Effect of Family Involvement Training on the Language Skills of Young Elementary Children from Migrant Families

Lisa St. Clair and Barbara Jackson

Abstract

This quasi-experimental study (based on parent self-selection) examines the effects of a parent involvement program on kindergarten children's English language skills. This program was implemented as one component of a Migrant Even Start Family Literacy Program. The study was conducted at a rural Midwestern elementary school with 14 kindergarten children of families participating in the parent involvement training program, and 15 kindergarten children from families not participating. This study followed these children through the end of first grade. Findings indicate 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. This suggests that equipping migrant families with new abilities to nurture their children's language skills leads to positive language outcomes for their children.

Key Words: parent involvement, race and ethnicity, migrant, early childhood education, family literacy

Introduction

Growing numbers of federal initiatives such as Reading First, Early Reading First, and No Child Left Behind signal 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 is 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 white, English-speaking students to be below grade level in reading (Snow, Burns, & Griffin, 1998). Targeting this population of ELL children at a young age is crucial, as poor school performance in first grade is a significant predictor of students who will later drop out of school (Alexander, Entwisle, & Kabbani, 2001).

The question becomes, "what strategies might help ameliorate these negative effects?" Preliminary studies have identified that building bridges between home and school (Nathenson-Mejia, 1994) and providing literacy-rich home environments (Denton & West, 2002) are essential to positive outcomes of children. 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). Specifically, parent involvement positively influences academic achievement (McNeal, 1999), as well as social-emotional competence (Fantuzzo & McWayne, 2002). In the Third National Even Start Evaluation, St. Pierre et al. (2003) found that parents who more fully participated in parenting education had children who scored more positively on literacy measures. More information is needed to examine how specific parent education curricula are related to kindergarten children's early literacy development, especially for those from migrant backgrounds.

Purpose and Research Questions

This two-year study 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. To measure the impact, approximately half of the sample were children drawn from families participating in the family involvement training, and the other half were children with matched demographics from families not participating in the program. Families were provided training and support during the children's kindergarten year.

Two research questions guided the study: First, does the integration of the kindergarten educational curriculum into a MEES parent education program positively impact the children's language skills through first grade? Second, what is the relationship of the intensity of the family's participation in the training to the children's language outcomes?

Method

Participants

	Male Children	Female Children
Intervention	5	9
Control	7	8
Total	12	17

Families for this study were recruited from a MEES Family Literacy program in the Midwest. The school district where the program is located has experienced a dramatic increase from 2.6% to 29% ELL students between 1994-2004. In the first year of the study, 14 families participated in the family involvement training program, and their 14 kindergarten children were assigned to the intervention group. Sixteen families were recruited to allow their children to serve in a control group, resulting in 16 ELL kindergarten children serving as the control group. One family recruited for the control group moved out of the area midway through the study, leaving 15 children in the control group. Females comprised 59% of the child sample and 64% of the parent participants. Most of the children and families were Hispanic (97%). One family was Vietnamese. All children spoke English with varying degrees of fluency. All adult participants were parents of the children in the study. In the second year, the study followed these same children through first grade, except for four children and their families who had moved out of the area.

Procedures

Design

This study utilized a quasi-experimental research design as parents self-selected whether or not to participate in the MEES family involvement training program. 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. 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

The Woodcock-Muñoz Language Survey (WMLS) measures 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 5- to 7-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 the conclusion of the kindergarten year, each family's participation in the intervention was evaluated by their instructor on a 4-item assessment scale (rated on a 3-point Likert scale with 3 being high). This scale rated attendance, the quality of the parents' participation in the family involvement training offerings, and estimations of the application of language and literacy practices at home. Information on the family's application of language and literacy

practices at home was based on reports of home visitors from the Migrant Even Start Family Literacy program, who possessed insight into the family's routine practices in the home environment.

Results

At the beginning of the 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 study initiation. 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

At the end of the first year of the study, 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.

