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## PURPOSE

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This randomized control trial evaluated the impact of Jumpstart, a supplementary early educational intervention aimed at strengthening the impact of Head Start and other preschool programs, on early literacy, school readiness, and teacher-rated socio-emotional skills of preschool children.

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## SAMPLE AND RESEARCH DESIGN

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70 ethnically diverse 4-year-olds, residing in a Midwestern city of 120,000, comprised the sample. From three preschool centers serving low-income families, 31 children were randomly selected at the beginning of the school year to receive Jumpstart. Each was matched with a randomly selected comparison child on gender and age (within 3.5 months) in the same classroom.

In addition to the 31 Jumpstart and 31 same-classroom comparison children, the investigation included a small attention-control group of 8 low-income 4-year-olds, randomly selected from a preschool classroom not served by Jumpstart, but equivalent in environmental quality (based on an observational measure) to the classrooms attended by the Jumpstart and same-classroom comparison children. The attention-control group was provided with a similar quantity of adult one-on-one year-long attention as the Jumpstart group, but without a focus on literacy, to shed light on whether mere adult attention might yield similar literacy, school readiness, and socio-emotional outcomes.

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## MEASURES

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Trained graduate students in school psychology, blind to the purposes of the study and to child group assignment, gathered all the data. The following measures were administered in the fall and again in the spring, after the conclusion of Jumpstart sessions, to the entire sample:

### **Early Literacy**

The Get It, Got It, Go Reading Assessment (GIGIG)

Consists of three preschool measures of early literacy: (1) picture naming, a measure of expressive language that asks children to name common objects in their natural environments; (2) alliteration, a measure of phonological awareness in which children are shown a series of pictures of common objects and, for each, must choose from among three other images the one that starts with the same letter or sound as the target object; and (3) rhyming, also tapping phonological awareness, in which children must identify from a set of pictures of objects the one that rhymes with a target image. Preschoolers' performance on GIGIG is positively associated with reading progress in elementary school.

The Test of Early Reading Ability (TERA-3)

Appropriate for ages 3 through 8, assesses mastery of the following early reading skills: (1) alphabet, which includes knowledge of the alphabet, counting syllables, and beginning and ending letter sounds; (2) print conventions, such as understanding of page orientation, punctuation, spelling, and

capitalization; and (3) meaning, which encompasses prose comprehension, sentence construction, and paraphrasing. TERA-3 performance also effectively predicts later reading achievement.

### School Readiness

The Bracken School Readiness Assessment (BSRA)

Developed for 2- to 7-year-olds, measures diverse foundational concepts essential for school success, including knowledge of colors, letters, sizes, shapes, and numbers and basic counting skills. BSRA scores are good predictors of teachers' school readiness ratings, as well as of referrals for special educational services in kindergarten.

### Socio-emotional Skills

The Devereux Early Childhood Assessment (DECA)

Assesses behavior in five broad areas. Teachers were asked to rate children on 27 items, which address the frequency with which each child displays initiative, self-control, attachment (positive bonds with significant adults), protective factors (strengths, such as patience, that contribute to resilience in the face of stress), and problem behaviors. The DECA successfully predicts other indicators of socio-emotional adjustment, including referral to a health professional for emotional or behavior problems or need for an individualized behavior management plan.

