

Parents as Classroom Volunteers and Kindergarten Students' Emergent Reading Skills

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ABSTRACT The authors used teacher action research with the design experiment (A. Brown, 1992) to investigate the effects of working with parents in small groups on kindergarten children's emergent literacy performance. The authors randomly assigned 56 children enrolled in the morning and afternoon sessions of the first author's kindergarten class in a rural public school in central Pennsylvania to either the treatment (parent input) or the comparison (no parent input) condition during small-group language enrichment. The authors made pre- and posttreatment assessments on the children's emergent literacy. The authors also interviewed the children for their reactions to having parents in their classroom. Eighteen parents (15 mothers and 3 fathers) who served to a varying extent as classroom volunteers over 5 months, and other parents who returned questionnaire surveys but did not volunteer in the classroom, also were participants. Results indicated that children in general had positive perceptions of parents' presence in the classroom and that children in the treatment group outperformed comparison-group children on posttreatment measures of word, but not letter, recognition. On the basis of parent self-reports, results also indicated that parents' current reading practices with their children—but not parents' early literacy experiences from their own childhoods—were associated positively and significantly with extent of their classroom volunteer participation. Recommendations for working with parents in the classroom are proffered on the basis of these direct experiences.

Key words: emergent reading skills, kindergarten students, parents as classroom volunteers, teacher action research

Considerable research indicates that parent involvement in education is an important component in school success and is correlated with increased attendance and achievement and fewer behavioral problems (e.g., Booth & Dunn, 1996; Epstein, 1992; Henderson & Berla, 1994; Lopez & Scribner, 1999; Rogala, 2001; Sheldon, Clark, & Williams, 2001). Accordingly, efforts by educators to increase parent involvement and participation from families have increased. That trend accords with the eighth National Education Goal in which schools are expected to "promote partnerships that will increase parental involvement and

participation in promoting the social, emotional, and academic growth of children" (National Education Goals Panel, 1994, p. 11).

Although families may encourage and be supportive of their children's education, many parents are not able or likely to become actively involved in their children's school careers. Variation in participation (as opposed to involvement) has been attributed to the perceptions and expectations of parents' role concerning their children's education (Hoover-Dempsey & Jones, 1998). Research indicates that certain groups of parents are less likely to participate (e.g., attend school events, volunteer in the classroom, participate in a parent education program). For instance, Griffith (1996) reported lower parent participation in school activities, including serving as classroom volunteers, in families with the following characteristics: ethnic minority (e.g., Hispanic, African American, and Asian American); low socioeconomic status (i.e., low parent educational, income, and/or occupational levels); and special child or circumstance (e.g., having children in special education classes or in English-as-a-second-language programs). Barriers to participation include less money to pay for transportation or childcare as well as inflexible work schedules and lack of paid leave (Heymann & Earle, 2000).

Schools can make a difference in parents' expectations and perceived roles vis-à-vis the education system. Policies and practices that promote openness and communication between parents and teachers are necessary for building trust and shared orientations that can elevate parent interest in children's learning at home and at school, leading to better scholastic achievement (Trumbull, Díaz-Meza, Hasan, & Rothstein-Fisch, 2001). School-family teamwork and collaboration are more likely to produce positive results than are school systems and families working independently (Mapp, 2002).

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An important impetus for cooperation is the considerable research evidence indicating that a high level of parent involvement has a direct impact on student achievement (e.g., Rosenthal, 1996). Studies done by the National Center for Education Statistics have shown that parent involvement in the classroom is linked positively to measures of children's school learning outcomes, including whether students have to repeat a grade (U.S. Department of Education, 1997). At the present time, considerable attention focuses on school readiness and early literacy. Research has shown that families who form partnerships with schools are more likely to make positive contributions to their children's early language and literacy development (Snow, Barnes, Chandler, Goodman, & Hemphill, 1991). Accordingly, schools have been urged to encourage families to form partnerships that involve various kinds of parent involvement (Epstein, 2001).

School encouragement leads to greater parent involvement, which can take a variety of forms, such as participation in decision-making activities, classroom volunteerism, and helping children with homework (U.S. Department of Education, 1998). Numerous typologies exist that identify sundry ways in which parents are involved in education. Lopez and Scribner (1999) reviewed the extant parent involvement literature that critically discusses 12 well-known classification systems and argues for a broader conception of possible forms of parent, family, and extended kin participation. They noted evidence for a keen interest displayed by minority parents in their children's school affairs, which contradicts literature that has presented a negative stereotype by underestimating minority parents' commitment.

Empirical research on parents' involvement as classroom volunteers has been sparse, even though this form of participation has been widely recognized. For instance, in the aforementioned review by Lopez and Scribner (1999), 11 of 12 typologies listed parent participation in the classroom as a separate category. Epstein (1992) included that form of parent involvement under "volunteers and audiences at school." Furthermore, professional organizations have noted the significance of parents in the classrooms. A recent position paper by the Association for Childhood Education International (Moyer, 2001) asserted that program support is required for a child-centered kindergarten. One way that parents show support is by volunteering in the classroom. An important way that educators can build public support for a kindergarten community is to invite parents to regularly visit the classroom or to visit once or occasionally with something in particular to share with the teacher and children (Logan, 1998).

