

PARENT INVOLVEMENT IN THE  
COMPOSING PROCESSES OF KINDERGARTEN CHILDREN

By

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This study is dedicated to my daughters—Christy, Marie, and Emily—the most important part of my life.

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This study investigated the impact of a home composing curriculum on kindergarten children's concepts about print (a measure of reading readiness), writing fluency (the number of words children can write), and writing achievement. In addition, the study investigated gender differences on the above measures, types of writing done by children at home, and family members with whom children wrote.

A sample of 74 children was drawn from four kindergarten classes, two at a university laboratory school and two at a public school. Parents of children in the treatment group participated in a parent workshop and received a booklet which introduced the concept of writing with young children, the importance of writing, and the interrelationship between writing and reading. During the ten-week treatment period parents and children wrote together at home several times each week.

The home writing samples were brought to school for sharing time with other children in the treatment group.

Data were analyzed by analysis of covariance, using the Concepts about Print test as the covariate. This procedure was conducted for each of the five dependent variables: Concepts about Print posttest, writing fluency, and three writing achievement samples. The treatment group was found to be significantly higher on the Concepts about Print test, writing fluency, and the first posttest of writing achievement. There were no significant gender differences on any of the measures.

Data from parent response sheets indicated that these children wrote notes, letters, and lists more than other types of writing. They wrote with their mothers or alone more often than with other family members.

The findings of this study suggest that a flexible home composing curriculum, combined with the sharing of writing at school can have an impact on reading readiness, the number of words children can write, and possibly writing ability.

## CHAPTER I INTRODUCTION

Research in many fields of education has demonstrated the influence of the home environment in children's cognitive development (Durkin, 1966; Gordon, Greenwood, Ware, and Olmsted, 1974). For example, Gordon et al. (1974) stated that the home situation provided "a major source of a student's pattern of achievement, as well as his personality structure . . ." (p. 1). Olmsted (1980) reinforced this idea in concluding that parental teaching style combined with the home atmosphere had a decided impact on children's learning.

One area in which the out-of-school environment has been shown to be particularly influential is that of reading. Certain characteristics of the home have been found to be extremely important for reading development (Chomsky, 1971; Durkin, 1966), leading educators to encourage parental involvement in reading. In studying children who read before formal instruction, Clark (1976) and Durkin (1966) found that none of these children learned to read on their own. All had adults and/or older siblings who modeled reading and writing behaviors and responded to the children's interest in print by reading to them, providing writing materials, and answering questions. Thus, both Durkin and Clark concluded that the home environment was a crucial factor in the development of reading competence.

Recent ethnographic studies of parents and their children as they acquire literacy (Bissex, 1980b; Taylor, 1983) indicate that

parents' interactions with their children through writing, as well as through reading, help children become literate. These studies point out many ways in which writing fits naturally into family routines.

Few parent involvement programs in schools have focused on composing/writing:

Recommendations that parents provide reading materials, that they read to their children, and that they demonstrate a model of reading behavior are common. Perhaps corresponding recommendations about writing should also be given. Early exposure to and experience with writing as communication may facilitate interest in both writing and reading and may contribute to initial success in school. (Hall, Moretz, and Staton, 1976, p. 585)

It seems logical that the home environment may provide an appropriately subjective audience for beginning writers as well as beginning readers. Possible suggestions for parental activities would include interacting with children as they write (Dyson and Genishi, 1982), providing purposes for writing, and responding positively to early attempts at written communication.

Because the process of composing/writing is important not only as a means of communication, but also in relationship to reading (Cramer, 1978; Durkin, 1966; Hildreth, 1936; Shanahan, 1980), teachers need to inquire into ways to foster composing at home, as well as at school. Almost no experimental research exists in this area. The few qualitative studies that have been done point to a need for controlled quantitative studies (Graves, 1982).

Teachers have occasionally noted developmental differences and differences in fine motor control between boys and girls (Maccoby and

Jacklin, 1974). Specific differences in levels of writing or differential effects of home writing experiences on boys and girls have not been explored.

### Definition of Terms

Composing/Writing—Communicating ideas and feelings through the process of drawing, writing, or dictation

Handwriting—The motor process of putting graphic symbols on paper

Fluency—The number of words a child writes at any given sitting

Invented Spellings—Experimentation with sound/symbol relationships for the purpose of writing words

Parent Involvement—The participation of parents in the home composing project; this included workshop attendance, completing and returning weekly forms, and working with children on at least one composing activity each week

Home Composing Curriculum—A booklet consisting of eight composing activities parents used with their children at home; the introduction includes suggested parental behaviors, ideas for motivating young writers, and a materials list; response sheets are included in the parent booklet (Appendix E)

### Statement of the Problem

The impact of a home composing curriculum at the kindergarten level was investigated in this study. The results provide information about the effects of the curriculum on children's writing achievement, concepts about print, and writing fluency. This study contributed to

the present knowledge of parent involvement, the composing processes of young children, and the interaction of these two areas.

Specifically, the purpose of the study was to examine the following research questions:

1. Would children who received the home composing curriculum display a higher mean score for reading readiness than children in the control group when reading readiness was measured by the Concepts about Print test?
2. Would children who received the home composing curriculum display a higher mean level of writing fluency than children in the control group when they were asked to write as many words as they knew how to write?
3. Would children who received the home composing curriculum display a higher mean level of writing achievement than children in the control group when writing achievement was measured by three separate posttest writing samples, evaluated by the Lamme/Green composing scale.
4. Would there be differences between the mean scores of kindergarten girls and kindergarten boys who were exposed to the home curriculum on any of the five measures?

5. Would there be any interactions between gender and treatment on any of the five measures?
6. Would there be any interactions between class and treatment on any of the five measures?
7. Would there be any interactions between gender and class on any of the five measures?
8. Would there be differences among the mean scores of the four classes on any of the five measures?
9. Would there be any three-way interactions among class, treatment, and gender on any of the five measures?

### Theoretical Rationale

According to research by Clark (1976) and Durkin (1966), the home environment can provide reading and writing experiences that schools find difficult to offer. Dyson and Genishi (1982) and Teale (1982) posit the view that natural literacy development depends upon social interaction and speech. For many children, the home affords a situation where they can interact with adults and older siblings as they begin to read and write. A supportive home environment can enhance the interrelationships between reading and writing (Durkin, 1966; Hildreth, 1926; Taylor, 1983; Teale, 1978, 1982).

The connection between reading and writing was documented when Clay (1975) found a high correlation between writing vocabulary (fluency) scores and her word reading test score for children five

years, six months old. A correlation of 0.79 between Clay's Concepts about Print and Word Reading tests indicate interrelationships among these instruments and the constructs they measure.

