

## **The Effects of Educational Television Viewing in an Early Childhood Family Literacy Intervention**

### **Preliminary findings**

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**Abstract.** This research extends earlier work on the effects of bringing families to school to attend daytime preschool and Kindergarten transition programs that were designed to prepare schools for diverse families and to prepare families for school. Here, 12-week evening Family Literacy workshops provided enjoyable learning activities for parents and their young children. A subgroup of the family literacy schools participated in a TVO and book-making intervention that targeted alphabet knowledge. Research tracked families' participation, home literacy practices and measured children's literacy development. Results showed that children whose families participated in the TVO intervention had significantly greater literacy growth, particularly in the area of alphabet knowledge and conventions of print.

**Purpose of the Study.** A large ongoing research study is being carried out in 48 public schools in which evening Family Literacy workshops are being held to help families during the transition to school, particularly in the area of literacy development. In these communities, recent immigration is high and approximately 60% of families report speaking a language other than English. In some schools, more than 115 languages are spoken. The Family Literacy program was designed to help families in these communities to come to know the school and to learn about their preschool children's literacy development while learning English at the same time. A subgroup of these families participated in a TVO viewing and/or a photograph book-making intervention that targeted specific alphabet skill development, for example knowing the names and sounds of the letters. Pre/post research was carried out to see whether TVO viewing as a component of a Family Literacy intervention, would have an effect on children's gain scores in literacy.

In addition to designing a program for the culturally and linguistically diverse families of the Family Literacy project, a further aim was to investigate whether the TVO viewing could enhance the program, since most families watch English language television and want to know how programs will help their child to be ready for school. Given the research on the effectiveness of children's educational television programs in the U.S., it was hypothesized that adding a literacy-based educational television program offered through TVO may help the program facilitator to explain concepts related to English alphabet usage and may help children to acquire English language alphabet knowledge and concepts of print. It was important to select specific educational programming that targeted literacy development, since research has shown that content is critical to learning goals and that too much television or poor content can detract from learning. In order that the alphabet concepts presented via the TVO program be reinforced through a home activity, one television intervention group also received an alphabet book-making intervention. The research examined the impact of the TVO programs and book-making on children's literacy growth scores from fall to spring over the course of a school year.

**Methods.** The larger study has been carried out over two years but the TVO intervention study reported here was carried out only in Year 2. In Year 2, 13 participant schools for the television intervention project were chosen at random from a larger number of schools (n=48) participating in a 12-week family literacy evening workshop program in a large greater-metropolitan school board. Participants in the research schools were representative of the general population of the school board that has a high proportion of English-language learners. Three schools participated in the television project, three in the book-making project, three in the television and book making, and the remaining schools had the regular family literacy programming. In the research schools, 185 preschool children (mean age 56.3 months) participated, 87 were girls and 98 were boys. Seventy-three children spoke English and 112 children spoke a language other than English. The two television groups included 58 children, and the book-making-only group included 41 children.

Families were recruited for research on the first night of the program and pre-testing of the children was carried out. Parents were interviewed about their home literacy practices and visits were made to the programs throughout the 12-week session to monitor the intervention. Activities included storytime and discussion, key messages about literacy development such as alphabet knowledge and sounds, conventions of print and comprehension, learning English, finding resources in the community, crafts and literacy games.