Table 1. Descriptive Data (First Grade Cohort 2004-2005)

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Picture Vocabulary	Control	14	14.21	15.78	4.22	5.10	23.32
	Intervention	12	17.25	12.55	3.62	9.28	25.22
	Total	26	15.62	14.18	2.78	9.89	21.34
Verbal Reasoning	Control	11	-6.91	7.06	2.13	-11.65	-2.16
	Intervention	6	5.00	11.70	4.77	-7.27	17.27
	Total	17	-2.71	10.41	2.52	-8.06	2.65
Letter-Word Identification	Control	14	1.57	8.66	2.32	-3.43	6.57
	Intervention	12	11.08	7.99	2.31	6.00	16.16
	Total	26	5.96	9.51	1.87	2.12	9.80
Writing	Control	14	-15.50	14.48	3.87	-23.86	-7.14
	Intervention	12	-2.67	13.38	3.86	-11.17	5.83
	Total	26	-9.58	15.18	2.98	-15.71	-3.45
Broad Score	Control	14	-2.86	9.53	2.55	-8.36	2.64
	Intervention	12	6.83	5.37	1.55	3.42	10.25
	Total	26	1.62	9.17	1.80	-2.09	5.32

These children were assessed again using the WMLS at the end of first grade. Using analysis of variance (ANOVA), children's gain 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, as well as every sub-test component (see Table 1). First grade children in the intervention group made significantly greater gains than the control group on verbal reasoning, letter and word identification, writing, and overall broad scores compared to the control group (see Table 2). There was no significant difference between the two groups on the picture vocabulary sub-test, on which both groups made substantial gains.

Table 2. *ANOVA* of WMLS Standard Score Gains (Fall 2003 to Spring 2005)

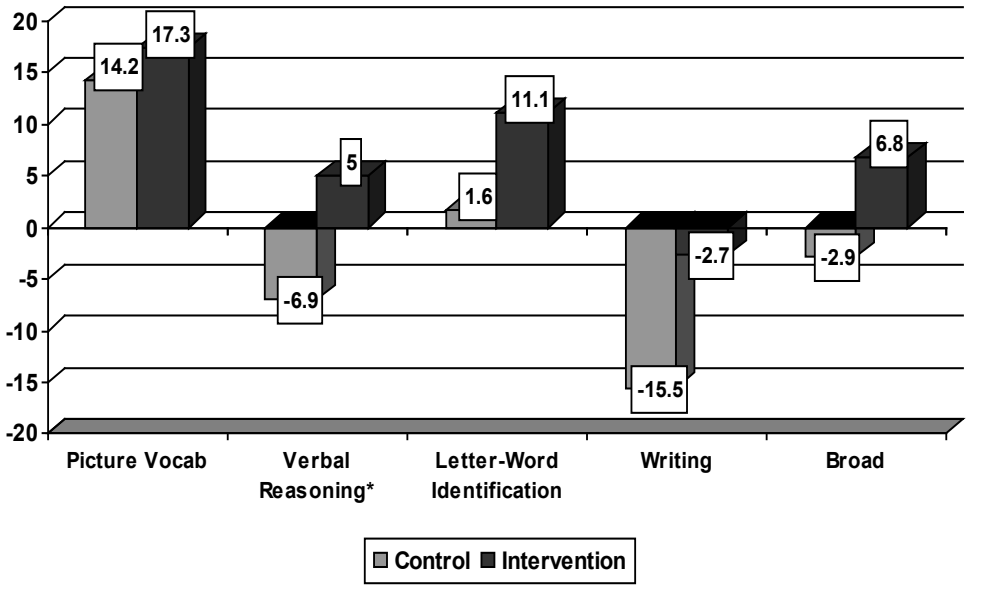
		Sum of Squares	df	Mean Square	F	Sig.
Picture Vocabulary	Between Groups	59.547	1	59.547	.288	.597
	Within Groups	4968.607	24	207.025		
	Total	5028.154	25			
Verbal Reasoning	Between Groups	550.620	1	550.620	6.982	.018*
	Within Groups	1182.909	15	78.861		
	Total	1733.529	16			
Letter-Word Identification	Between Groups	584.616	1	584.616	8.360	.008**
	Within Groups	1678.345	24	69.931		
	Total	2262.962	25			
Writing	Between Groups	1064.179	1	1064.179	5.439	.028*
	Within Groups	4696.167	24	195.674		
	Total	5760.346	25			
Broad Score	Between Groups	606.773	1	606.773	9.725	.005**
	Within Groups	1497.381	24	62.391		
	Total	2104.154	25			

Note: Two-tailed analysis was used.
*p <.05. **p < .01.

