

Six Years Later: Effect of Family Involvement Training on the Language Skills of Children From Migrant Families

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Abstract

This six year follow-up study to the previously published quasi-experimental study on this group of children and their migrant families examines the effects of a parent involvement program on kindergarten children's families. Parents in the original study participated in sessions available throughout their child's kindergarten year that helped them engage their children in academic activities linked to their children's curriculum in school. These parent involvement sessions were implemented as one component of a Migrant Education Even Start family literacy program. The study was conducted at a rural Midwestern elementary school with 22 kindergarten children from families participating in the parent involvement training program, and 28 kindergarten children from families not participating. This longitudinal study first followed these children through the end of first grade. Findings indicated that by the end of first grade, children from families participating in the parent involvement training program scored significantly higher on language measures than children in the control group. Now researchers at the University of Nebraska Medical Center have followed these children through 5th or 6th grade and have collected state reading assessment scaled scores. Results demonstrate that children in the treatment group again scored significantly higher than children in the control group. This suggests that equipping migrant families with new abilities to nurture their children's language skills leads to positive and lasting reading outcomes for their children.

Key words: parents, involvement, race, ethnicity, migrant, early childhood education, reading, literacy, longitudinal research, family, families, Even Start, quasi-experimental research, control group, intervention, effects

Introduction

Our interest in this research topic began eight years ago when then growing numbers of federal initiatives such as Reading First, Early Reading First, and No Child Left Behind signaled the importance of early literacy experiences for young children. With the tremendous growth in the number of English language learning (ELL) students in the United States, a great concern was and continues to be how best to effectively support students who primarily speak a language other than English. ELL children from low-income families are less likely to enter school with a rich literacy background and are twice as likely as English-speaking, White students to be below grade level in reading (Snow, Burns, & Griffin, 1998). Targeting this population of ELLs at a young age is crucial as poor school performance in first grade is a significant predictor of students who will drop out of school (Alexander, Entwisle, & Kabbani, 2001).

The question becomes: What strategies might help ameliorate these negative effects? The previous publication of this study of children's performance at the end of first grade found that providing parent involvement training to families resulted in significantly higher language standard scores for children in treatment families at the end of first grade compared to children in the control group (St. Clair & Jackson, 2006). Parenting quality is predictive of long-term academic achievement of students and of their social and behavioral progress in school (Belsky et al., 2007). Numerous other studies have noted that literacy-rich home environments (Denton & West, 2002) are essential to positive outcomes of children and that parent involvement positively influences social-emotional competence (Fantuzzo & McWayne, 2002). In their meta-analysis of 51 research studies, Henderson and Mapp (2002) found higher student achievement occurred when real partnerships between families and schools existed. These positive working relationships between home and school are especially important for children who are socially and economically disadvantaged (Lin, 2003). Findings from a study of four high performing school districts with large populations of migrant families suggest that parental involvement of the most marginalized students is critical to their success (Lopez, Scribner, & Mahitivanichcha, 2001).

Given the importance of parent involvement to the positive academic outcomes of disadvantaged students, more information was needed, then, to examine how specific parent education curricula are related to kindergarten

children’s early literacy development, especially for those from migrant backgrounds. Our earlier published study found that parent involvement training with families during a child’s kindergarten year resulted in significantly greater broad language skills for children at the end of first grade, compared to a control group including children with families that did not participate in the parent involvement training. We decided to follow this same group of children into 5th and 6th grade to examine whether the intervention group would continue to have significantly higher scores on state reading assessments.

Purpose and Research Questions

This began as a two-year study and was designed to evaluate the efficacy of the family involvement component of a Migrant Education Even Start (MEES) family literacy program and its long-term impact on the young elementary children in these families. It has now become an eight-year study, and we have followed children into 5th and 6th grade. To measure the impact, children drawn from families participating in the family involvement training comprised approximately half of the sample, while children with matched demographics from families not participating in the program made up the other half. Participating families were provided training and support during the children’s kindergarten year.

One primary research question guided the first study: Does the integration of the kindergarten educational curriculum into a MEES parent education program positively impact children’s language skills through first grade? For this study, our research question is simply, “Do youth in the intervention group continue to perform significantly higher than youth in the control group on the state reading assessment?”