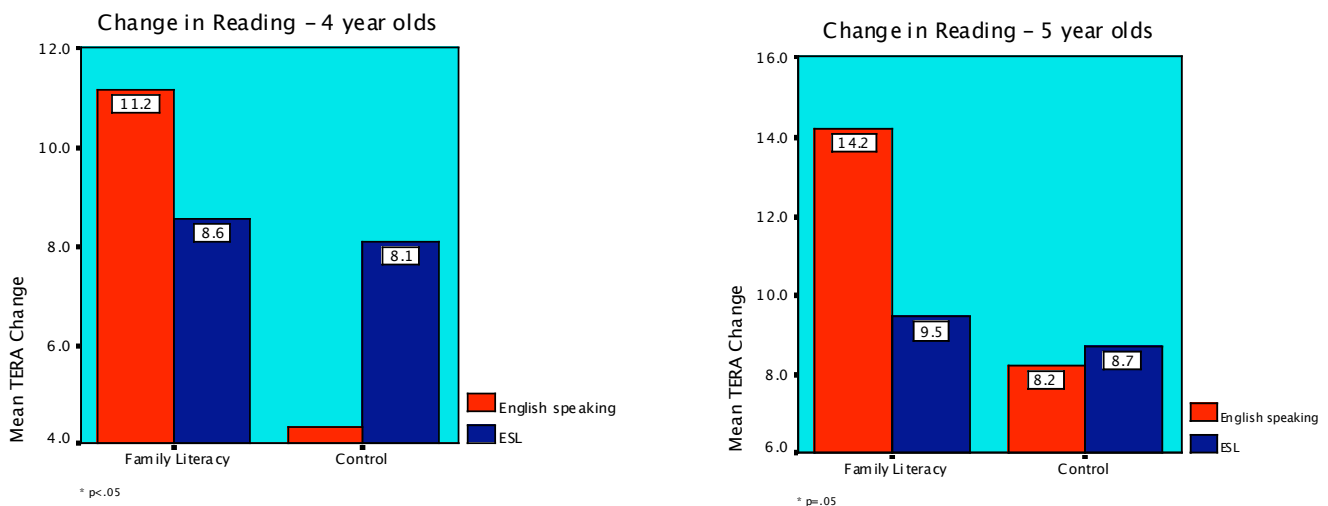
**Data Sources.** During the workshops, the TVO intervention group watched one of two preschool programs designed to teach alphabet knowledge (Letterella and Alphabet Goop). The shows were provided in VHS or DVD format for the school-based programs by TVO. Families were also encouraged to watch the shows at home during regular viewing time and to follow up with TVO's online children's programs where possible. The book-making groups took photographs of objects and people in their own homes and neighborhoods, objects that began with all the sounds of the alphabet (e.g. Aaron for the letter A, ball for the letter B etc.). A personalized alphabet book was produced for each child through a collaboration between the researcher and Kodak Eastman. These books were used in the program to reinforce the alphabet names and sounds. Post-testing of the children's literacy development and a second interview with parents about home literacy practices were carried out on the final evening of the program. Three measures of children's literacy development were used at pre and post assessments. They included the Peabody Picture Vocabulary Test, the Test of Early Reading Ability (TERA-3), and a previously-employed measure of children's invented spelling.

A control group from similar schools included 4- and 5-year old children whose families agreed to their participation in the research but who were not involved in a program that year. The same measures were used to collect information about the early reading ability of the control group children.

## Results

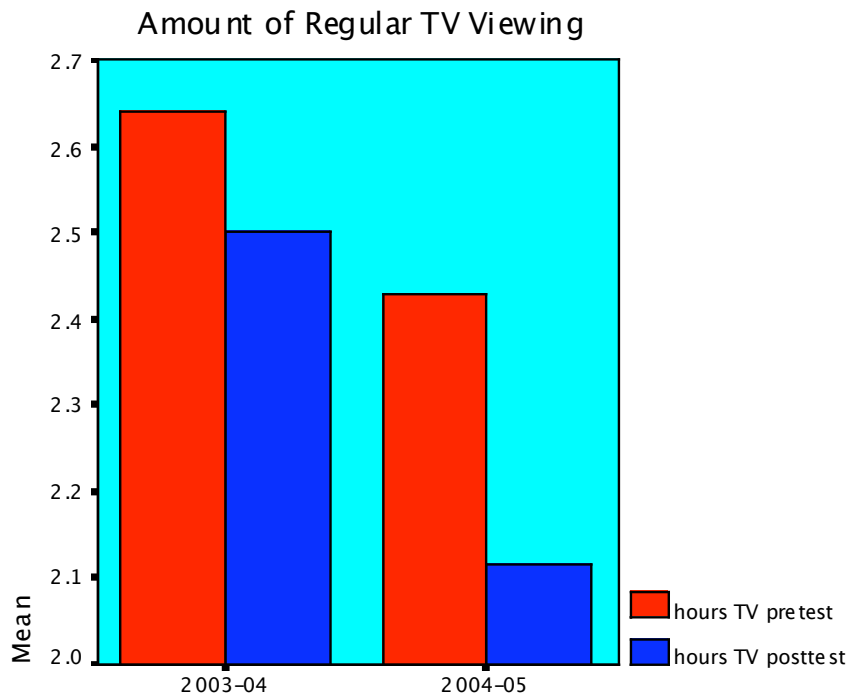
### ***Overall Benefits of the Family Literacy Program***