Quality, not just quantity, of parent participation in the classroom is obviously an issue. According to a nationwide survey conducted by the National Center for Education Statistics, over 39% of all K-8 schools provided some training for classroom volunteers, either at the school or through the district. Fifty-one percent of those schools indicated that they were satisfied with parents' response to the opportuni-

ty for that form of parent participation. Schools in cities, in large districts, and with more minority students than other schools were more likely to have training for classroom volunteers (U.S. Department of Education, 1998).

In the present study, our primary purpose was to investigate the influence of parent classroom volunteers on kindergarten children's early literacy learning. Additional aims included assessing correlates of parent participation as classroom volunteers and exploring children's reactions to having parents in the classroom. This study was motivated in part by a strong belief that teacher action research is a very important kind of education research that is especially valuable for demonstrating and evaluating classroom practices and linking theory and research to practice. The chief investigator (C. L. Porter DeCusati) is the practicing head kindergarten teacher in the classroom in which the study was conducted. We have been convinced of the importance of involving parents, a long-standing belief compatible with the social-ecological theoretical framework that guided this investigation (Comer & Haynes, 1991).

According to the social-ecological theoretical framework, teaching and learning must be perceived as operating in a complex social context in which relationships are of paramount importance. Parents and teacher together define a dynamic and interactive social system that affects children's attitudes, behaviors, and achievement. Teacher-parent and parent-parent communication can be viewed as a means in which teachers and parents can build "social capital" to support student learning and educational success (Coleman, 1987).

Even without finding previous empirical research showing the effects of classroom volunteers on children's learning, we felt comfortable hypothesizing that having parents in this role would relate positively and significantly to children's performance on learning indicators. Logically, one reason that parent volunteers are important seems clear; they relate to adult-child ratios. Even though many professional organization and state recommendations agree that children, especially in the lower primary grades, need a teacher-student ratio below 1:24 to achieve optimal social, emotional, and cognitive development, this ratio is not the reality in most primary school classrooms. When parents serve as classroom volunteers, taking an active role in the education of their own and other children, adult-child ratios improve greatly and children can receive much more individual attention.

Not only is the amount of individual attention increased when parents volunteer but also children are likely to receive much more encouragement. Children's classroom efforts can be validated by adults other than their teacher or their own parents. Children benefit when parents sit with children, listen to their stories, or otherwise help them with reading-related or other activities. Besides the help that teachers receive, parents also benefit by learning more about the classroom and the process of education. Ideas learned from teachers can inform lessons that parents teach

as classroom volunteers in school. Classroom volunteering also enables parents to better review or teach skills and concepts with their own children at home.

Method

We used teacher action research with the "design experiment" approach (Brown, 1992) to investigate the relation of parents' classroom participation with kindergartners' academic progress, specifically, emergent literacy indicators. We also examined personal and demographic characteristics of parent participants in connection with their involvement in the classroom. Children's feelings about parents in the classroom were also explored through teacher-led interviews. Finally, information about factors that seem to affect parental participation was gathered from classroom and parent workshop observations and informal discussions with parents.

We investigated the following three hypotheses:

1. Parent involvement in the classroom is positively and significantly related to emergent reading skills in kindergartners.
2. Parents' early literary experiences remembered from their own childhood and their current reading practices with their own children, are related positively to the degree to which parents volunteer in the classroom.
3. Children have positive attitudes about having parents in their classroom.

We also explored factors that might affect parent participation in the classroom to offer some recommendations for how to encourage parents to be classroom volunteers.

Participants

Eighteen parents and 56 kindergartners ranging from 5 to 6 years of age participated in this study, with their teacher (first author) as researcher. The classroom, situated in a geographically rural area, is in a public school district in central Pennsylvania. Participants were from middle- and lower middle-income families with an average of two siblings per household. Eighty-two percent of the households were two-parent families; 70% of the total family population had dual incomes; and 85% of the classroom volunteers maintained an income-producing job inside or outside the home. Although the parent sample was homogenous with respect to ethnicity, there was variation in educational and occupational background. About 75% of the 18 parent classroom volunteers and about 75% of the families of the 56 children in this study were middle class; the remainder were working class, as estimated with the Hollingshead (1975) Four Factor Index of Social Status.

The 18 parents who participated in this study included 15 mothers and 3 fathers. All volunteers were required to have a TB test and background check as a requisite for working directly with the children in the classroom. The volunteers worked for several months (October to February), with 1 or

2 parents usually present in the classroom on 1 or 2 days during the typical week in the morning and afternoon sessions. Parents spent from 1 to 2 hr in the classroom per visit. The parents did varied activities but performed specific duties in a fairly uniform fashion corresponding to their research-group membership when they were at the writing tables.

Nine boys and 19 girls were enrolled in the morning session of kindergarten, and 15 boys and 13 girls were in the afternoon session. Both sessions were 2½ hr and had the same teacher, environment, materials, and curriculum. Children were randomly assigned to seating (related to research-group membership) within the classroom before the first day of class—their name tags were placed on one of four round tables. Assignment of children at tables was not based on gender; no attempt was made to have an equal number of boys and girls assigned to the four tables. The gender imbalance in seating assignments that occurred in the morning reflected the disproportionate number of girls in this classroom session.