Method

Participants

Initial Study	Male Children	Female Children	Totals
Intervention	7	15	22
Control	13	15	28
Totals	20	30	50

Families for this study were recruited from a MEES family literacy program in the Midwest. The school district in which the program is located had experienced a dramatic increase from 2.6% to 29% ELL students in the 10 years preceding the implementation of this study. Over the course of the study, 22 families participated in the family involvement training program, and their 22 ELL kindergarten and then first grade children were assigned to the intervention group. Twenty-eight families were recruited to allow their children to serve in a control group, resulting in 28 ELL kindergarten and then first grade children serving as the control group. Most of the children and families (in both

groups) were Hispanic (97%). One family was Vietnamese. All children spoke English with varying degrees of fluency.

Procedures

Design

This study utilized a quasi-experimental research design, designated as such because parents self-selected whether or not to participate in the migrant education family involvement training program (MEES). Parents were recruited from the MEES program for the intervention. Their children attended one of two elementary schools in the community: one public and one parochial. A control group matched for ELL status was obtained through the recruitment of children from the same school locations as the intervention group.

Participating families were offered a total of 25 one-hour training sessions over the course of the school year. Typically, families participated in about half of the offered sessions. There was a wide range of participation, with families participating in as few as 8 and as many as 24 sessions. MEES staff, working closely with the kindergarten teachers to design the weekly offerings, facilitated educational and networking sessions with the parents. The content of the parenting curriculum was drawn from their child's kindergarten curriculum (e.g., letter of the week, theme, literacy skills, sight words, and literature). In addition to modeling ways to support their children's learning in these content areas, families were also provided resource materials to support learning at home. These resources included Play Station equipment and *Light Span Achieve Now* software to be played on the Play Station equipment (reading and math concepts in game form), Leap Pads (talking books), Leap Desks (letter and word identification), and books. Materials were checked out on loan to families. Duplicated materials, such as nursery rhymes and sequencing activities, were provided on a timely basis to support kindergarten classroom curriculum.

The conceptual framework of the family involvement program consisted of two core elements: (1) a culturally sensitive approach to working with parents from diverse cultures and economic backgrounds, and (2) the use of highly qualified parent educators. The program's key component was modeling, with opportunity for supportive practice, provided to the adult family members to facilitate their use of the resource materials at home with their children.

Assessment

In our earlier study, we used the Woodcock-Muñoz Language Survey (WMLS) to measure children's knowledge and skills on broad English language skills, as well as in sub-tests including picture vocabulary, verbal reasoning

through analogies, letter and word identification, and writing (Woodcock & Muñoz-Sandoval, 2001). Reliability for the broad English ability score ranged from .96 to .97 for five- to seven-year-olds. Sub-test item reliability ranged from .70 (picture vocabulary) to .99 (letter-word identification) for the same age group. Concurrent validity was established by the authors using a school-age study which consisted of 254 participants randomly selected from public and private schools in rural, suburban, and urban environments. The WMLS was compared to the Wechsler Intelligence Scale for Children-Third Edition (WISC-III; Wechsler, 1991). Correlations for the broad English ability test to the WISC-III resulted in .80 for verbal IQ, .55 for performance IQ, and .76 for the verbal comprehension index. For these reasons, the WMLS was selected as an appropriate instrument to measure child language outcomes.

The WMLS was individually administered in English with each child in the intervention and control groups. Data were collected in the fall and spring of the children's kindergarten year. In the second year of the study, the WMLS was only administered in the spring of the children's first grade year. At this third administration of the WMLS, there were 19 children remaining in the intervention group and 23 children remaining in the control group, totaling 42 of the original 50; the remainder had moved away from the district.

In the summer of 2010, the researchers obtained state reading assessment scaled scores for all of the children continuing in the district. Of the original 50 children, 33 had recently completed 5th or 6th grade, depending upon which year they began in our study (13 from the intervention group, 20 from the control). The Nebraska State Reading Assessment, NeSA-Reading, is a state-wide assessment developed by Nebraska educators. It aligns with state content standards in order to fulfill statutory requirements. The 2009-2010 school year was the first year of NeSA-Reading implementation for grades 3–8 and 11. The 50-item multiple choice test consists of reading passages and vocabulary questions. NeSA-Reading results consist of three standard scores: an overall score, and two content standard scores—reading comprehension and vocabulary. It is administered online or in print versions, depending on the school district's preference (Nebraska Department of Education, 2010).