Some specific items in the Concepts about Print test appear to be directly related to the home writing curriculum used in this study. Several items assess left-to-right movement. Adults model left-to-right movement when they take dictation from children and follow the text with their fingers as they read back the words. Perception of word boundaries and matching spoken and written words can also be learned through dictation and rereading experiences (Clay, 1975). Three items in the Concepts about Print test assess knowledge of punctuation marks. Children can become aware of these symbols as their parents model appropriate use of punctuation in meaningful writing.

Though writing development does not follow a set sequence (Vukelich and Golden, 1982, 1984), the Lamme/Green scale developed for this study provides a hierarchy of categories through which children typically progress as they learn to compose/write. Since writing is enhanced by interaction with supportive adults and other children (Dyson and Genishi, 1982; Teale, 1982), it seems likely that the level of composing should increase as a result of experiences with the home writing curriculum.

#### Significance of the Problem

In light of the academic skills orientation that is currently flourishing in early childhood programs it is not difficult to

understand parental anxiety over reading and writing readiness. Most parents are concerned that their children become competent writers, but are unsure of materials and methods they can use to facilitate the writing process. The results of this study will provide parents with information about the effectiveness of a field-tested composing curriculum.

This study may also influence the ways in which teachers approach parent involvement. Teachers are a potential source of information for parents as they select home reading and writing activities. With the many commitments and responsibilities of kindergarten teachers, it is difficult for them to spend time developing home as well as school curriculum. Teachers will be able to use materials from this study as a guide when they plan parent workshops and home writing curricula for their individual settings.

Knowledge about parent involvement should also be expanded by the results of this study of home writing. Literature in early childhood reading aptly describes the home environments of early readers (Durkin, 1966; Teale, 1978, 1982), but does not address specific activities and parental teaching strategies that foster writing at home. Because the home situation is such an important factor in cognitive development, it seems imperative that research on home learning be extended to the area of writing. Research in the area of home writing has seriously neglected quantitative data to justify home writing curricula, indicating a need for further study.

### Limitations and Assumptions

The internal validity of this study may have been threatened by interaction between the writing/composing curricula (history) that were used in the classrooms and the treatment. It was difficult to say whether or not the changes in the dependent variables could be attributed solely to the treatment. Classroom curricula are discussed in Chapter III.

The generalizability of the study was limited to parents who were able to attend workshops and spend a minimal amount of time each week working on composing activities with their children.

Posttest scores could have been influenced by several factors. In the researcher's classroom scores may have been higher because the parents tried to do more to help with the study. Occasionally children in the experimental group discussed the home writing activities with the control groups. Parents were told that the other group would have these activities the second semester and were urged to wait until that time to participate.

### Summary

The researcher investigated the effects of a kindergarten home composing curriculum on three important areas of reading and writing readiness: writing achievement, writing fluency, and concepts about print. The study was designed to add to the existing knowledge of parent involvement, early childhood composing, and the interaction of these two variables. Results of the study should assist kindergarten teachers in fostering composing at home and at school.

## CHAPTER II REVIEW OF RELATED RESEARCH AND LITERATURE

### Introduction

Parents are teachers of their own children, either consciously or unconsciously, as they model, directly instruct, and respond to their children.

Most parents intuitively do an adequate job of helping their babies learn to talk, but often do not feel prepared to teach their children to write. Letter formation and correct spelling are more of an emphasis than the trial and error approach that these parents used when their children were learning to speak (Forester, 1980). In addition, the tenor of language transactions between parents and their young children is often directive and controlling (Hoffman and McCully, 1984). When parents suggest words to be written, spell, and give directions about spacing, children may learn to feel incompetent about their writing.

Most children learn the intricacies of oral language by imitating what they hear at home and by experimenting with speech patterns and rules. Sometimes infants play with language as they babble and repeat sounds. At other times they use language for a purpose, e.g., "dat" tells an adult what the child wants. Children's awareness of meaning takes precedence over the specific language that is used (Donaldson, 1978). Parents are usually able to understand their own children's

language. Bissex (1981) states that "Children learn language among people who respond to their meanings before their forms" (p. 787).

A parallel can be drawn between the development of oral and written language. Just as speech develops only in an environment rich in oral language, writing develops when children are regularly exposed to print. The availability of writing and drawing materials and exposure to adults who write are potent influences in the lives of young writers (Bissex, 1981; Calkins, 1980; Durkin, 1966).

Research on comparative language environments demonstrates that in programs where children's composition is an integral part of language arts, children become more proficient readers and writers (Birnbaum, 1980; DeFord, 1981). Kindergarten children are just beginning to explore the rudiments of written language. The home environment can do much to support the school's writing curriculum if teachers are able to communicate to parents appropriate ways to facilitate young children's writing. There is a need for educators to learn the most effective ways to foster parent involvement in the composing process.

Few research studies directly address this specific area. However, research in several related areas suggests some potentially important relationships between parent involvement and composing/writing curriculum. A survey of the literature related to parent involvement in writing revealed five areas for investigation: (a) connections between drawing, oral language, reading, and writing; (b) the development of writing in early childhood; (c) fostering the writing process in early childhood; (d) education programs supplemented by parent involvement; (e) sex differences in language arts.

Writing is not an isolated process. Oral language, drawing, and sometimes reading precede and/or accompany young children's writing. Scribbles and designs form a common origin for both drawing and writing (Kellogg, 1969) and both processes can be enhanced by appropriate conversation (Hoffman and McCulley, 1984). Similarly, exposure to printed materials and literacy experiences enhance both reading and writing development. The interrelationships between these language and literacy processes will be examined in the following section.

### Drawing and Writing

For most children, writing evolves naturally from drawing (Emig, 1977; Kane, 1982; Zepeda de Kane, 1980). As children gain experience in drawing, their scribbles become symbolic and often look like shapes or letters (DeFord, 1981; Kellogg, 1969). Children who observe adults writing and live in an environment where printed materials are valued will be more likely to make "mock letters" (Birnbaum, 1980; Hall, Moretz, and Staton, 1976) and attempt to read their own messages (Dyson, 1981). These children are beginning to understand that ". . .the marks on paper are a written version of speech" (Donaldson, 1978).

In studying over 500,000 children's drawings, Kellogg (1969) found that 20 types of scribbles emerged. The scribbles involved the use of six categories of lines: vertical, horizontal, diagonal, circular, alternating, and dots (no line movement). These strokes, which appear in the formation of alphabet letters, are practiced spontaneously by young children as they draw. When a two- or three-year-old draws a scribble that resembles a shape, this shape is often remembered and

repeated in subsequent artwork. The shape stage follows patterned scribbling and emerges in the third or fourth year, depending upon individual experiences. Shapes evolve into six distinct diagrams: rectangles (including squares), ovals (including circles), triangles, Greek crosses, diagonal crosses, and odd shapes. At first diagrams are combined with scribbles, then later with other diagrams, forming combines. Aggregates, combinations of three or more diagrams, are the most predominant art form of three- to five-year olds. Kellogg (1969) observed that these stages are self-taught through practice, rather than learned by adult instruction.