Research Groups

A parent-enriched reading group included 27 children sitting in the classroom at Tables 1 and 2 from both morning and afternoon sessions. In the morning session, 7 parents participated by helping 2 boys and 12 girls; in the afternoon session, 11 parents worked with 6 boys and 7 girls. The children were selected at random, with no attention given to their ability or behavior. They had the opportunity to interact with parents (either their own or other children's parents) to promote reading skills through activities such as writing in journals, reading books, and doing projects.

A comparison students-only reading group consisted of 29 children sitting in the classroom at Tables 3 and 4 from the morning session (7 boys and 7 girls) and from the afternoon session (9 boys and 6 girls). The children did not receive parent input but did receive teacher input in their reading-related activities. One child in the morning classroom was moved the first week of school from the experimental group (Table 2) to the comparison group (Table 3). Because of the child's hearing impairment, she needed to sit at a table near the blackboard to hear and see the teacher more easily for processing general directions. The child possessed a moderate-to-severe range hearing loss and was assisted by a full-time aid. We decided to exclude this child from the analysis because she received additional assistance. No other changes were made between groups over the entire course of the study.

Parent workshop. All parents were given advanced written notice of parent workshops planned for early in the school year and were encouraged to attend and become parent volunteers. Interested parents could choose one of the three scheduled meeting times in late September and early October, selecting the time that best suited their schedule. Workshops were designed to familiarize parents with reading-related games, reading strategies, and activities for children

(individually and in small groups), as well as to teach parents about the schedule, procedures, and other pertinent information that would help them manage successfully in the classroom environment.

The workshops helped to establish consistency across parents in their use of reading strategies, alphabet sounds, and classroom procedures, including referring to a chart that listed the children in small groups, along with an indication of the skills that needed to be addressed for each child through specific activities. For example, parents were taught how to "sound-spell" with children during journal writing time and were showed methods to help children recognize letter names and sounds. Overall, clarity about classroom routine was emphasized to facilitate children's learning in the presence of several adults; the intent was to enable the classroom to function smoothly.

Parents' roles in the classroom. Parents knew that they should pronounce slowly any word that children needed to master, with special emphasis on initial consonant sounds. Parents helped children form alphabet letters properly as the children composed words to match picture drawings. As parents dialogued with children to encourage the expression of complete thoughts, they facilitated children's efforts to put the right number of lines on the paper to correspond with the number of words in the sentence (only if requested by the child).

Parents also helped children refer to individual charts in the front of their journals as well as to read large charts in the reading area. Parents taught the alphabet song as children pointed to each box on an alphabet chart for 1:1 correspondence, and the parents helped when children tried to locate or use specific alphabet letters. Parents also used those teaching strategies as children created writing projects and books in response to content modeled in lessons and in examples practiced in large groups.

Parents and the treatment conditions. Parents were instructed to limit their involvement with children to Tables 1 and 2. Parents did not have to let the teacher know in advance the days on which they would volunteer. That open-door policy enabled parents to visit the classroom more often, as either a planned or spur-of-the-moment visit, and was implemented as a concession to their busy and, probably at times, unpredictable schedules.

When parent volunteers arrived in the classroom, they referred to a chart listing individual students and small groups with whom to work in connection with specific activities to improve reading for certain skills (e.g., sight words, initial consonants, directionality, short vowel sounds, letter names, letter-sound recognition). Parents never assisted children seated at Tables 3 and 4 for reading-related activities, but they did help all children with mathematics and science or other hands-on activities. In other words, parent volunteers, although not having their own children assigned to them for reading activities at the tables, did have many other opportunities to interact with them. They also were permitted to be with their own children during the class meeting

and structured center time (see Vignette 2 in the section titled "Illustrative Examples of Parents as Classroom Volunteers"), recess, snack time, and so forth.

Reading-related activities. Reading-related activities and materials used in this study included Letter Bingo, word/picture card matching, letter and word categorizing games, Big Books, and other books, letter and word puzzles, semantic webbing maps, charts as well as alphabet flip charts, student art projects (with corresponding writing and reading activities), and individual student journals (for reading and writing skill development). Parents carried out the activities as discussed in the workshops. They also worked concurrently with the teacher on the same tasks with the children, except at different tables. As best I could observe, parents, when teaching, did not depart from how they were instructed to interact with the children.

Index of parent involvement. The amount of time spent in the classroom by parents was coded with numerical values from 0 to 5: 0 = *no time spent in the classroom*, 1 = *one occasion*, 2 = *once/every other month*, 3 = *once/month*, 4 = *two times/month*, and 5 = *regular involvement of three times/month or more*. For analyses relating to Hypothesis 2, the numerical value of 0 was defined as *no time*, numerical values of 1 and 2 were combined as *low*, 3 and 4 were clustered for *medium*, and 5 was defined as *high parent involvement*.

Instruments

In this study, considered to be related to the design experiment (Brown, 1992), we used quantitative and qualitative data gathering and analysis techniques to obtain information relevant to causal hypothesis testing in a field setting, such as the classroom (i.e., nonexperimental action research setting; see Brown). We applied quantitative methods to responses to parent questionnaires and to student interviews and to child responses to a researcher-developed pretest and posttest measure for upper and lower case letter recognition, as well as to child responses to a norm-referenced standardized test for emergent sight-word vocabulary (Wright Group, 1996). Qualitative methods included observations and field notes of parents' behaviors in the classroom and at workshops, records of informal discussions with parents, and maintaining documents and photographs related to the project for analysis and interpretation.