Results

As noted in our earlier study, kindergarten fall WMLS broad standard scores were analyzed using a one way analysis of variance (ANOVA). There were no significant differences between children's scores in the intervention ($M = 98.07$, $SD = 9.68$) and control groups ($M = 97.56$, $SD = 7.28$), $F(1,28) = 0.027$, $p > .05$, two-tailed. These results suggest that both groups of children

had comparable skills at the initiation of the study. Analysis of variance (ANOVA) for gender differences revealed no significant differences between girls ($M = 100.24$, $SD = 5.77$) and boys ($M = 102.58$, $SD = 10.19$), $F(1,27) = 0.625$, $p > .05$, two-tailed.

Intervention Effects on Children

After all participants completed kindergarten, gains in standard scores for participants were analyzed using a multivariate analysis of variance (MANOVA). Children of parents who participated in family involvement training scored higher in letter-word identification and on overall broad score, but not significantly more so than the children in the control group. Scores in picture vocabulary, verbal reasoning, and writing were similar.

These children were assessed again using the WMLS at the end of first grade. Using analysis of variance (ANOVA), the differences in children's scores from the beginning of kindergarten to the end of first grade were compared. Children in the intervention group made larger standard score gains than those in the control group across the overall broad English ability test (see Table 1). First grade children in the intervention group made significantly greater gains than the control group on overall broad scores (see Table 2).

Table 1. Descriptive Data (First Grade Cohorts 2004, 2005;WMLS broad score differences)

		N	Mean	Std. Dev.	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Broad Score Differences	Control	23	-1.83	7.70	1.61	-5.16	1.51
	Intervention	19	4.68	5.44	1.25	2.06	7.31
	Total	42	1.12	7.46	1.15	-1.21	3.44

Table 2. ANOVA of WMLS Standard Score Differences (fall of kindergarten to spring of first grade)

		Sum of Squares	df	Mean Square	F	Sig.
Broad Score Differences	Between Groups	440.995	1	440.995	9.590	.004**
	Within Groups	1839.410	40	45.985		
	Total	2280.405	41			

Note: Two-tailed analysis was used.

** $p < .01$.

On the WMLS, a score of 100 represents the mean or average score for the normative group and a deviation of 15 points either way represents above or below average scores. At the conclusion of the two-year study, children in the two groups experienced significantly different outcomes on standard scores. On the overall broad English score, children whose families participated in the training achieved a mean standard score of 102.7 by the end of first grade, whereas children whose families did not participate scored a mean of 95.1 (see Figure 1).