The diagrams, combines, and aggregates that Kellogg described are not always perceived as drawing by young children. Frequently preschoolers classify certain shapes or patterns in their drawing as writing. The transition between drawing and writing represents a shift in modes of self-expression. ". . .[U]ntil the task of writing has been mastered, the system of drawing is the only one sufficiently elaborated to permit expression of inner life" (Gardner, 1980).

Scribbling experiences allow children to refine the motor skills necessary for writing (Kane, 1982). Children move spontaneously from scribbling to representational drawing to writing. The drawing/writing process often allows children to think through their experiences before expressing their thoughts orally (Kane 1982).

The literature regarding the relationship between drawing and writing stressed the importance of scribbling and forming mock letters as precursors to writing. Frequent and spontaneous experiences with

pencil and paper provide children with opportunities to move through the developmental sequences of graphic representation.

Gardner (1980) also drew an analogy between language play and art activities of young children. Both types of play featured recurring patterns, versatility, and a concentration of energy. Oral language frequently accompanies the drawing activities of young children (Gardner, 1980; Kane, 1982).

Just as young children's drawing activities are often accompanied by talk, writing also has an important link to oral language. The following subsection will explore this connection.

### Oral Language and Writing

Ethnographic and observational studies of beginning writers focus on the importance of oral language during the writing process (Bissex, 1980b; Childers, 1981, Dyson and Genishi, 1982). Graves (1980) and two other researchers observed sixteen first through third grade children from a rural New Hampshire School over a two-year period, to gather direct classroom information on the writing process. Data were collected by audio and video taping during the writing process, interviews, structured interventions, and analysis of the children's writing. Though efforts were made to minimize the influence of the researchers in the classroom, Graves admitted that their presence may have affected some of the data.

Graves and his associates found that oral language almost always accompanied the writing of these young children. The following types of oral language were recorded: sounding to prove for sound-symbol

relationship, sounding to break off a phonetic unit from a word, rereading the composition to reorient, conversation with friends, procedural talk, advanced statement of text, and conversation before and after composing. When teachers paid careful attention to the talk that surrounded writing, they were better able to help children gain and maintain control of the writing process. "In summary, the amount of language a child must produce before, during, and after the written event is paramount. Beginning writers show through voice alone that writing is much more of a speech event than a writing event" (Graves, 1982, p. 22).

Following Graves' observational research methods, Calkins (1983) found that when third-graders shared their writing verbally with peers they received constructive responses which helped them grow as writers. The sharing sessions took several forms; whole class meetings with several children sharing each time, clusters of three to four children, quiet sharing where responses were written, sharing which focused on one specific aspect of writing, sharing about the process of writing, and giving writing to friends or the class library. The teacher in the classroom emphasized that everyone in the classroom was a writing teacher and encouraged verbal communication among the children as they wrote, as well as during sharing times.

Lamme and Childers (1983) observed the composing processes of three young children (ages three to five) in a laboratory setting. All children were from white, middle-class homes. The children were videotaped as they composed in weekly sessions for sixteen weeks. The researcher presented a topic for each session, then became an

observer-participant and audience for the young writers. The taped transcripts were later analyzed in four categories: composing behaviors, behaviors accompanying composing, nature of oral interaction while composing, and functions of oral interaction while composing.

It was reported that these children ". . . talked constantly while they were composing." They engaged in basically four types of oral interaction during the composing sessions: questions, answers/responses, sharing/telling, and taking breaks. By far, the sharing/telling interactions were most common among this group of children. Sixteen functions of oral language were also recorded, the most common being response to questions, sharing products, and explaining (Childers, 1981; Lamme and Childers, 1983).

This study was one of the first to examine the activities of young children as they composed. The researchers thoroughly categorized behaviors of the children as they wrote, raising questions to be answered by future research. The population and setting of the study limited the generalizability of their results.

The relationship between the oral and written language of kindergarteners was observed by Dyson (1983) in two separate three-month studies conducted in a self-contained public school classroom. Dyson set up a writing center in the classroom that the children could come to whenever they wished. As an observer-participant, Dyson was able to eavesdrop on conversations between children and collect writing samples.

Names of friends and family members were the most common words written by these children. Second in popularity were lists of words that

labeled the environment. Both of these categories were particularly relevant to the children. Words and topics for writing often emerged as the children talked together at the writing center. Some children were more dependent on this talk which surrounded the writing than others. The four children discussed in this article used oral language for different purposes as they wrote. One child used oral language to interpret her writing. Another narrated her writing by talking as she wrote. A third little girl used the talk around her for writing stimulus.

Dyson (1981, p. 783) concluded that ". . . writing does not necessarily begin with the understanding of the alphabetic principle." For some children writing began with an idea, then they found a way to put that idea into print. Other children began with print, then needed to find a way to make that print meaningful. In either case, oral language seemed to be the salient factor preceding or extending children's composing.

Dyson's research is a valuable asset to the literature on beginning writing. It is one of only a few studies which focus on the role of oral language during composing. Two strengths of this study were that it was conducted in two segments over a considerable length of time (six months total) and that the researcher was able to interact with the children as the study was being conducted.

Dyson and Genishi's (1982) observations of two first graders confirmed findings by Graves (1981) and Dyson (1981). The social context seemed to be extremely important to these young writers as they clarified spellings and discussed their "work" back and forth. The

children also directed speech to themselves. In conclusion, the researchers stated that "these children's interactions had positive effects on their ability to write" and enhanced their capacity to "take responsibility for their own learning—to seek out needed information—and to contribute positively to another's learning" (Dyson and Genishi, 1982, p. 131).

### Reading and Writing

The language arts are integrated processes for young children. Just as writing depends on speech, reading can be learned or enhanced through writing. The early levels of basal reading series and kits used in most kindergartens approach reading first as the pronunciation of a sequence of letters and then the comprehension of meaning (Kita, 1979). Chomsky (1971) proposed that this approach to reading disregards what children already know about language and distorts children's understanding of the purpose of reading. When children learn to read primarily through phonetics they may come to view reading as a decoding process, rather than a communication process (Kita, 1979).

Chomsky (1971) argues that developmentally children are able to write before they are able to read. It is easier for young children to compose words by the sound-symbol relationship than to decode an unfamiliar word (Chomsky, 1971). Teaching reading before writing seems to be a backwards approach, according to several researchers (Chomsky, 1971; Graves, 1982; Hall, Moretz, and Staton, 1976; Hildreth, 1936).

Graves (1983) found that through writing, children were motivated to read as well as write. "Children acquire perceptions by writing. Eye, hand, mouth, and ear work together to aid a child to understand the process of putting words on paper. Because they write, children's perceptions expand. Children learn to read their own writing and the writing of others which is very different from reading a published reader or a library book" (Graves, 1983, p. 152).

