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Title:

Evaluation of the Raising a Reader and Family Nights programs with at-risk preschool children

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Abstract Body

Limit 5 pages single spaced.

Background/context:

Correlational research suggests that when adults engage preschool-age children in high quality shared reading it can foster children's oral language development and later academic achievement (Crain-Thoreson & Dale, 1992; Wells, 1985). Indeed, randomized studies demonstrate that high quality shared-reading can produce substantial changes in preschool children's language and preliteracy skills (e.g., Lonigan & Whitehurst, 1998; Arnold, Lonigan, Whitehurst, & Epstein, 1994; Whitehurst et al., 1988; Lonigan, Anthony, Bloomfield, Dyer, & Samwel, 1999). Shared-reading interventions are most beneficial when they are conducted at school and at home (Lonigan & Whitehurst, 1998). While most shared-reading research has been of small scale, the present study evaluates the impact of two complimentary large scale shared-reading programs for the preschool and home. The first program, called Raising a Reader, encourages shared-reading among children and their preschool teachers and among children and their parents through provision of high quality children's literature via a weekly book rotation system and by establishing connections among families, libraries, and preschools. The second program, called Family Nights, provides monthly parent education classes in which parents are taught optimal shared reading strategies and then practice the new strategies with their own children.

Purpose/objective/research question/focus of study:

This large scale multiyear project evaluates the effectiveness of the Raising a Reader program and the Family Nights program as implemented according to manualized procedures in actual preschool and home environments. Specifically, these programs were added as a supplement to some classrooms that were already participating in the Texas Early Education Model (TEEM, see below for description). That is, in order to evaluate the additive benefits of these two parent programs to the TEEM model, some classrooms received no supplemental parent programming, some classrooms received the RAR program, and some classrooms received the RAR program plus the Family Nights program. The present study reports preliminary findings based on data collected from the first two annual cohorts of children. Ultimately the study will include four annual cohorts of children.

Setting:

The setting for this research consisted of center-based preschool programs in Houston, Texas that primarily served economically disadvantaged populations. About an equal number of federally funded Head Start classrooms, state funded public school prekindergarten classrooms, and privately funded child care classrooms participated. Teachers were enrolled in the Texas Early Education Model (TEEM; Landry, Swank, Anthony, & Monsegue-Bailey, 2008). This empirically validated model emphasizes frequent, intensive, and ongoing professional development for early childhood educators, onsite mentoring, regular monitoring of children's academic progress, and research-based curricula (Landry, Anthony, Swank, & Monsegue-Bailey, in press). TEEM also requires integration among early childhood education service delivery systems. Classroom level inclusion criteria were (a) teacher participation in TEEM, (b) full day

preschool programming, and (c) most children in classroom were four years of age or older. Across the first two years of the project, fifty-five classrooms who met these criteria enthusiastically consented to participate.

Population/Participants/Subjects:

Active parental consent was obtained to assess children's language and literacy skills twice during the preschool year to document amount of children's learning. From among consented children, at least eight children were randomly selected from each classroom to be included in the outcome evaluation. This translated into 518 children of approximately 990 classmates. The evaluation sample of 518 children included 52% boys and 48% girls. Most children came from ethnic minority and low SES backgrounds, given that these are the populations targeted by TEEM. Specifically, the evaluation sample was comprised of 47% Hispanic/Latino American children, 35% African American children, 11% Caucasian children, 4% multiracial children, and 3% other ethnicity, according to parent reports. Most children were four years old. The mean age of the evaluation sample at pretest was 4.5 years, with a standard deviation of .5 years. Most children came from families that exclusively spoke English in their homes, i.e., 62% of families. However, some families reported speaking both English and Spanish in their homes, i.e., 9% of families. Finally, 26% of families primarily spoke Spanish in their homes.