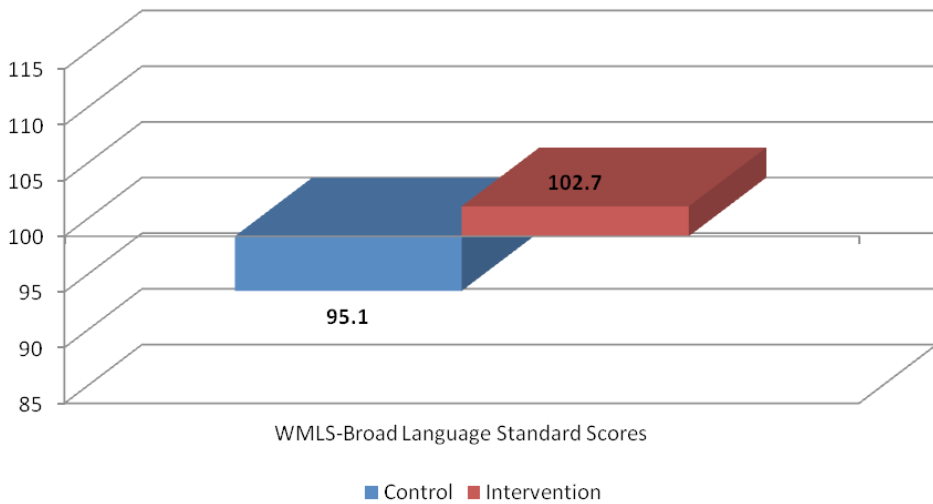
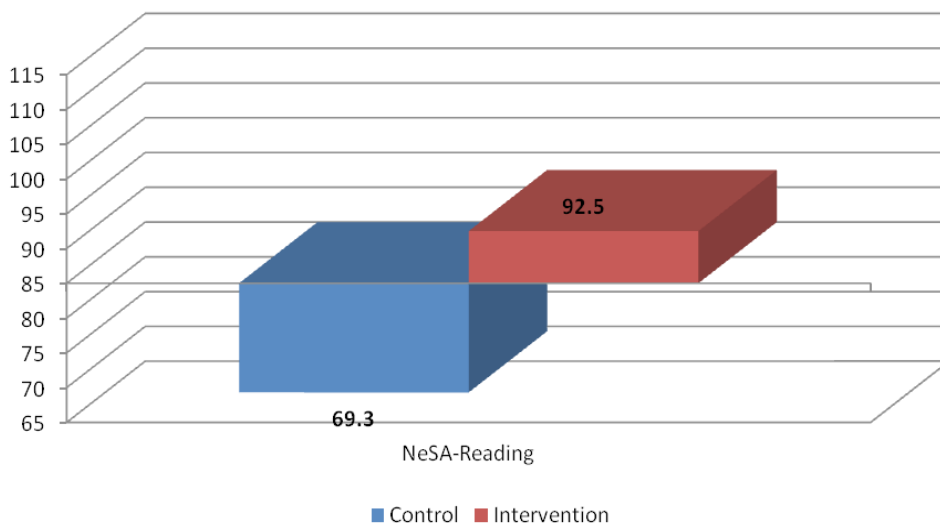


Figure 1. WMLS Broad Standard Scores at End of First Grade

Now, six years since we began the study, we analyzed state reading assessment scaled scores (5th and 6th grades) to determine whether youth in the intervention group would continue to have significantly higher scores than youth in the control group. Given that these were migrant families, we were not surprised that our group of 50 had become a group of 33, with 13 in the intervention group and 20 in the control group.

The state reading assessment yields a scaled score ranging from 1–200, with categories including not meeting, meeting, or exceeding standards in reading. As noted in Figure 2, the intervention students earned a mean scaled score of 92.5, which falls into the “meets standards” range of 85–134. The control group students earned a mean scaled score of 69.3, which falls into the “does not meet” category (scores below 85). An independent samples test was used to assess whether results were significantly higher for the intervention group. The intervention group scored significantly higher on the state reading assessment scaled scores ($m = 92.46$, $sd = 33.488$) than the control group ($m = 69.30$, $sd = 32.679$), $p = .029$, one-tailed.



Note: A score of 85 or greater represents proficiency

Figure 2. Nebraska State Reading Assessment Scaled Scores at End of Fifth or Sixth Grade

The mean scaled score of all Nebraska 5th and 6th grade students was 101. Approximately 68% of Nebraska students are “proficient” or meet state standards in reading. Comparing these findings with the results of our study, we find that the treatment and control groups were both below the average score; however, the treatment group was within the range of scores noted as meeting standards, whereas the control group was significantly lower and were in the “does not meet state standards” group.

Discussion

Youth in the intervention group continued to perform significantly higher than youth in the control group in reading at the end of 5th or 6th grade. Despite the small sample size remaining in our study, significant differences continued to be found at the end of 5th and 6th grade on state reading tests. The treatment group scored significantly higher than the control group, with the treatment group falling into the “meets standards” category and the control group children falling into the “does not meet standards” category.