Hall, Moretz, and Staton (1976) studied 18 children in four nursery school classes in Maryland to determine the sequence of learning to read in relation to learning to write. The children, who ranged in age from three years, four months, to six years, one month, came from homes where most of the parents were college graduates and the fathers were professionals. Seventeen of the eighteen children showed an interest in writing before an interest in reading. The availability of writing materials, books, magazines, and newspapers, along with parental responsiveness and the learning of letter names seemed to be salient factors in the writing development of these children.

Kita (1979) studied the concepts of reading and writing of twenty kindergarteners in Virginia from a range of socioeconomic backgrounds. These children ranged in age from five years five months to six years three months. Interviews were conducted within the classroom setting. In response to the researcher, the children indicated that the nature and purpose of reading could vary. Most believed that word recognition was necessary for reading signs, but not for reading books. They believed that an important part of reading books was looking at

pictures, and, in fact, that was one way to read books. The most frequent purpose the children mentioned for reading books was to learn how to read. Their purposes for reading signs, labels, and newspapers were similar to those of mature readers.

The same children's responses to questions about the nature and purpose of writing showed a more accurate understanding of this process. All reported that they had purposes when they wrote and that writing helped in learning to read. Writing samples indicated that most of the children tried to tell a story through writing. Kita (1979) concluded that language learning should include both books with related illustrations and an informal writing program where children "can experiment with print in a meaningful context" (Kita, 1979, p. 8).

Although limited to a small number of children from only one classroom, Kita's (1979) study has the strength of including lower SES children in the sample. Using the teacher as an interviewer could have affected the children's answers. The study is, however, a beginning for research on children's concepts about reading and writing.

Research by Chomsky (1979) and Graves (1982) indicated that children can begin composing words as soon as they have learned a few letter-sound combinations. Graves (1983) reports that 90 percent of the children entering school believed they could write. Only 15 percent believed they could read.

Graves (1980) stated that children want to write. His year-long investigation into the current status of writing in the United States revealed a trend toward more reading, less writing, and an

emphasis on language arts subskills (e.g., grammar, punctuation) over writing content. Ethnographic studies by Graves and his colleagues (Calkins, 1980; Kamler, 1980) support the value of informal writing experiences in learning to read and in children's choice of writing topics. When children were encouraged to write independently and invent their own spellings for words, grammar and punctuation improved along with reading comprehension and word recognition (Shanahan, 1980; Sulzby, 1980; Whiteman, 1980).

Birnbaum (1980) conducted a case study of eight children from the fourth and seventh grades in two school districts. The students were selected by teachers and administrators as the most proficient writers and readers in their grades. Video-tapes were made of each student three times during two semesters as she/he composed and read. Thirty hours of classroom observation, as well as parents' and teachers' interviews, were part of the study. Compositions written by the students were rated by two Educational Testing Service (ETS) readers and the researcher.

Differences were found in several areas between the more proficient and less proficient writers. More proficient writers were more reflective as they composed and showed an awareness of writing for an audience. Less proficient writers viewed composition as an externally imposed task and were more concerned with conventions of writing than the meaning conveyed by their texts. The proficient writers saw themselves as good writers and readers, whereas less proficient writers said their teachers thought they were good writers.

The home environment of the less proficient writers lacked two features that were present in the homes of the more proficient writers.

The first characteristic was the presence of an adult who wrote extensively and impressed upon the child the importance of writing. The second was the presence of audiences who responded with interest to the children's compositions. School environments of more proficient writers stressed composing for audiences, peer conferences, and dramatic presentation of student writings. The language arts curriculum at the other school was based on a series of performance objectives which allowed for individual pacing. The majority of the time students worked alone on their instructional exercises.

Birnbaum's (1980) study made a thorough investigation into the attitudes, composing styles, and academic and non-academic backgrounds of eight young writers. By limiting the sample size, the investigator was able to collect data on most factors that appeared to be relevant to successful composing. The sample was limited in size, ages of children, and geographic setting. However, the strengths of the study far outweighed the weaknesses and merit consideration for further research on environmental influences that affect children's writing.

The relationship between reading and writing also was studied by Durkin (1966). In a longitudinal study of children who learned to write and spell words, availability of a chalkboard and availability of reading materials in the home were important influences to these children. These early readers, identified from 61 schools in Oakland, California, achieved consistently higher reading scores through the sixth grade. The strengths of this study lie in both the large sample size and the longitudinal aspects. Generalizability is limited by the geographic location and SES level in the area where the study was conducted.

Zeman (1969) examined the relationship between reading comprehension and the basic sentence types and sentence structural patterns in the compositions of 180 second and third graders in seven Allentown, Pennsylvania, classrooms. Two of the schools were in a rural area and one was in a suburban area. Students in each grade level were separated by sex and reading level (above-average, average, below average) based on reading comprehension scores. The sample population was randomly selected from each of these twelve groups. Information on SES status of the students was not provided. Writing analysis was done on endings to unfinished stories. Analysis of the data revealed that above-average readers used the most complex sentence structures in their writing.

To explore the impact of different language environments on developing reading and writing strategies, DeFord (1981) collected writing samples from three first grade classes over a seven-month period. The language emphasis in the three classrooms stressed phonics, skills, or whole language models. The phonics teacher introduced each letter and sound separately to the class. The skills teacher used drills, workbooks, and lessons from the Ginn 720 series. The teacher in the whole language classroom integrated language experience, literature, and children's writing.

Oral reading strategies were analyzed in all three classrooms by Goodman's miscue analysis. Children in the phonics room exhibited a high dependence on decoding strategies. They frequently pronounced nonwords that looked and sounded like the text, but made no sense.

Children from the skills room had a high percentage of omissions and substitutions of graphically similar words. Readers from the whole language classroom manipulated the text by substituting words that were similar in meaning to the author's words. To these children, it seemed very important that the text make sense.

Reading comprehension was higher in the language/literature classroom than in the other two classrooms. Children were better at retelling stories, used more story conventions, and recalled more story information. The writing of children in the whole language classroom also "produced a wider variety of literary forms, such as stories, informational prose, songs, poetry, and newspaper reports" (DeFord, 1981, p. 656).

In conclusion, DeFord stated that interaction between reading and writing is necessary for children to become literate. As they read, children learn about writing, and they learn about reading as they write. The classrooms that separated reading and writing instruction were, therefore, self-defeating.

### Summary

The controversy over methods of reading instruction has continued for years. In this controversy, writing has been almost ignored. Yet, the studies cited above point toward a strong positive relationship between compositional writing and proficient reading for young children. When children are provided with materials and allowed to talk and write in an accepting environment, they tend to compose whole texts from the beginning (DeFord, 1980; Gundlach, 1981).