Parent questionnaires. Informed consent was obtained from the parents before they participated in the study. Parents were mailed a cover letter briefly explaining the study, along with a parent questionnaire with items requesting information about parent demographic characteristics (i.e., demographics for type of employment, educational background, and marital status—single or two-parent family). The questionnaire also included items that sought information about antecedents of reading practices, as well as current parent involvement practices (see Appendix A). The parent questionnaire was devised especially for this study

and was developed through a process of careful reflection and consultation with a clinical psychologist (D. Person, personal communication, August, 1998). More parents ($n = 44$) returned the materials than the number that volunteered in the classroom; the 18 parents who volunteered returned the forms and questionnaires.

Responses of parents who volunteered and parents who did not were compared to determine whether the two groups differed with respect to demographics, personal historical antecedents, and present-day reading-related practices in the home. Correlations were computed among the antecedent variables, the variables of parent involvement in the classroom, and the reading scores of the kindergarten children.

Index of current practices. Current parent reading practices were assigned values of 1, 2, 3, or 4 according to the amount of time they reported spending with their child at home on reading and on the extent of engagement in reading-related activities outside the classroom. The current antecedents included the following: (a) reasons for working (or not working) with children in the classroom, (b) frequency of library visits, (c) amount of time spent being read to by (or with) the parent's child. A rating of 0, 1, 2, 3, and 4 also was given for the value that parents attributed to these three reading-related activities at home. In each case, a rating of 4 indicated high value given to reading practices, whereas a rating of 0 reflected no value given to current reading practices.

Index of historical antecedents. Personal historical antecedent variables included parents' self-reports on the following: (a) amount of time the parents' parent(s) spent reading to them as children and (b) amount of enjoyment parents felt reading as children. We performed analyses to determine whether there were significant correlations between the two historical and three current predictor variables and the amount of time that the parents spent in the classroom, as well as their correlations with the children's outcomes.

Student questionnaires. The teacher administered a seven-item questionnaire in class during center time in February to all 56 children to determine their perceptions and attitudes about parent involvement in the classroom. A 3-point Likert-type scale was used in which children could circle the face that corresponded to their feelings (sad face = 1, neutral face = 2, happy face = 3) that were elicited by the questions (see Appendix B). We designed the student questionnaire specifically for this study, and its format followed examples in the literature in which young children were respondents (e.g., Asher, Singleton, Tinsley, & Hymel, 1979). Trained classroom aides, blind to the study's hypotheses and the children's research-group membership, administered the student questionnaires. The questions clustered on the mediating variable of attitude toward parent involvement; we performed analyses to determine whether a significant correlation existed between these variables and word recognition scores on the posttest.

The student questionnaire addressed attitudes toward their parents' and other parents' involvement in the classroom so that comparisons could be made. Questions were short and were worded in a developmentally appropriate way; the response format (see previous paragraph) allowed for a clear interpretation of responses. Open-ended responses in the student questionnaire were coded such that they were clustered around the construct of altruism—neutral response, negative self- (own parent) statement, negative others' (other children's parents) statement, positive self-statement, and positive others' statement. Validity of replies to items of the questionnaire was helped by reading to the students, so responses were not confounded by lack of comprehension or reading ability, and students were prompted for their understanding of the items in the questionnaire.

Emergent-level word recognition assessment. The 25-item emergent-level sight-word vocabulary test was given to all students as parents pointed, one at a time, to large, bold-type words in a vertical list from an $8\frac{1}{2} \times 11$ -in chart to determine whether children could recognize the word without prompting. The same test format was repeated after 5 to 6 months to serve as the posttest for the sight-word vocabulary component of the reading test profile. Correct responses were recorded on a corresponding test data sheet.

Upper and lower case letter recognition assessment. A 5×7 in flip chart assessed recognition of upper and lower case letters for the pre- and posttest. The same upper and lower case letter was displayed on each page in the manuscript, with a corresponding picture that had the same beginning sound as the letter on the page. All test administrators were careful to progress from Z to A so as not to confound the results by preventing children from indicating that they recognized the letter, when they may only have been reciting the Alphabet Song. Testers were blind to the study's hypotheses and to children's research-group membership. The administrators used word and letter recognition tasks to estimate emergent reading skills in accord with the Writing Group Reading program (Wright Group, 1996) and the Metropolitan Readiness Test (Hildreth, Griffiths, & McGauvran, 1964) and because performance was readily quantifiable for comparison purposes.

Analyses

Hypothesis 1 posited that parent involvement in the classroom is positively associated with emergent reading skills. To test this hypothesis, we computed a 2×2 analysis of variance (ANOVA; Gender \times Research-Group Membership [Treatment/Comparison]) to evaluate the effects of these factors and their interaction on each of the pre- and post-treatment scores on the measures of emergent literacy (upper case letter recognition, lower case letter recognition, and word recognition). Hypothesis 2 posited that remembered early literary experiences from the parents' own childhood, and their current reading practices with their own children, are associated positively with the degree to

which parents are involved with reading-related activities in the classroom. We computed Pearson correlations to relate the degree of parent involvement with antecedent and current reading-related practices. Also, we correlated the above sets of variables to examine the degree of association within and between variable sets for antecedent and current practices. Hypothesis 3 posited that children express positive attitudes about having parents in their classroom. To evaluate that hypothesis, we computed descriptive statistics that summarized responses on the student questionnaire to evaluate children's attitudes toward their own and others' parents' reading-related support in the classroom.