Findings from this study can provide helpful guidance to district leaders and practitioners interested in using preventive rather than reactive measures to assist ELL students in meeting standards in reading. The model tested for this study was a family literacy program enhanced with parent education sessions

designed to instruct parents on how to support learning at home and to provide resources for home use. Ongoing communication between the parent educators and classroom teachers was essential to shape the parent education curriculum. Teachers appreciated the opportunity to engage in this triadic approach (teacher–family–parent educator) to support family involvement. As was noted in our earlier study, however, positive effects of such an intervention may be delayed. Significantly more positive outcomes were found for children of families participating in the parent involvement training program at the end of first grade, rather than at the end of kindergarten. Had we discontinued the study at the end of kindergarten, we would not have realized the significantly higher scores for children in the treatment group at the end of first grade and again at the end of 5th/6th grades.

Schools may want to consider ways to partner with parent education programs in their communities to replicate this program. Linking community resources (such as adult education programs or existing parenting programs) and schools has the potential of creating positive learning environments for both children and families. Further, using fun learning aids as part of the curriculum helped to engage both parents and children in extending literacy activities in the home environment.

Another area of future research would be to identify the extent to which the family involvement sessions and the technology aids impacted child outcomes. Because of the research design used in this study, we can only say that the combined use of family involvement training, the technology aids, and the supporting resources, including all components of the MEES program (adult education, parent education, and parent–child literacy activities), made a significant impact on children’s standard score gains compared to the control group. We cannot say that one of these made a greater impact or whether one of these alone might be responsible for the outcomes. A future research project might examine the differential impact of these variables.

As school districts seek to meet the expectations of future federal initiatives such as the reauthorization of the Elementary and Secondary Education Act, educators may want to consider approaches to better support parents and other family members in their role as educators of their children. This may require a shift in thinking on the part of some educators of what constitutes family involvement, so that non-traditional strategies might be identified which would strengthen school and family partnerships. This study provides evidence suggesting that equipping migrant families with new abilities to nurture their children’s language skills leads to positive outcomes for their children. Key to the success of this project was the collaboration between classroom teachers and parent educators to ensure the integration of the child’s curriculum into

home activities. Parent involvement training is a worthwhile approach school districts may wish to utilize in order to meet ever-increasing expectations for student performance.

References

- Alexander, K. L., Entwisle, D. R., & Kabbani, N. (2001). The dropout process in life course perspective: Early risk factors at home and school. *Teachers College Record*, 103(5), 760–822.
- Belsky, J., Vandell, D., Burchinal, M., Clarke-Stewart, K., McCartney, K., & Owen, M. (2007). Are there long term effects of early child care? *Child Development*, 78(2), 681–701.
- Denton, K., & West, J. (2002). *Children's reading and mathematics achievement in kindergarten and first grade* (NCES 2002-125). Washington, DC: U.S. Government Printing Office.
- Fantuzzo, J., & McWayne, C. (2002). The relationship between peer-play interactions in the family context and dimensions of school readiness for low-income preschool children. *Journal of Educational Psychology*, 94(1), 79–87.
- Henderson, A., & Mapp, K. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement*. Austin, TX: SEDL.
- Lin, Q. (2003). Beginning school ready to learn: Understanding racial-ethnic and income differences in parent involvement and first-time kindergartners' academic performance. *Dissertation Abstracts International*, 64(2), 391A. (UMI No. 3080435)
- Lopez, G., Scribner, J., & Mahitivanichcha, K. (2001) Redefining parental involvement: Lessons from high-performing migrant-impacted schools. *American Educational Research Journal*, 38(2), 253–288.
- Nebraska Department of Education. (2010). *Nebraska State Reading Assessment (NeSA)*. Retrieved from <http://www.education.ne.gov/assessment/Index.html>
- Snow, C. E., Burns, M. S., & Griffin, P. (Eds.). (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- St. Clair, L., & Jackson, B. (2006). Effect of family involvement training on the language skills of young elementary children from migrant families. *School Community Journal*, 16(1), 31–42. Retrieved from <http://www.schoolcommunitynetwork.org/SCJ.aspx>
- Wechsler, D. (1991). *Wechsler Intelligence Scale for Children-Third Edition*. San Antonio, TX: Psychological Corporation.
- Woodcock, R., & Muñoz-Sandoval, A. (2001). *Woodcock-Muñoz Language Survey Normative Update, English and Spanish Forms*. Itasca, IL: Riverside Publishing.

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