As children write they use letters and sounds to form words, then phrases, sentences, and longer compositions that have meaning for them. After the symbols are written they can be read back by the child and understood. Hildreth (1964) postulates that

In the initial stages of learning to read any experience with writing benefits reading no matter what methods are used in reading instruction. With more emphasis on writing paralleling the reading experience fewer children would reach an early plateau in reading and be unable to read at a normal rate (p. 16)

When young children are exposed to print and writing materials, writing evolves naturally from drawing. Writing almost invariably enhances the reading process when children master these abilities outside the school setting and without formal instruction (Chomsky, 1971; Durkin, 1966). Chomsky (1971) emphasizes that through writing children develop awareness of print and purposes for reading and writing. She states that we should allow children to ". . . get to the point where they can make their own productions before they are expected to read other people's productions. This would be true preparation for learning to read!" (p. 299).

The majority of studies that link the language arts areas together have been cross-sectional and limited to middle SES children and populations that were convenient to the researcher, leaving questions about their implications for more diverse populations. Few studies have looked at the effect of sex differences on drawing or oral language during the writing process. These areas need to be explored by further research.

It is clear from these studies that all areas of language arts are interconnected in young children's learning. The nature of these connections over time and across populations, and outside influences on these connections, need further investigation.

### The Development of Writing

#### Writing Stages

Children who have been exposed to print and who have had experiences with drawing materials may begin to distinguish between drawing and writing by age three (DeFord, 1980; Gardner, 1980; Hiebert, 1978; Lavine, 1972). During the early stages, a child's writing may not appear much different from scribbling to an adult (DeFord, 1980). The difference lies in the pattern of the scribbles and the child's interpretation. When DeFord (1980) studied the spontaneous writing processes of fifty children, ages two to seven, she found that graphic symbols children called writing were usually characterized by linearity, directionality, uniformity, flow, and rhythm and were interpreted as messages by the writers. This understanding clearly differentiates writing from drawing. DeFord observed that some rules of writing, such as linearity, uniformity, and directionality, may "swing in and out of conventional use between the ages of two and seven" (p. 159). The development of writing is enhanced when children play alone with print or share the writing experience with another child. Although DeFord cautioned that the following stages she observed were not necessarily sequential, they demonstrate a movement from global to specific concepts about print.

These stages are

1. Scribbling
2. Differentiation between drawing and writing
3. Concepts of linearity, uniformity, inner complexity, symmetry, placement, left-to-right motion, and top to bottom directionality
4. Development of letters and letter-like shapes
5. Combination of letters, possibly with spaces, indicating understanding of units (letters, words, sentences), but may not show letter/sound correspondence
6. Writing known isolated words—developing sound/letter correspondence
7. Writing simple sentences with use of invented spellings
8. Combining two or more sentences to express complete thoughts
9. Control of punctuation—periods, capitalization, use of upper and lower case letters
10. Form of discourse—stories, information materials, letters, etc. (DeFord, 1980, p. 162)

Harste, Burke, and Woodward (1981) video-taped three- to six-year-old children engaged in three literary tasks: reading environmental print, writing their names and anything else they wished to write, drawing self-portraits, and signing their names. The study included children from lower, middle, and upper SES homes. Socioeconomic status did not appear to be a relevant factor in children's performance on the

literary tasks. Like DeFord, these researchers found that three-year-olds often distinguish drawing from writing. When writing, children use different movements which appear to be more purposeful. The tape recordings of the sessions also revealed that when children write, they put meaning over object, rather than later labeling their marks.

Clay (1975) looked beyond writing development to children's awareness of written language. She studied children in school settings in New Zealand where copying words and tracing were encouraged. Therefore, her progression may not reflect the natural sequence children would go through without this form of stimulus. According to Clay, children develop an awareness of written language in the following sequences:

1. Understanding that print talks
2. Forming letters
3. Building up memories of common words they can construct out of letters
4. Using those words to write messages
5. Increasing the number and range of sentences used
6. Becoming flexible in the use of sentences
7. Disciplining the expression of ideas with the spelling and punctuation conventions of English (Clay, 1975, pp. 11-12)

Clay posits that children do not learn about writing at one level, then move to higher levels, as many curriculum sequences would imply.

Knowledge of all alphabet letters does not necessarily precede writing

words, sentences, and stories. Language learning is more intermingled than sequential.

Through her research Clay (1980) revealed a number of principles commonly found in children's early writing development. The recurring principle, exemplified by repeated letters or words, gives young writers the self-selected practice they need to provide them with a sense of accomplishment. The directional principle refers to children's developing the habit of starting at the left side of the paper when they write. Clay reports that this principle usually takes about six months to become established. Children demonstrate the generating principle by writing strings of letters or words. The inventory principle is exhibited when children write lists of letters or words. The contrast principle is reflected in the writing of opposites—letters which contain contrasting lines, or words which are opposite in meaning. When using the abbreviation principle, children let one or two letters represent a word. The flexibility principle refers to children's tendency to explore the limits of letter and word formation. These principles are not sequential but are integrated in different ways as children gain experience with writing.

Clay did not address the transition from drawing to writing or the impact of oral language on writing. Her subjects were taken from a school district where writing instruction was already in progress, therefore she was not able to observe the natural progress of children who had not had formal writing instruction. The development of grapheme/phoneme relationships and other spelling concepts were basically not addressed by Clay.

Observational research by Vukelich and Golden (unpublished manuscript) confirms DeFord and Clay's stages of writing development. Vukelich and Golden investigated the nature of children's concept of writing as a symbol system and the predominant patterns in children's writing. They collected writing samples from 34 four-year-olds and 39 five-year-olds on two different days in October, January, and April. The children were invited to a writing table in groups of five or six, given writing books and pencils, and directed to "Write anything you wish to write." When children indicated they were finished, the researcher asked them individually to "Tell me what you wrote."

The writing samples were classified into seven categories, with several subcategories in each. The main categories were

1. Drawing scribbles
2. Linear scribbles
3. Shapes, lines, symbols
4. Recognizable picture
5. Recognizable picture and unrelated writing
6. Recognizable picture and relating writing
7. Writing only

This study exemplified the wide range of drawing/writing produced by nursery school and kindergarten children and the progress they made during the year. Vukelich and Golden observed two distinct stages in the children's developing concept of message. First was the recognition that symbols are necessary to write; second, an awareness that a "precise message can be represented using written symbols" (Vukelich

and Golden, p. 19). These children write letters and numbers in strings, rather than scattering them about the page, thus demonstrating an early awareness of linearity.

The recent findings of Harste, Burke, and Woodward (1981) supported Vukelich and Golden's (unpublished manuscript) observation that age is not necessarily correlated with language development. Their study of the effects of home environments on the reading and writing development of three- to six-year-olds indicated that when children have equal opportunities to write and a wide exposure to environmental print, their responses to writing tasks do not differ across age levels.