Results

Preliminary analyses revealed that the scores on the three emergent literacy measures were not influenced significantly by the child's placement in the morning or in the afternoon session of kindergarten. Hence, session placement was not considered further in analyses or interpretation. Data were combined across session. Preliminary analyses also compared the scores of children whose parents participated as classroom volunteers with those of children whose parents did not participate. The analyses also yielded results that were not statistically significant (although volunteers' children scored higher on test measures). Findings pertinent

to the three hypotheses are reported first, followed by other results relevant to the aims of this investigation.

Parent Input and Children's Emergent Literacy

We performed a 2×2 factorial ANOVA to examine the effects of child gender and research-group membership on pre- and posttest scores for knowledge of upper and lower case letters and word recognition. Analyses revealed that research-group membership, but not child gender, significantly affected posttreatment emergent literacy scores for word but not letter recognition. Descriptive statistics (means and standard deviations) for the results are summarized in Tables 1, 2, and 3.

Table 1 shows the children's performances on the upper case letter recognition test as a function of child gender, research-group membership, and time of measurement.

Performances improved markedly from the first to the second time of testing, as we expected. On average, the children knew about 20 upper case letters at the start of the kindergarten year and gained knowledge of practically the entire alphabet by the second time of testing 5 to 6 months later. That improvement was not appreciably affected by child gender or research-group membership or their interaction.

Table 2 indicates the mean scores for lower case letter recognition as a function of the same variables and their

TABLE 1. Pre- and Posttreatment Mean Score Performance on Upper Case Letter Recognition

Gender	Pretreatment		Posttreatment	
	Experimental group	Control group	Experimental group	Control group
Boys				
<i>M</i>	21.00	20.18	26.0	25.09
<i>SD</i>	4.96	5.19	0.0	2.12
Girls				
<i>M</i>	20.73	18.57	25.8	25.29
<i>SD</i>	5.65	5.59	0.77	1.49

TABLE 2. Pre- and Posttreatment Mean Score Performance on Lower Case Letter Recognition

Gender	Pretreatment		Posttreatment	
	Experimental group	Control group	Experimental group	Control group
Boys				
<i>M</i>	21.00	18.91	26.0	24.55
<i>SD</i>	5.26	5.49	0.0	1.97
Girls				
<i>M</i>	18.4	17.14	25.73	24.0
<i>SD</i>	5.14	5.76	1.03	3.32

interaction. Again, the findings did not reveal a significant statistical effect of child gender or research-group membership or their interaction. Also, posttreatment scores were higher than pretreatment scores. Here, however, children recognized about one fewer letter at both times of measurement than they did on the test for upper case letter recognition, gaining knowledge of about 5 or 6 letters over several months.

Table 3 shows the children's performances on the word recognition test as a function of child gender, research-group membership, and time of measurement. Analysis indicated that the main effect of gender and the gender by research group interaction effect were not statistically significant, as was the case for upper and lower case letter recognition. There was a significant research-group membership main effect on word recognition posttreatment scores, $F(1, 51) = 4.48, p < .004$. Children in the parent-enriched reading groups outperformed comparison-group children on average by about four words on this index. Pretreatment word recognition mean scores for the two groups were only about two or three words, but rose to nine or more words at posttreatment measurement time several months later. Evidently, the children in general improved significantly throughout the study, but those in a parent-enriched reading group had a significant advantage with respect to word recognition.

Remembered and Present Reading Practices

We investigated the relationships between remembered experiences connected with early reading within parents' family of origin and the reported present practices connected with early reading within the family of offspring. The correlation analysis did not uncover significant findings at the .05 level of significance; however, one correlation was significant at the .10 level. Results showed that remembering being read to as a child was associated positively with the present enjoyment of reading to one's own child at home ($r = .44$).

We also wanted to determine whether either or both of the variables, remembered experiences and current practices, were related to parent involvement as a classroom vol-

unteer. Remembered reading experiences in family of origin was not related to parents' classroom volunteering; however, present family of offspring practices of reading to one's own child at home was correlated significantly with classroom volunteering ($r = .49$).

Children's Perceptions Concerning Parents in the Classroom

Boys and girls felt the same about parents in their classroom. Children in the parent-enriched reading groups whose own parents volunteered agreed unanimously that this made them feel happy. However, only 85% of the children in the comparison group whose parents volunteered said that this made them happy. Children were asked, in addition to how they felt when their parents volunteered, how they felt when their parents did not help them in the classroom. In the parent-enriched reading group, 81% reported feeling sad, as well as 54% in the comparison group.

Children whose parents did not volunteer seemed to understand why their parents were not classroom volunteers. When asked, they excused their parents by explaining that "she is home taking care of the baby," "she has an important job," "it's all right, my Dad has an important job." Children typically reported that what they liked best about parents in the classroom was that "they helped with journal writing." Many children simply said that they liked being helped, without giving a specific reason (e.g., help with mathematics work, journal writing). Most children (85%) said that having parents helped them pay attention and that having their own parent in class was not a distraction. Child interview responses did not correlate significantly with test scores.