Overall the Family Literacy program showed benefits for children who participated in the program with their parents. Analyses were carried out separately for 4-year olds and for 5-year olds. Results showed that the “gains” in early reading as measured by the Test of Early Reading Ability were greater for children in the Family Literacy group as compared to the control group. Findings were similar for 4-year olds and for 5-year olds. An interesting and unexpected finding was the greater gain scores for English First Language children. This stands in contrast to previous research on parent involvement programs which showed greater gains for children who were English language learners (Pelletier & Corter, 2005). The two graphs below show the positive benefits of the Family Literacy program for 4- and 5-year old children.



### ***Changes in children's early reading scores***

Overall, children in the Family Literacy intervention made standard score gains in reading and in vocabulary. Home literacy practice surveys revealed that children watched less entertainment television such as sitcoms, watched more educational television, read more books and were taken more often to the library than prior to the intervention. The following graph depicts the change in regular entertainment television viewing before and after the Family Literacy program.



*Amount of "entertainment" television viewing before and after the family literacy intervention*

### ***Specific Benefits of the TVO Intervention***

Parents from all Family Literacy research sites were familiar with TVO programming whether they were in the TVO intervention or not, and parents reported that children generally watched 1-2 hours of TVO children's programming daily.

In post program questionnaires regarding what was learned in the program, more parents from TVO sites mentioned an increased understanding of phonological skill building (e.g. emphasizing letter-sound connections) as an important component of supporting their children's emergent literacy development.

In contrast, parents from non-TVO sites mentioned increased understanding of how to read books and/or make crafts. Many of these parents also listed having their children copy letters or sentences, but without the emphasis on connecting letters/words/sentences to sounds.

TVO site parents also mentioned TV as another domain through which children could become literate. For example, parents reported:

- I thought the use of taped programs from TVO Kids was interesting for me and the kids

- It was part of a broader definition of literacy – literacy learning can be fun and interactive and expressed in different ways
- I would like to see more skills developed around helping kids read through watching TV or video games

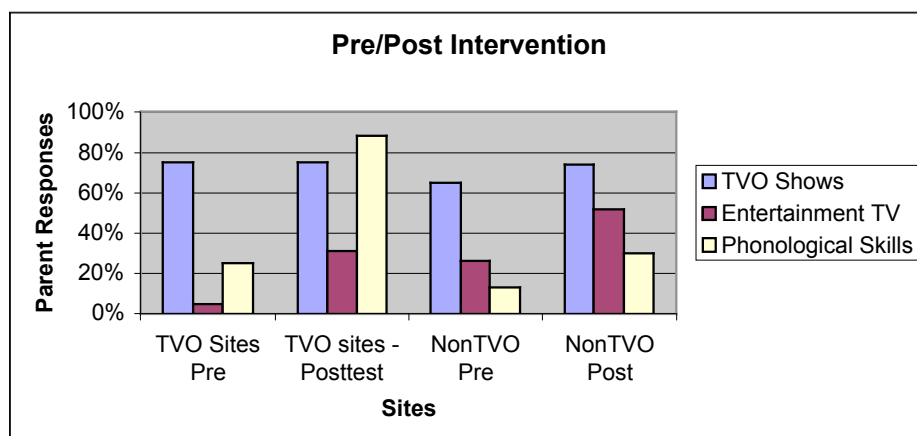
During the TVO viewing in the Family Literacy workshops, the children were engaged, responded to the Gisèle character by calling out the letter name and the sound and practiced making the sound during and after the program.