Intervention/Program/Practice:

The Raising a Reader program involves two main components: weekly rotation of four new books through children's homes and partnering preschool classrooms and families with neighborhood libraries. Great efforts were exerted to ensure that the UTHSC implementation of the RAR program closely adhered to the *RAR Coordinator Resource Manual* (2006). Implementation of the RAR program was initiated in the field by four project activities that typically occurred within a one or two week time frame. Specifically, the coordinator, an assistant, and a given preschool teacher set up the pocket charts and book bags in convenient locations in the classroom. The coordinator trained teachers onsite in the logistics of the book rotation system, tracking of materials, and contents of the RAR Teacher Attaché, which highlights a number of shared reading strategies, classroom instructional strategies, and easy to distribute take-home activities for the children. Coordinators presented the program to parents at a Parent Orientation, which was held at the schools. Finally, the coordinators conducted "child introductions" during a regularly scheduled circle time at the preschools. The purpose of these child introductions was to build children's anticipation and excitement around the book rotation program.

Following initiation of the RAR program, the coordinators visited each classroom weekly when the book rotations were conducted. Weekly classroom visits were tapered to every other week in one to two months, depending on the amount of support needed for teachers to implement the rotations and tracking independently. Every other week visits continued in all classrooms until the classroom-based components of the RAR program were satisfactorily and independently performed by the preschool teachers. The fidelity criteria employed was RAR's own *Evaluation Site Rubric* measure from the *Coordinator Resource Manual* (2006). Monthly classroom visits by the UTHSC-based RAR coordinator continued throughout the remainder of the school year. The foci of visits were to assure the book rotation system remained in place and

was functioning well, oversee tracking of materials, problem solve challenging parents or contextual factors, encourage use of the *Teacher Attaché*, and generally support teachers' attempts to motivate children and parents.

About two months into the Raising a Reader intervention, we implemented a three-pronged approach to establishing library connections at all schools. One, librarians came to the preschool classrooms to conduct a read aloud and talk about the library and role play visiting the library. Two, librarians presented at a second parent orientation event. At this event, families were issued blue library bags, library cards were issued, and the variety of programs offered by the library were discussed by the librarian and parents. Three, classrooms took a field trip to the local library.

At monthly Family Nights, parents learn about and practice shared reading techniques with their children. Content of the Family Nights program includes strategies often associated with Dialogic Reading, e.g., verbal extensions, open-ended questioning, scaffolding, prereading activities, repetition of new vocabulary, turn taking, choral reading, and cloze procedures.

The Family Nights included parent instruction in shared reading techniques, child care during the parents' instructional time, time for parents to practice the new techniques with their own children, and finally a sit down pizza dinner. The parent education curriculum was developed by UTHSC and consists of five courses. The curriculum is based on scientific research of dialogic reading and current best practices for read alouds. Five Family Nights were held at each school that had a classroom assigned to this condition. Instructors at Family Nights included the principal investigator, UTHSC-based RAR coordinators, and Houston TEEM mentors. Parental participation was voluntary and varied greatly by school and course. Parents were informed of the Family Nights by means of posters, fliers, emails, teacher reminders, and word of mouth.

Research Design:

Classrooms were randomly assigned to one of three groups: Control (i.e., TEEM), Raising a Reader (i.e., TEEM+RAR), or Family Nights (i.e., TEEM+RAR+Family Nights). Classrooms of children and their parents participated in the intervention programs for 4 months. Children's school readiness skills were assessed prior to intervention, in November or December, and again immediately after intervention, in April or May of the same school year. The same measures were administered at pretest and posttest. The study will ultimately be powered to detect small effect sizes once data are gathered from all 26 classrooms. To date, the project has enrolled 55 classrooms and only has power to detect moderate to large effect sizes.

Data Collection and Analysis:

Standardized and unstandardized assessments of children's English language, cognitive, and English emergent literacy skills were purchased, borrowed, or constructed by UTHSC. Specifically, children's vocabulary was assessed with the *Expressive One-Word Picture Vocabulary Test* (Brownell, 2000a) and the *Receptive One-Word Picture Vocabulary Test* (Brownell, 2000b). Children's complex oral language usage was measured using the *Comprehensive Evaluation of Language Fundamentals Preschool* second edition (Wiig, Secord, & Semel, 2004). Children's story comprehension, memory, and attention span were assessed

with a number of subtests from the *Woodcock Johnson III Tests of Achievement* (Woodcock, McGrew, & Mather, 2001a) and the *Woodcock Johnson III Tests of Cognitive Abilities* (Woodcock, McGrew, & Mather, 2001b). Children's knowledge of letter names and letter sounds was assessed with homemade flashcards of all 26 English letters. Children's phonological awareness was assessed with the *Preschool Comprehensive Test of Phonological and Print Processing* (PCTPPP; Lonigan, Wagner, Torgesen, & Rashotte, 2002). Children's knowledge of concepts about print was assessed with the PCTPPP and the *Developmental Skills Checklist* (McGraw-Hill, 1990).