Although this research is primarily quantitative in design and execution, the following vignettes are given to convey some of the flavor of how parents performed with the children.

Vignette No. 1

The day has begun and Mrs. Smith arrives and signs in the "Volunteer Calendar" by the line 9 a.m. Mrs. Smith is outgoing, has read to her child at home a great deal, and is very

TABLE 3. Pre- and Posttreatment Mean Score Performance on Word Recognition

Gender	Pretreatment		Posttreatment	
	Experimental group	Control group	Experimental group	Control group
Boys				
<i>M</i>	2.0	3.82	11.0	8.91
<i>SD</i>	6.18	6.46	7.4	7.7
Girls				
<i>M</i>	2.33	2.0	12.67	8.86
<i>SD</i>	2.13	.82	8.2	6.57

interested in helping as a classroom volunteer. This morning she finds the children sitting on the carpet in rows, and she slips in among them to hear the remainder of the story. She listens carefully to the discussion and then observes as the teacher models a format for writing. Some children demonstrate the format. Near the end of this lesson Mrs. Smith quietly leaves the group to get student journals from the box, opening each one to the next blank page. She stamps the date on the blank pages and gets the journals, writing utensils, and herself ready to greet the children who will be coming to their writing tables number one and two. The tables are round so Mrs. Smith can see all the children easily.

When the children are seated and begin to think about the sentences they will write Mrs. Smith listens and watches as they point to letters on the alphabet strip fastened to their desks. Children are finding letters to match the sounds they hear in their words. Billy does not show one-to-one correspondence so Mrs. Smith helps him by singing along with the children the Alphabet Song as they point to the letters. Mrs. Smith prompts the children regularly about their writing and when they begin to draw pictures related to their sentences she asks the children to tell her more about their pictures, helps them add details, making sure the pictures reflect the information in the writing.

Later on Mrs. Smith joined her daughter who was not assigned to her writing table. The two sat next to each other in the circle on the rug with mother listening to her daughter talk about her picture and writing in her journal. Often while volunteering Mrs. Smith shared experiences with her daughter, taking pride in seeing her try new things and make social and academic progress. Mrs. Smith also was able to assist many children who would otherwise go uncorrected when they matched the wrong letter to sounds, forgot about "finger space," or repeated incorrect writing patterns.

Vignette No. 2

When Mrs. Jones attended the parent workshop she said in the meeting that she wanted to be a classroom volunteer but that her schedule and lack of reliable transportation would prevent her regular participation. She also shared that she did not have a positive public school experience when a child and consequently feels some reluctance about getting involved. Nevertheless she wanted to give it a try and said that she was influenced by the workshop presentation and the photos on display which depicted scenes from previous years showing parents and children building puzzles together, matching word cards on charts, and using materials in the drama center. She said she thought to herself that maybe this is not so hard after all.

One afternoon Mrs. Jones began her volunteering by sitting with the children during a class meeting prior to center time. Both children and adults are invited to make choices for centers time activities and Mrs. Jones selected one for herself. Seeing a child named Susan alone in the center trying to read a Big Book, she walked over and helped her hold it. They discussed the pictures together and Mrs. Jones assisted Susan as she pointed to words on the page. She also helped Susan return the Big Book to its proper place in the classroom. As Susan began to read the Morning Letter, Mrs. Jones continued to help her by giving her immediate feedback and encouragement. Mrs. Jones soon felt an integral part of the program and often came to volunteer in the classroom, benefiting the children both during the writing tables activities as well as other times during the afternoon session.

We selected the two vignettes to typify contrasting parent profiles that suggest the range of parents who served as classroom volunteers. The volunteers varied with respect to a number of factors that included aptitude and background experience for working with young children, interest level, and situational constraints. "Mrs. Smith" was a college graduate who was comfortable in her role as a classroom volunteer, took the initiative from the beginning, and knew the routine well, and she illustrated sensitivity to her own child in this role. In contrast, "Mrs. Jones," a high school graduate, was initially hesitant about becoming a volunteer. Nevertheless, she performed splendidly by showing responsiveness and sensitivity to a child named "Susan." The vignettes exemplify parents' making choices within the structure of the classroom volunteer program. Although asked to follow a protocol, the volunteers had opportunities for decision making. Parents engaged in a host of varied scripted and spontaneous behaviors aimed at improving children's learning and well-being; parents and children seemed to become more adept at working with each other as the year progressed.

Discussion

Parents made a significant contribution in this study as evinced by the superior posttreatment performance of the experimental, parent-enriched reading-group children on word recognition, relative to the comparison-group children who did not have parents assigned to their tables. Random assignment of children to the research groups and the independent blind scoring of emergent literacy-task performances strengthened the internal validity of the results and claims about the directionality of effects. We realize, however, that using causal language to describe the findings is risky because the study is quasi-experimental; other uncontrolled variables may be implicated in the findings.

Nonetheless, our findings appear noteworthy because to date there does not seem to be empirical demonstration of the benefits of parent participation as classroom volunteers on children's learning. Thus, our study makes an empirical contribution to the parent involvement literature. Although more research is needed, the fact that parent classroom volunteering was linked positively with early reading development was congruent with our expectations.