### Summary

Several important implications emerge from the research on children's writing development. First, it appears that children can differentiate their writing from drawing at an early age (DeFord, 1980; Gardner, 1980; Harste, Burke, and Woodward, 1981; Hiebert, 1978; Lavine, 1972). Early writing appears before children produce letters or words that can be understood by adults (Clay, 1980; Vukelich and Golden, unpublished manuscript). Secondly, writing development does not necessarily follow an orderly sequence (Clay, 1980; Ford, 1980; Newman, 1983; Vukelich and Golden, unpublished manuscript). Thirdly, children's writing should be interpreted within the context of oral language in order to understand the meaning of the message (Harste, Burke, and Woodward, 1981; Newman, 1983; Vuchelich and Golden, unpublished manuscript). Finally, children seem to practice common principles as they gain experience in early writing (Clay, 1980).

## Invented Spelling

### Spelling Development

Some of the earliest research on invented spelling was conducted by Read (1971), who found that a few children began to write their own words at age three-and-a-half, often before learning to read. The youngest children Read studied used blocks or other alphabet toys to form words. He found that instead of memorizing, these children were learning ". . . a complex, but generally systematic phonology system (Read, 1971, p. 1).

Read presented a complex sequence that he found children followed in developing spelling skills. The first sounds that children related to letters were clear consonants (p t k b d f v s z j m n r l). The next step was for children to learn long vowel sounds. Read believed that children distinguished letter names from the sounds they represent. One child in his study represented this by putting dots over names of letters. At about the same time children were usually taught some sight words by their parents. The acquisition of ending sounds and short vowel sounds was linguistically described in Read's report.

The parents in Read's study provided writing materials for their children and accepted their invented spellings. None of the parents were experts in this area. Some of the children in the study began to read, as well as write early, though no statistical data were provided.

Read concluded that children who invent spellings have made abstract inferences about a complex phonetic system. This type of

language development, to some extent, is essential for reading and writing.

Building on the work of Read and Chomsky, Paul (1976) categorized features and stages of invented spelling based on writing samples she collected in her own kindergarten classroom. The first stage involved writing the first letter or phoneme of each word or syllable. In the second stage, children added ending phonemes and sometimes long vowels. Short vowels appeared in the third stage. The children interchanged vowels that were formed similarly in the mouth. A variety of vowels were used to represent each vowel sound. Children at the fourth stage were usually reading already. Their writing included memorized sight words and some diagraphs.

Paul also found that the thinking process involved in invented spelling took priority over the final product. Children seldom repeated the same invented spelling for a word. Often different spellings for the same word appeared several times in a text. Children frequently could not read back what they had written immediately after their composing and almost never by the next day.

Paul concluded that children's spontaneously invented spellings provide them with opportunities for independence in enhancing their written communication skills. The strategies children employ reflect their developing language abilities. Unfortunately, her study was limited to kindergarten children in her own classroom and does not reflect the continuity of spelling development in first and second graders.

The stages of young children's spelling were investigated by Forester and a first-grade teacher in Victoria, B.C., Canada, over a three-year period (Forester, 1980). The data consisted of classroom observations and anecdotal records. The stages Forester outlined support findings of other researchers (Bissex, 1980b; Read, 1971).

Forester noted many similarities between stages of oral language and written language development. In particular, she noted that children vary widely in the length of time they spend at each stage and that movement to lower stages is common at first. "Learning is not a linear process, but one of gradual synthesis and integration" (Forester, 1980, p. 187). From her observations, Forester concluded that spelling development is usually characterized by the following sequence of acquisition:

1. Consonants (beginning, final, median)
2. Blends (ch, sh, bl, tr, ek), morphologic markers (-ed, -ing, -'s, etc.)
3. Words in frequent use (today, we, have, etc.)
4. Vowels

Miscues in writing are usually indicative of growth, rather than mistakes, Forester cautioned. This can be exemplified by the observational findings of Gentry (1981) and Bissex (1981)

Gentry (1981) proposed five stages in early spelling development. Children in the deviant stage have no knowledge of letter/sound correspondence. Letters, and sometimes numbers, are used randomly to represent words. At this stage children are rarely able to "read back" their

compositions. Pre-phonetic spellers use the most salient sound features in their representations of words. Pre-phonetic words usually contain one, two, or three letters, and rarely contain vowels. The phonetic stage is characterized by an almost exact correspondence between letters and sounds. At this stage children have enough command of sound/letter relationships to write fluently.

The transitional stage emerges when children become familiar with more standard spellings and are able to apply many correct spelling patterns. The correct spelling stage indicates a readiness for formal spelling instruction. Gentry cautioned that time spent on creative writing experiences should exceed spelling instructions. Gentry's stages, based on Read's (1971) findings, explained spelling development in a way that could be understood and applied by teachers and parents.

Bissex's (1980a, 1980b) five-year case study of her son Paul's writing development supports many of the findings of Read (1971) and Gentry (1981) on invented spellings. Paul's early attempts at writing were characterized by nonlinear, letter-like forms that communicated a message, but did not represent individual sounds and words. Next, he used what he had learned about letter-sound relationships from the environment to construct messages. He used letter-name relationships (R = ARE), predominantly consonants, to represent some words at this stage. When the lack of spacing was pointed out to Paul, he used dots to separate words. Messages grew in length and vowels gradually became more prevalent.

Bissex described Paul as being very ego-involved with his writing and becoming upset when she could not read it. For Paul,

writing with invented spellings preceded both reading and formal writing instruction. As an awareness of words and correct spellings evolved from reading, Paul made his own spelling book, complete with correctly spelled words. At this point he became concerned with correctness and fluctuated between phonetic spellings, word analysis, and memorized spellings.

At approximately age six years seven months, Paul began using punctuation, double consonants, and visually recalled the approximate spellings of some words he had not memorized. By the end of first grade he had moved into conventional spacing and correct representations of short vowel sounds.

The case study approach is valuable in that it can lead to questions and patterns to investigate in broader studies. It also provides insight into the uniqueness of children's interests and patterns of development that large-scale studies are not able to do.

Paul's development as an invented speller paralleled the stages outlined by DeFord (1981), Read (1971), and Gentry (1981). Gentry (1981) used Paul's spellings as an example of his five stages of developmental spelling. At the pre-communicative stage (formerly called deviant), Paul demonstrated some knowledge of alphabet letters, but no awareness of letter-sound correspondence. The pre-phonetic stage (formerly called semi-phonetic) lasted only a few weeks for Paul. The letter-name strategy seemed to be the salient feature of this stage. During the phonetic stage all of the important sound features of words were represented in some way. Word segmentation and spacing also appeared. At this stage Paul was aware that words could be spelled phonetically in

more than one way. The transitional stage was characterized by visual spelling strategies, based on more extensive experiences with print. Reversals of letters within words were common at this stage. Paul reached the correct stage of developmental spelling at age eight, when he had established the basic rules of the English orthographic system.

