higher reading proficiency scores for children.[4]

Methods

Cohort 1 (2017 summer break)

- 412 second-grade students (196 = intervention)
- Completed reading assessments in the Spring of second-grade ("Baseline") and the Fall of third-grade ("Outcome")
- *English assessment scores only*

Cohort 2 (2018 summer break)

- 598 first-graders (296 = intervention) and 539 second-graders (264 = intervention)
- Completed reading assessments in the Spring of first/second grade and the Fall of second/third grade
- Over 80% qualified for free/reduced lunch
- Spanish or English assessment scores (whichever language's outcome score was better)

Cohort 3 (2019 summer break)

- 676 first-graders (358 = intervention) and 861 second-graders (452 = intervention)
- Over 75% qualified for free/reduced lunch.
- Spanish and English assessment scores at many timepoints throughout the semester before and after summer break

Results: Cohort 1

Group differences in outcome reading scores (ANCOVA)

- After controlling for baseline reading levels, there was a significant effect of group (intervention versus comparison) on outcome reading score, $F(1, 398) = 6.25$, $p = .013$.

Results: Cohort 2

Group differences in outcome reading scores (ANCOVA)

- After controlling for baseline reading levels, there was a significant effect of group (intervention versus comparison) on outcome reading score, $F(1,1132) = 5.69$, $p = .017$.

Results: Cohort 3

Group differences in outcome reading scores (ANCOVA)

- After controlling for baseline reading levels and test language, there was a significant effect of group (intervention versus comparison) on outcome reading score, $F(1,18079) = 5.55$, $p = .019$.

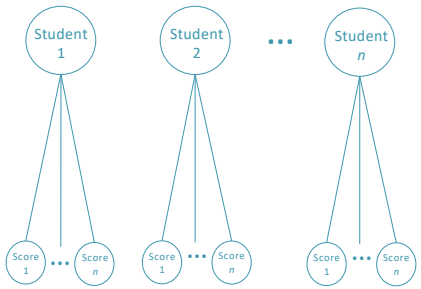
Group differences in reading scores (RANCOVA)

- Random effects analysis of covariance: scores grouped by student (see figure, below).

Predictors of Reading Score

	Estimate	Std. Error	df	*t*	*p**
Group *(Intervention or Comparison school)*	801.189151	4.388978	1581.869	182.546	< .001
Time *(before or after summer break)*	34.882833	2.661080	1546.788	13.109	< .001
Language *(Spanish or English version of test)*	-26.400568	5.965888	1599.613	-4.425	< .001
Group * Time	13.034777	1.456265	16908.716	8.951	< .001
Grade * Group	-646.055414	.759917	18179.232	-850.166	< .001
Grade * Group * Time	18.464480	4.472034	16831.986	4.129	< .001

** Significant t-tests indicate that the parameter estimate is significantly different from 0*



Variables that differ between *individual students*
- Student ID ("clustering" variable)
- Grade Level (predictor)
- Experimental Group (predictor)

Variables that differ between *individual assessments*
- Score (dependent variable)
- Test Language (predictor)
- Semester (predictor)

Discussion

- Children in schools that adopted our book distribution program had increased reading scores on standardized tests.
- These findings held true across three cohorts of the program.
- These findings suggest that book distribution programs may be a more cost-effective way of supporting children across the summer months than expensive camps with extensive staff, time, and transportation requirements.

References

1. Alexander, K., Pitcock, S., & Boulay, M. C. (Eds.) (2016). *The summer slide: What we know and can do about summer learning loss.* Teachers College Press.
2. Read for Success: Combatting the Summer Learning Slide in America. (2015). In (pp. 1-12): Reading is Fundamental.
3. Hemphill, F. C., & Vanneman, A. (2011). Achievement Gaps: How Hispanic and White Students in Public Schools Perform in Mathematics and Reading on the National Assessment of Educational Progress.
4. Barton, P. E., & Coley, R. J. (2007). The Family: America's Smallest School. Policy Information Report. *Educational Testing Service*.

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