Parents can serve as co-teachers by mediating young children's acquisition of literacy concepts, as indexed in this study by word recognition. Word recognition skills, unlike letter recognition skills, were sensitive to the manipulation that we used. It is noteworthy that children in the experimental group benefited even when their parents were not classroom volunteers. (The experimental children were not assigned to a table with their own parents.) We assume that word recognition as used in this study is an effective estimate of emergent-level literacy development. Further study that employs other indices of early literacy is needed. Certainly caution in generalizing our findings also is warranted

because of the limited number of participants and the fact that only one school site was used in this study.

Zullinger, Pan, Ryan, and Johnson (1986) also used a specific estimate of parent participation (although not extent of classroom volunteering as in the present study) and a specific estimate of early literacy (although not word recognition as in this study). Zullinger and colleagues reported that scores in language areas of the Metropolitan Readiness test earned by first graders at the beginning and end of their academic year were related significantly to parent participation in a teacher-initiated program that asked parents to physically enter the classroom to check out and take home books on display, to read to their child at home, and to attend monthly meetings. Careful counts on all three indices kept track of the extent of parent involvement over an 8-month period. Regression analyses revealed that scores in the language areas were predicted by parent participation, especially number of meetings attended. According to the study, learning about classroom goals and how to complement them at home seem to be important forms of parent involvement at the first-grade level.

Our results can be interpreted like those of Zullinger and colleagues (1986). Although not reaching an acceptable level of statistical significance ($p < .10$), children whose parents volunteered in the classroom were in general better students than were those students who did not participate. In addition, parents who volunteered more than other parents appeared to enjoy reading to their children at home, and also remembered being read to more at home with their parent when they were a child. That finding suggests that literacy in the home occurs in families across generations.

All the children in the experimental group whose parents were classroom volunteers said that they were happy about their parents coming into their classrooms. It is sensible that children aged 5 and 6 enjoy their parents at school. Even the comparison-group children whose parents volunteered responded positively at a high rate (85%). No doubt that result was caused by the fact that their parents could interact with them at all other times of the school day, save the small-group reading times. Correspondingly, those comparison-group children (54%) reported being less sad about their parents not being able to help them. The finding that experimental children (81%) were sadder because their parents could not help them may have resulted from negative feelings about other children's parents helping them, but not their own parents.

In addition to providing evidence for the benefits of parents as classroom volunteers for early literacy learning, this study illustrates the use and value of teacher action research. The design that we used is considered a variant of a design experiment (Brown, 1992) in that an attempt was made to engineer an innovative educational environment while concurrently seeking to evaluate the benefits in an experimental study of the innovations. The design involved orchestrating all aspects of one period of the day (reading group time), realizing that this one period is part of a systemic whole. Additional relevant factors included (a) ways in which the children and par-

ents functioned at other times of the day, (b) parent-teacher meetings, and (c) workshop training sessions designed to help parents prepare to be classroom volunteers.

The present teacher action research resulted in a fairly complex intervention study. Design experiments are ideally suited when tight control over all parameters are not expected or even sought; field studies, especially teacher action research, are disordered from a strict positivist view. Yet, through the use of converging measures over time, microgenetic observational studies of learning in classrooms hold a great deal of promise as a type of applied educational research. This study is labeled a "design experiment" (Brown, 1992) as well as teacher action research and, as such, contains qualitative and quantitative methods that involve the manipulations and measures described. The final goal, then, is to share some suggestions based on qualitative information—experiences of the teacher (C. L. Porter DeCusati) who conducted this study, especially as they relate to practice. The experiences were documented in field notes, photographs, and evaluation forms and stem from the first author's direct experiences interacting with the parents in informal conversations, parent-teacher conferences, and workshops. General observations of classroom proceedings that involved parents, and times with parents before and after class, also are a source of the experiences that lead to the recommendations given in the following section.

Practical Suggestions

This study is based on the knowledge acquired through multiple years of experience in a kindergarten setting. Classroom life is synergistic; all parts interrelate and connect with the whole in nontrivial ways. Classrooms must function smoothly before action research that one initiates to examine change can be expected to work. Accordingly, confidence in teaching and in one's classroom is viewed as a prerequisite to undertaking a study as reported here.

This teacher action research originated from the idea that parents as classroom volunteers are an important and relatively underappreciated and untapped resource for teachers and students. Parent classroom volunteers are the "unsung heroes" who extend the teacher's ability to help children more effectively build the foundations of reading and writing. Years of experience from a teacher's perspective of using parents in the classroom are the basis of this study's purpose, design, and hypotheses, along with the rationale built from reading the contemporary literature on parent involvement in education.

Respect and sensitivity are of paramount importance in recruiting participants; therefore, we used the open-door policy. After getting a TB test, parents could visit the classroom without any prior notice; they were always welcome. The idea behind the policy was that parents are busy people who may not always know ahead of time when they might be available to volunteer. We also provided multiple sign-up times for parent volunteer workshops to conform to the needs of parents.

School practices and policies must be family friendly to reduce logistical barriers that often exist (e.g., transportation problems, babysitting needs, scheduling conflicts).

Steps also can be taken to lessen or eliminate psychological barriers and thereby increase volunteerism. Recruitment efforts are enhanced if an atmosphere of acceptance is created in the classroom. Educators should keep in mind that some parents have had previous negative experiences with schools, as children or parents, and that there is a need to help them move beyond negative associations. Educators can help parents feel welcome at the workshops by providing light refreshments, including soft background music, and greeting them warmly and with a spirit of openness to their ideas. A few ice-breaking activities should be planned to help put the parents at ease. Educators should treat parents as co-teachers, encourage the discussion and use of their contributions to the curriculum and classroom life, and show a genuine interest in their ideas and suggestions.