Children were tested individually by trained examiners. Testing was conducted in relatively quiet locations in children's preschools. Pretesting was conducted in November and December. Posttesting was conducted in April and May. Children's participation in testing was reinforced using verbal praise ("Nice working", "I'm having fun with you"), physical praise (e.g., high fives), and tangible reinforcers (e.g., stickers).

Findings/Results:

Multilevel modeling was performed to account for the fact that children in the same classroom were not independent of each other. Not only were children from the same classroom exposed to the same classroom instruction, but classrooms were the unit of random assignment and the unit of intervention under investigation. Multilevel ANCOVAs were used to predict posttest scores from intervention condition after controlling for children's pretest scores on a given outcome measure and classroom nesting.

Amazingly with only 14 to 21 classrooms in each of the 3 groups, we did find significant effects of the programs on some outcomes. Specifically, children in the TEEM+RAR+Family Nights group demonstrated significantly more growth than children in the TEEM+RAR group in phonological awareness ($t[1, 275]=2.56$, $p = .01$) and print awareness ($t[1, 242]=1.97$, $p = .05$). Children in the TEEM+RAR+Family Nights group also demonstrated more growth than children in the TEEM+RAR group in expressive vocabulary ($t[1, 242]=1.91$, $p = .06$), receptive vocabulary ($t[1, 304]=1.74$, $p = .08$), and complex oral language abilities ($t[1, 244]=1.75$, $p = .08$). However the later three findings must be considered tentative as they did not reach standard criterion values for statistical significance, i.e., $p < .05$.

Conclusions:

The results of this study lend themselves to two important conclusions. First, shared-reading interventions can effectively promote children's language and emergent literacy even when conducted in realistic preschool settings. This is an important extension of prior efficacy studies that have been implemented by research staff in artificial, "pull-out" small group settings in preschools or in researchers' laboratories. As such, the present study provides ecologically valid evidence in support of adding a parent involvement component to the current Texas Early Education Model (TEEM). Although at first look this may seem a rather short-sighted implication, it actually could have large policy and fiscal implications given that TEEM is currently legislated as the integration model for early childhood education throughout Texas. Specifically, there are over 3000 TEEM classrooms during this 2008/2009 school year, and we anticipate this number to quadruple next school year.

The second important conclusion from this study is that the findings imply that simply increasing children's exposure to high quality children's literature may not be enough to have measurable impacts on children's language or literacy development. Instead, the results suggest that parent training in optimal shared-reading practices may be necessary for children to maximally benefit from programs that increase exposure to children's literature. Some of the specific shared-reading practices that the Family Nights program emphasized were picture walks, cloze procedures, scaffolding children's responses, closed- and open-ended questioning, and extension activities. The Family Nights program, like most effective parent training programs, was comprised of number of components. These included didactic instruction in optimal shared-reading strategies, modeling of those strategies, parents role-playing the strategies, and finally parents practicing the shared-reading strategies with their own children.

The present findings should be considered preliminary because they are based on only 55 classrooms of the 126 classrooms who will ultimately participate in this multiyear evaluation. Moreover, program effectiveness was only examined in terms of effects on English language and English emergent literacy abilities. Future reports from this evaluation will include examination of effects on Spanish language and literacy abilities, once enough Spanish speaking children and classrooms are studied. Although a preliminary report, this study already shows that putting high quality children's literature in the homes of at-risk children and providing parents with shared-reading strategies can be an effective and fiscally efficient means of fostering children's oral language and literacy development, which are critical for scholastic success.

Appendixes
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Appendix A. References

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Appendix B. Tables and Figures

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Table 1

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