Children of families participating in the training clearly made greater standard score gains in language over the course of the two-year study than did children in the control group (see Figure 1). Both groups made sizable gains in the area of picture vocabulary, indicating that the children's experiences equally strengthened both group's ability to name objects in English. Children in the control group experienced losses on standard scores in verbal reasoning, writing, and on overall broad scores. Conversely, children in the intervention group made significant standard score gains in verbal reasoning, letter-word identification, and on overall broad scores. Both groups experienced standard score losses in writing; however, children in the intervention group experienced

a significantly smaller loss than children in the control group. This suggests that children in both groups were not keeping up with the children included in the normative group of the WMLS in writing ability. Follow-up discussions with teachers of these students revealed that pull-out ELL services in the school setting often take place during "writing time" in the classroom, suggesting that many of these ELL children are missing direct instruction in writing on a fairly regular basis.

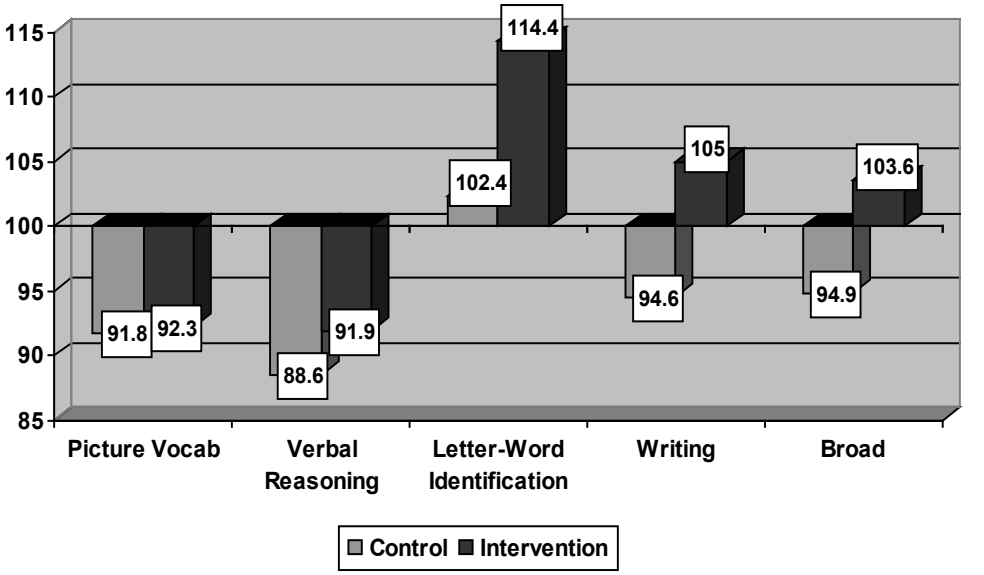
Figure 1. Comparison of WMLS Standard Score Gains for First Grade (Fall 2003 to Spring 2005)



Note: Six intervention participants and 11 control participants had both pre- and post-WMLS scores in verbal reasoning.

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 (see Figure 2). On the overall broad English score, children whose families participated in the training achieved a mean standard score of 104 by the end of first grade, whereas children whose families did not participate scored a mean of 95. The mean standard score on letter-word identification for children in the intervention group nearly crossed the threshold to an above average rating (114.4); however, children in the control group remained close to the mean normative rating.

Figure 2. Spring 2005 WMLS Standard Scores at End of First Grade



The second area of greatest discrepancy between the two groups was writing. Children in the intervention group earned a mean standard score of 105 and children in the control group had a mean of 95. Mean standard scores in the areas of picture vocabulary and verbal reasoning were more positive for children in the intervention group than for those in the control group; however, both groups experienced a mean standard score of less than 100.

Ratings of Parent Participation

To further examine the impact of the family involvement training program, parents' attendance was recorded (number of sessions attended) and all 14 parents in the intervention group were rated by the instructor using a 3-point Likert scale with 3 being high. Again, this scale rated attendance, the quality of the parents' participation in the family involvement training offerings, and estimations of the application of language and literacy practices at home. The majority of these families (71%) were represented in training by one parent only; for the remainder both parents participated in training. Parents typically participated in just over half of the 25 offerings (mean of 14 days).

Parent scores were determined by adding the number of days attended and scores on each of the three items. Parent scores ranged from 13 to 32. As a group, parents were rated most positively on involvement at school, with a mean of 2 on the 3-point scale with 3 being high, and 36% of the families rated as having "high" participations in the schools. Conversely, these families were rated lowest on engaging in literacy activities with their child at home

(mean of 1.2). The rubric for "low" on this item was 0-1 hours per week. Families were rated at 1.9 for the quality, or activity, of their participation in the parent involvement class, such as joining in discussions, sharing ideas, and engaging in activities.