Educators can encourage hesitant parents by placing around the workshop room photographs of past activities involving classroom volunteers and the children. Scenes from previous years help parents conceptualize the viability of their imitating them. Educators can make the workshop experience positive by keeping it small in numbers (which is feasible when there are several offered) and having genial discussions in which everyone can share their interests, hobbies, and backgrounds. Workshop announcements should be sent well in advance (2 weeks prior) and include a survey with items and questions that will foster thinking ahead of time about matters that will be discussed at the workshops (e.g., "If you could teach something or share something, what would it be?").

Once parents are in the classroom, it is important that the educator continues to exude respect and enthusiasm for their participation while encouraging risk taking and inviting parents to try new ideas. In addition, educators should provide classroom structure—regular feedback and information about the weekly calendar schedule reveal a "heads up" spirit to parents, and invite them to join in upcoming activities.

To summarize, although our study centered on language arts, teachers can integrate parent involvement in the classroom across the curriculum. Use of parents as volunteers is not limited to one discipline or to one grade level but can be adapted to all grades K–12, all subject matter, and programs or classrooms with emerging and integrated curriculum. Classrooms benefit from greater adult-child ratios as more opportunities are afforded for small-group instruction and tutorials that facilitate students' academic attainments. Teachers and parents can collaborate and communicate information about individual children that provides insight for improving learning opportunities. Finally, teachers can try to implement alternative models with more flexibility within the structure of a specific volunteer program, such as providing menu options for activities in which parents can engage with children at school.

Conclusions

Two distinct intentions have been served by this study. First, the research has made an empirical contribution. We found that kindergarten children within the same classroom who have regular opportunities to work with parents on literacy-related activities perform better on word recognition at the end of the year, compared with children assigned at random who do not work with parents on these activities. Because of the present focus on early reading, that finding is important and potentially useful. In addition, given the controls and careful procedures followed, we believe that that finding is an internally valid one, although further research should be done to determine whether the finding can be replicated or generalized to other kindergartens. (Other kindergartens include urban, as well as rural, classrooms with more diversity in students' backgrounds on the basis of income, ethnicity, special needs, etc.) Second, this study contributes to the literature by showing that it is possible to have more parents meaningfully involved in classroom activities. We hope that we have provided useful hints to help teachers create their own recipes for success connected with our eighth National Education Goal.

NOTE

This investigation was initiated by the first author, a classroom teacher with 8 years of experience, who conducted the study as part of a master's degree awarded by The Pennsylvania State University, in consultation with the thesis advisor (second author).

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APPENDIX A Parent Questionnaire

Note: When finished, please put this questionnaire in the envelope provided, seal it, and send it back to school with your child. Thank you!

Directions:

Circle the appropriate response for each question or statement or supply the answer. If no answers apply, circle "NA" where indicated below:

1. I work
Outside the home In the home
2. I am
Self-employed Not self-employed
3. My educational background is
High school 2-year vocational 4-year college Graduate studies Doctorate
4. I am
Single parent 2-parent family
5. My parent(s) read to me as a child
Never 1-3 times/week 4-7 times/week More than 7 times/week
6. I enjoyed reading as a child
Not at all 1-3 times/week 4-7 times/week More than 7 times/week
7. I now enjoy reading to my own child at home
Never 1-3 times/week 4-7 times/week More than 7 times/week
8. I now enjoy having my child look at books independently
Never 1-3 times/week 4-7 times/week More than 7 times/week
9. I now enjoy hearing my child tell me stories from books
Never 1-3 times/week 4-7 times/week More than 7 times/week
10. I now enjoy going to the library with my child
Never 2-3 times/months 1 time/month More than 1 time/month
11. If you have not come in to the class to work with children, the main reason is
Lack of vehicle Busy work schedule Busy at home No interest NA
12. If you have come in to the classroom to work with children, the main reason is
My child asked me to See how my child is doing Give individual attention

APPENDIX B
Student Questionnaire

Name _____

Table: 1 2 3 4

Table 1 & 2—if item A below is yes, do all items

Table 1 & 2—if item A below is no, skip items 1, 2, 4, & 7

Table 3 & 4—skip items 1, 4, 5, & 7

A: Own parent comes in: Yes No

B: Own parent works with child Yes No

1. How do you feel when **your** parent comes in?

Happy Face(depicted) Neutral Face(depicted) Sad Face(depicted)

Why? _____

2. How do you feel when your parent does not help **you** in the class?

Happy Face(depicted) Neutral Face(depicted) Sad Face(depicted)

Why? _____

3. How do you feel when **another** child's parent comes in the class to help?

Happy Face(depicted) Neutral Face(depicted) Sad Face(depicted)

4. What do you like best when **your** parent comes in to help?

5. Do you think you do **better** work when **another** child's parent helps you?

Better with a parent Better without a parent

6. Is it easier or harder to pay attention to your work when another child's parent is here?

Easier Harder

7. Is it easier or harder to pay attention to your work when your parent is here?

Easier Harder

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