Most of the studies described above were conducted in middle or upper SES homes or schools. This leaves questions about their applicability for lower SES children. Also, none of the studies compared differences in writing development between boys and girls, and factors that might influence differences.

Until this time, all of the research on early writing development has been observational. There is a strong need for more controlled studies that can more clearly investigate some of the conclusions of these researchers.

### Summary

The studies on early writing and spelling strengthen each other in their findings. They generally conclude that there is a developmental trend in children's writing, which does not necessarily follow the same sequence for every child. Spelling generally begins with scribbles, mock letters, or pretend writing. Next, one letter, usually a consonant, is used to represent a word. The use of two or more consonants, and occasionally long vowels, follows. Short vowels, and close letter-sound correspondence characterize the next stage. As children begin to read, their spelling becomes more conventional (Bissex, 1981; Forester, 1980; Gentry, 1981; Paul, 1976; Read, 1971).

Fostering the Writing Process  
in School and at Home

Writing Environments

Parents usually provide a climate that allows trial-and-error practice in learning to speak (Forester, 1980). There is also evidence that many parents have found successful ways to foster reading and writing development at home. It has been suggested that many positive factors in home language climates might be applied to classroom settings (Durkin, 1966; Forester, 1980; Harste, Burke, and Woodward, 1981; Moss and Stansell, 1983; Vukelich and Golden, unpublished manuscript). This section will examine ways that both parents and teachers can foster the writing process in early childhood. Recommendations emerging from these studies will be synthesized into two lists.

Hall, Moretz, and Staton (1976) studied the home backgrounds of early writers "to ascertain the sequence of learning to write in relation to learning to read" (Hall, Moretz, and Staton, p. 585). The study included ten girls and nine boys ranging in age from three years, four months to six years, one month. Most of the parents were college graduates, the fathers holding professional positions. They were all identified by their teachers as early writers. Classification was confirmed by a writing sample. Questionnaires were completed by both parents and teachers, and both children and parents were interviewed. Children were selected from four different nursery-kindergarten classes. All the children had frequently observed parents and/or siblings writing and had access to writing materials. Reading was a frequent activity in these homes.

Although the population in this study was extremely limited in number and SES levels of students, the findings were similar to findings of other studies of early writers and readers.

Durkin (1966) also studied the home environments of early readers to determine common factors in their development. The population consisted of first graders from 61 schools in Oakland, California. Children were identified by word or sentence reading ability and scores on Gates Reading Tests. The children were followed until sixth grade and found to have consistently higher reading scores.

The strengths of Durkin's study were found in the number of schools and subjects included in the investigation as well as the use of standardized measures to assess reading achievement. It also showed the continuing importance of a positive home reading environment for children from similar populations.

Snow (1983) examined the oral language interactions of an academically oriented middle-class mother and her preschool son. Like many middle-class families, this parent/child dyad frequently engaged in literacy-focused dialogue. In homes where activities with print (i.e., reading, writing, typing, word games) are common, conversations between preschoolers and parents often center around letters, numbers, words, and books. Snow discussed several techniques this parent used to facilitate language acquisition and literacy. These included expanding on the child's utterances, adding new information to the topic, clarifying questions, answering questions, taking steps to help the child focus on the task at hand, and insisting that a task be

completed. Snow concluded that differences in reading achievement between middle-class and working-class children may be attributed partly to availability of literacy materials and partly to the way parents prepare children for writing and reading through their oral language transactions.

The quality, or tenor, of oral language transactions between parents and children was observed by Hoffman and McCully (1984). The researchers recorded conversations between parents and children when the children drew pictures and when they wrote about their pictures. As the children drew, their parents were warm and encouraging, demonstrating an acceptance of the meaning in their children's art. The tenor changed abruptly when the children began writing. Parents became directive and controlling, instructing their children about spelling, spacing, punctuation, and even the content of their writing. In essence, the parents demonstrated a totally different set of expectations for their children as artists and as writers.

These researchers concluded that several conditions in the home environments of early writers may contribute to writing development.

1. Adults and older siblings in the home wrote and showed an interest in the children's writing (Birnbaum, 1980; Durkin, 1966; Haley-James, 1982; Hall, Moretz, and Staton, 1976; Harste, Burke, and Woodward, 1981).
2. Writing materials were available to the children (Durkin, 1966; Harste, Burke, and Woodward, 1981; Teale, 1978).

3. A wide range of printed materials was available to the children and the children were read to regularly (Durkin, 1966; Harste, Burke, and Woodward, 1981; Snow, 1983).
4. Children were included in family outings (e.g., cooking, writing to Grandma, reading the comics) where language development occurs spontaneously (Harste, Burke, and Woodward, 1981).

Moss and Stansell (1983) compared the home and school writing of a five-year-old girl. This case study revealed extreme differences in the child's perceptions of writing in these two environments. At school, Heather said she wrote to learn how to make letters and spell words. At home, she reported writing for enjoyment—"Notes to people and stuff like that" (Moss and Stansell, 1983, p. 347). At home she was able to choose her topic and method of writing and make decisions about language, meaning, and writing conventions.

Although the case study involved only one child, it raised questions about children's perceptions of writing when taught by two very different methods.

Gentry (1978) concluded from observational research (not described) that kindergarten, first, and second grade teachers could improve the writing and spelling instruction in their classrooms by encouraging creative writing, de-emphasizing standardized spelling, and responding to nonstandard spelling appropriately. In order to implement these steps at home and at school, teachers must be aware of children's

stages of spelling development (Gentry, 1981) and be able to communicate these to parents. "Teachers should accept children's early misspellings in the same spirit that parents accept the early mispronunciations in their children's oral language" (Cramer, 1978).

Because writing and oral language are so interrelated for young children, it is important to allow children to write together and talk freely as they write (Childers, 1981). Dyson and Genishi (1982) and Lamme and Childers (1983) found that writing was as much an oral as a written process for the children they studied. Children use oral language to ask for assistance, to "sound out" words, to reread what they have written to each other, to answer and respond to questions, and to share their writing with others. These case studies provide valuable information for parents and teachers in planning environment conducive to writing.

A comparison of the writing strategies of five kindergarten children in formal and informal language arts settings was made by Dyson (1982). The subjects were already participants in one of Dyson's two other studies, in which they were invited to write at a writing center. This writing was not observed by their teacher. Parent and child interview supplemented the information obtained at the writing center.

The five children Dyson described were all at different stages in their writing development. The open-ended activities at the writing center allowed them to use their current writing strategies and explore new ones. The language arts curricula in the classrooms focused on workbooks and worksheets used for practicing names, sounds, and formation

of alphabet letters. For the children who were inventing spellings on their own and knew many letter sounds, writing strategies were completely stifled at school. For the child who was not yet aware of the connection between talk and print, the attempt to teach letter sounds was not very helpful.

Although the small sample size and number of classrooms observed limited the generalizability of this study, it does demonstrate the ineffectiveness of a "typical" pre-reading curriculum for enhancing the writing strategies of kindergarten children.

