Annual Book Fairs for Disadvantaged Elementary School Students

Book fairs providing summer reading to elementary school students were found in a large, well-conducted randomized controlled trial to improve students’ reading achievement, as measured on the state test, by approximately 35-40% of a grade level three years after random assignment.

I. Description of the Intervention:

Book fairs at high-poverty elementary schools gave students books to read over the summer, for three consecutive summers starting at the end of their 1st or 2nd grade school year. The goal was to prevent their reading skills from deteriorating while on vacation. In the spring of the three school years, students attended the fairs, which provided books from a variety of genres (e.g., pop culture, social studies, science). At each fair, students could pick 12 books to keep.

Although the study described below does not provide the exact cost of the intervention, the report indicates it was inexpensive – the main cost being that of supplying the students with 12 free books per year.

II. Evidence of Effectiveness:

A. Evaluation Method: A multi-site randomized controlled trial of book fairs, with follow-up three years after random assignment.

This was a randomized controlled trial of 1,713 socioeconomically disadvantaged 1st and 2nd graders, at 17 high-poverty elementary schools in two large school districts in Florida. Students were randomly assigned to either a group that attended the book fairs or a control group that did not.

89% of the sample was either African American or Hispanic, and more than 65% were eligible for free or reduced price lunch.

B. Effects of book fairs, three years after random assignment:

These are the effects on all of the academic outcomes the study measured at the three-year follow-up (i.e., when most students were in 4th or 5th grade, versus the control group). All effects shown are statistically significant at the 0.05 level.

On average, students in the book fair group:

- Scored higher than control group students by 0.14 standard deviations on the Florida state reading assessment, which likely equates to about 35-40% of a grade level¹.

¹ Specifically, the average annual gain in reading achievement for U.S. students during fourth and fifth grades on seven nationally normed tests is 0.36 and 0.40 standard deviations respectively (see Bloom, Hill, Black, and Lipsey, Performance Trajectories and Performance Gaps as Achievement Effect-Size Benchmarks for Educational Interventions, October 2008). The difference in achievement between book fair and control group students, shown above, is 35-40% of these annual gains.
• Reported reading more often during their summer breaks (the effect size was not reported).

C. Discussion of Study Quality:

• The study had low-to-moderate attrition and a reasonably long-term follow-up: Outcome data were collected for 79% of the book fair group and 76% of the control group at the three-year follow-up.

• The study appropriately obtained parental consent (for their children to participate in the study) prior to random assignment.

• In the follow-up sample, there were no significant differences between the book fair and control groups in students’ demographic characteristics -- such as gender, free lunch status, race/ethnicity, age -- and pre-program reading levels.

• The study measured outcomes using the official state mandated reading assessment -- the Florida Comprehensive Achievement Test (FCAT) -- which is administered annually to all students in grades 3 through 8, and primarily tests their word and passage comprehension.

• Study limitation: A modest study weakness is that book fair students were dropped from the study sample at the three-year follow-up if they were no longer enrolled at one of the 17 schools conducting the book fairs (on the rationale that they probably did not receive the full intervention). By contrast, control group students were dropped only if they moved out of the school district entirely. This problem – an “intention-to-treat” violation – has the potential to undermine the equivalence of the intervention and control groups. However, in this case, it appears to be at most a limited problem since students in the book fair group who left their school often transferred to one of the other 17 schools providing the book fairs, and so were included in the final sample. As a result, the book fair and control groups had similar rates of sample retention at the three-year follow-up (79% and 76% respectively) and remained highly similar in pre-program characteristics, as noted above.

D. Thoughts on what more is needed to build strong evidence: A second well-conducted randomized controlled trial, carried out in another setting (e.g., outside Florida), to show that the effects generalize to other settings where the program might normally be implemented.

III. References