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## FINDINGS

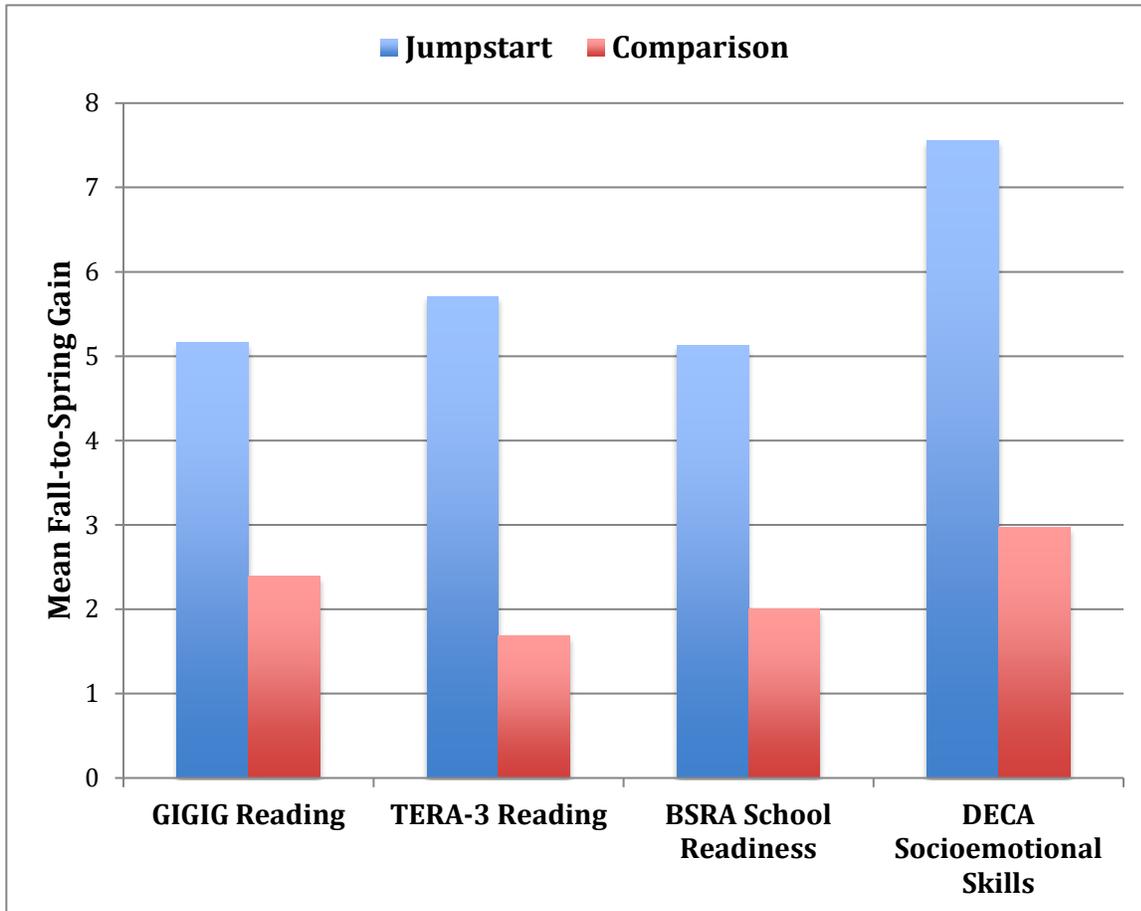
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1. No significant group differences emerged on any fall (pretest) measures, indicating that all three groups—Jumpstart, same-classroom comparison, and attention-control—were similar in performance at the start of the school year.

2. Jumpstart children showed greater fall-to-spring gains than same-classroom comparison children on all measures—early literacy, school readiness, and socio-emotional skills. These group differences, favoring Jumpstart, were statistically significant and substantial.

As Figure 1 shows, the Jumpstart group, relative to the same-classroom comparison group, displayed:

- (a) an average gain on GIGIG reading that was *more than twice as large*.
- (b) an average gain on TERA-3 reading that was *more than three times as large*.
- (c) an average gain on BSRA school readiness that was *more than two-and-one-half times as large*.
- (d) an average gain on DECA socio-emotional skills that was *more than two-and-one-half times as large*.



**Figure 1. Jumpstart group versus same-classroom comparison group fall-to-spring gains in reading, school readiness, and socio-emotional skills.**

Another way of understanding the size of Jumpstart vs. same-class comparison group gains is to tabulate the number of Jumpstart children displaying larger fall-to-spring gain scores than their matched comparison child:

- (a) on GIGIG reading, 65% of Jumpstart children showed larger gains.
- (b) on TERA-3 reading, 71% of Jumpstart children showed larger gains.
- (c) on BSRA school readiness, 68% of Jumpstart children showed larger gains.
- (d) on DECA socio-emotional skills, 71% of Jumpstart children showed larger gains.

Furthermore, Jumpstart end-of-year TERA-3 reading and BSRA school-readiness scores *reached expected levels for kindergarten entry*. In other words, Jumpstart children concluded their preschool year *at, or slightly above*, the average performance of U.S. entering kindergartners in general.

3. Jumpstart children also displayed substantially greater literacy and school-readiness gains than attention-control children. On average, the Jumpstart group showed, relative to attention-controls: (a) *more than twice* the end-of-year progress on GIGIG reading; (b) *nearly three times* the end-of-year progress

on TERA-3 reading; and (c) more than *two-and-one-half times* the end-of-year progress on BSRA school readiness.

However, the attention-control group was advantaged in gains on DECA socio-emotional skills, exceeding the Jumpstart children about 0.5 times. This finding suggests that sustained adult attention in preschool settings can be very effective in augmenting socio-emotional skills.

Nevertheless, recall that the Jumpstart group greatly exceeded the same-class comparison group in DECA socio-emotional skill gains (refer again to Figure 1), confirming that Jumpstart has an impressive impact on socio-emotional development.

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## CONCLUSION

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Results of this randomized control trial indicate that Jumpstart impressively augments the literacy, school readiness, and socio-emotional skills of low-income preschoolers, attaining its goal of equipping such children—as they reach the cusp of kindergarten entry—to succeed, both academically and socially.

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## CITATIONS

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Harris, S. & Berk, L. (2011, March). *Impact of individualized, supplementary preschool intervention on literacy, school readiness, and socio-emotional skills*. Poster presented at the biennial meeting of the Society for Research in Child Development, Montreal, Canada.

Harris, S. (2010). *Early Intervention for Poverty-Stricken Children: A Study of Preschoolers Receiving Jumpstart* (Unpublished doctoral dissertation). Illinois State University, Chicago, IL.