For non-TVO sites:

- parents who listed TVO as favourite shows - 65%
- parents who listed “entertainment TV” as favourite shows - 46%
- parents who made reference to phonological skills - 27%

For TVO sites:

- parents who listed TVO as favourite shows - 75%
- parents who listed “entertainment TV” as favourite - 31%
- **parents who made reference to phonological skills - 88%**



Thus, although many children were already watching the shows, at the TVO sites the incidence of entertainment television viewing was slightly lower and the reference to phonological skills (sounding out, knowing letters and sounds etc.) was higher.

Statistical tests (one-way ANOVAs) were carried out to examine the overall impact of the TVO intervention on children's early reading ability as measured by the TERA-3. Raw growth scores were computed by subtracting children's pretest scores from their post test scores. Overall, children in the TVO viewing group and TVO plus book-making had higher growth scores than children in the regular program (TVO-only change score mean = 11.0, TVO + books = 12.1, books -only = 10.9 and regular program = 5.8). The most striking finding was that children in the TVO intervention groups had significantly greater growth scores on Alphabet Knowledge and Print Conventions subtests than the regular group, (TVO-only = 5.0, TVO + books = 6.7, books-only = 3.4, regular program = 1.9). A similar

pattern was found for Print Conventions (for book-making group in particular) but not for the Meaning subtest. The following graph depicts these findings.

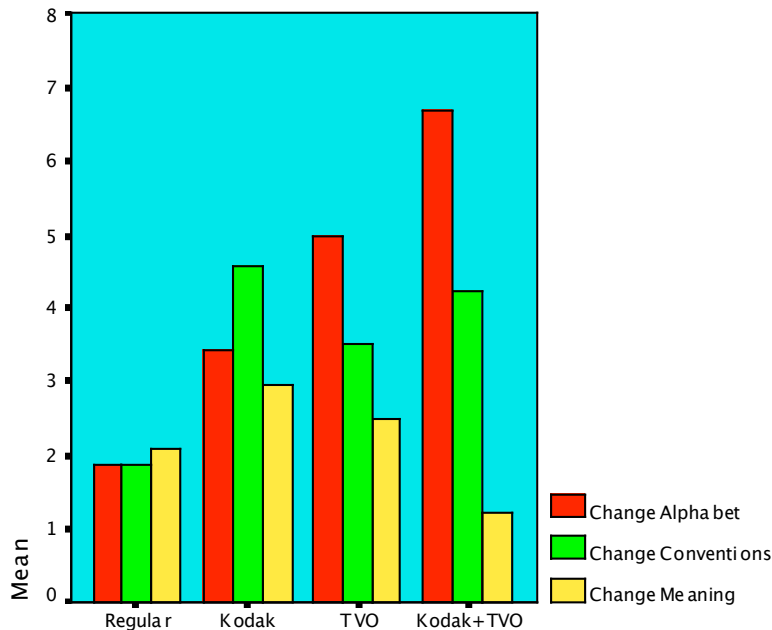


Figure 2. *Effect of TVO viewing and book making interventions on alphabet knowledge, print conventions and meaning*

**Educational Importance of the Study.** Using a pre/post intervention design, it was found that among families participating in a family literacy intervention project, children who watched TVO with their parents as part of the intervention, made significantly greater gains in early reading than children in the regular family literacy intervention. Children who participated in TVO viewing and alphabet book-making with their families, made the greatest gains. Therefore, this study points to the benefits of including high-quality children's television program in a family literacy intervention and suggests that television viewing has demonstrated benefits for early literacy learning, particularly when coupled with a meaningful home activity such as book-making.