In order to compare child outcomes on the basis of whether parents were considered high or low on participation overall, families were separated into two equal groups. Based on their composite score, parents were assigned to either the low participation group (7 parents) or the high participation group (7 parents). Did parents in the high participation group have children who experienced significantly greater outcomes on the WMLS overall Broad English standard scores? Using both analysis of variance to compare the groups and Pearson correlation to compare the relationship of parent score to child overall gain score, the results were not significant.

Discussion

Findings from this study can provide helpful guidance to practitioners interested in establishing family involvement programs. Ongoing communication between the parent educators and classroom teachers is essential to shape the parent education curriculum. Classroom teachers appreciated the opportunity to engage in this triadic approach (teacher-family-parent educator) to support family involvement. Positive effects of such an intervention, however, 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. Further research is needed to explain why there were delayed effects for these children.

Educators often report difficulty engaging minority parents in school offerings (National Center for Education Statistics, 1998). Family participation in this project was relatively high, with families participating in over half of the offered sessions on average. In part, this success may be attributed to the fact that the family involvement program was paired with an adult literacy program. Schools may want to consider ways to partner with adult education programs in their communities to replicate this program. Linking schools and community resources, such as adult education programs or existing parenting programs, 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.

Greatest gains were made in the area of word and letter recognition. A retrospective review of the curriculum, the technology aids, and the supporting materials found a strong content emphasis in this area of effect. Future parent education offerings need expanded literacy content with emphases on such concepts as fostering verbal reasoning and enhancing children's writing (using writing tools, letter formation, and word formation) to further the impact of the intervention. Parents reported that siblings also enjoyed using the learning aids. Future research needs to evaluate if family participation generates secondary benefits for the other children in the family.

As school districts seek to meet the expectations of No Child Left Behind and other federal initiatives, 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 regarding 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.

Denton, K., & West, J. (2002). *Children's reading and mathematics achievement in kindergarten and first grade*. (U.S. Department of Education, 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: Southwest Educational Development Laboratory.

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)

McNeal, R. B., Jr. (1999). Parental involvement as social capital. Differential effectiveness on science achievement, truancy, and dropping out. *Social Forces, 78*(1), 117-144.

National Center for Education Statistics. (1998). *Parent involvement in children's education: Efforts by public elementary schools*. Retrieved May 5, 2005 from http://nces.ed.gov/surveys/frss/publications/98032/8.asp

Nathenson-Mejia, S. (1994). Bridges between home and school: Literacy building activities for non-native English speaking homes. *Journal of Educational Issues of Language Minority Students, 14*, 149-164.

Snow, C. E., Burns, M. S., & Griffin, P. (Eds.). (1998). *Preventing reading difficulties in young children*. National Research Council. Washington, DC: National Academy Press.

St. Pierre, R., Ricciuti, A., Tao, F., Creps, C., Swartz, J., Lee, W., et al. (2003). *Third national Even Start evaluation: Program impacts and implications for improvement.* Washington, DC: U.S. Department of Education. (ERIC Document Reproduction Service No. 475 962)

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.

Lisa St. Clair is a program evaluator with Munroe-Meyer Institute at University of Nebraska Medical Center. She conducts program evaluation with statewide and local projects including 21st Century Community Learning Centers, Even Start Family Literacy Programs, Migrant Even Start Family Literacy Programs, Early Head Start, and other foundations and agencies. Correspondence concerning this article should be addressed to Lisa St. Clair at Munroe-Meyer Institute, University of Nebraska Medical Center, 985450 Nebraska Medical Center, Omaha, NE, 68198-5450, or e-mail Lstclair@unmc.edu.

Barbara Jackson is an associate professor of pediatrics at University of Nebraska Medical Center and director of the Department of Education with Munroe-Meyer Institute. She has studied the impact of in-service training on young children's literacy skills, longitudinal outcomes of infants with a neonatal intensive care experience, and coping skills of hospitalized young children during invasive procedures.

Author's Note:

This research is supported by grant 5 T73 MC 00023-13 0 from the Maternal and Child Bureau, Health Resources Services Administration, Department of Health and Human Services, grant 90DD0533 from the Administration on Developmental Disabilities (ADD), Administration for Children and Families, and grant S214A040010 from the Migrant Education Even Start Family Literacy program in Crete, Nebraska.