In a study of 17 four- and five-year-olds who had no formal writing instruction, Wiseman and Watson (1980) found that children can learn a great deal about printed language without being taught. The researchers collected three writing samples from each child. For the first sample the children were asked to write everything they could write. The second sample was a written conversation in which children responded with writing and reading to statements read and written by an adult. Family pictures and stories about the pictures comprised the third sample. The children demonstrated numerous writing skills ranging from a combination of scribbles and occasional letters to punctuated sentences with phonetically spelled words that were close to standard spelling. The writing samples and interviews with the children provided evidence that young children can become aware of grapheme/phoneme relationships and experiment with writing without formal instruction. Wiseman and Watson concluded that "[p]erhaps out-of-school situations in [these children's] lives should be approximated in the classroom to encourage a natural learning process" (1980, p. 753).

Once again a small sample size and lack of information about the children's socioeconomic backgrounds limits the generalizability of this study's results. No information was given on the home language environments of these children. Two strengths of Wiseman and Watson's study were that they collected three writing samples in different ways and interview data was collected from the children.

Another study of positive classroom writing environments was conducted by Florio and Clark (1982). Data were collected in two classrooms: a second/third grade open space classroom and sixth grade middle school classroom. The open space classroom, on which this article was based, had 100 students from two distinct populations; children of students and professors from a nearby university and lower SES students (Title I). Approximately half the children came from single parent homes. Data collection for study included ethnographic field notes, selected video-tapes, weekly journals by teachers on teaching, writing, teacher interviews, and collections and discussion of children's written work.

The researchers found that most of the writing in this classroom was not evaluated by the teachers, writing initiated by children gave them the most control over their own writing, and the most informal writing experiences appeared to involve children the most. This ethnographic study has the strengths of a wide range of data and a large, varied population.

Lickteig (1981) reviewed research studies on writing to gather recommendations for teachers of composition at all levels. She asserted

that the "basic skills" speak to little that is basic in education. "[T]eacher attitude, which is audibly and visibly reflected in teacher words and actions, is the single most important ingredient in a successful composition program for children" (Lickteig, 1981, p. 45). In a supportive atmosphere, children can afford to take risks and make mistakes. This is true for composition, as well as other areas of self-expression. Another basic for successful writing is real experiences accompanied by discussion. Ideas, feelings, and attitudes are also important to share before writing. Because reading, writing, and talking are such integrated processes, the importance of oral and silent reading in the classroom cannot be over-emphasized. Finally, frequent writing experiences are necessary if growth is to occur. Children should have opportunities to write individually, in pairs, and in small groups with teacher support, but not constant instruction and guidance.

The value of teachers' responses to children's writing was discussed by Tway (1980). The researcher observed and worked with ten children, ages six and one-half to eleven at the McGuffey Laboratory School of Miami University. These children were selected by their teachers as talented writers. Tway found that teachers' writing with children, encouraging discussions of writing, and accepting writing in an authentic way helped children grow as writers. Another successful technique for motivating children's writing was to invite children's authors to visit the classroom, read their books, and interact with children.

Graves and Giacobbe (1982) investigated first grade children's progress in writing from December to May, through a series of questions asked before and after the children wrote. Ten of the twenty-three

children in Giacobbe's class, representing a continuum from low to high writing performance, participated in the study. Xeroxed writing samples were collected to demonstrate parallels between concepts of writing and actual performance. Two children, one showing high writing performance and one showing low writing performance, were used as case studies.

Between December and May the lower child showed differences in his process of choosing a subject, a clearer ability to differentiate between drawing and writing, and a sense of continuity about writing. During the same time span the more advanced child showed a decrease in the number of oral words that accompanied her writing and the percentage of written words made up from oral. The length of her writing increased. She became more aware of the process of writing, composed over a longer period of time, developed a sense of audience, and evaluated her own work more extensively.

This study provided insights into ways that effective questioning techniques and a classroom atmosphere conducive to composition writing can enhance certain areas of writing development. The lack of a control group was a definite handicap in this study. It was the only study reviewed that focused on the topic of teachers' questions.

### Summary

The current research on writing development points to certain implications for parents and early childhood teachers.

1. Introduce alphabet letters informally (Forester, 1980; Templeton, 1980)

2. Allow children to choose writing topics and messages; provide frequent opportunities for creative writing (Forester, 1980; Gentry, 1978; Lickteig, 1980; Templeton, 1980; Vukelich and Golden, unpublished manuscript, 1984; Wiseman and Watson, 1980)
3. Encourage oral language during the composing process (Dyson and Genishi, 1982; Gentry, 1978; Lickteig, 1981)
4. Immerse children in print (DeFord and Harste, 1982; Lickteig, 1981)
5. Provide language experience activities (Forester, 1980; Vukelich and Golden, unpublished manuscript; Wiseman and Watson, 1980)
6. Make writing materials accessible to children (Vukelich and Golden, 1984; Wiseman and Watson, 1980)  
Include markers, pens, pencils, paper, magnetic letters, typewriter, wooden letters, and sand (Vukelich and Golden, 1984)
7. React to the meaning of children's writing, rather than conventional spelling and punctuation (DeFord and Harste, 1982; Florio and Clark, 1982; Forester, 1980; Gentry, 1978; Hoffman and McCulley, 1984; Moss and Stansell, 1983; Tway, 1980)
8. Provide word-game activities (Moss and Stansell, 1983; Templeton, 1980)
9. Base creative writing on real experiences (Lickteig, 1981; Tway, 1980)

10. Enhance risk-taking and self-expression by providing a supportive atmosphere for young writers (Lickteig, 1980)
11. Encourage children to explore and experiment with writing (Dyson, 1983; Lamme and Childers, 1983)
12. Provide opportunities for children to share what they write (Childers, 1981)
13. Collect writing samples throughout the year to allow children to observe their own progress and evaluate their own work (Wiseman and Watson, 1980)
14. Become models of good writing by writing with students (Forester, 1980; Newman, 1983; Tway, 1980)

Educational Programs  
Supplemented by Parent Involvement

Studies of Parent Involvement

A generation ago parent involvement was usually limited to parents dropping their children off at school, occasional P.T.A. meetings, and voting on school bond issues. The inception of the Elementary and Secondary Education Act (1965), the California Early Childhood Education Program, and the Florida Primary Education Program, among other state-wide programs, have emphasized the role of parents in education.

The majority of parent involvement programs in the past twenty years have focused on early intervention with lower-class families. The programs typically involved children from birth to three years or the preschool years from three to five. Research on these programs was

usually correlational in design and did not always control for factors such as maternal education, family income, pre-test information, or the voluntary status of the parents (Irvine et al., 1979). Many of these programs involved home visitations as well as center-based parent participation. Current research projects have experimentally studied the impact of home interventions on children in preschool programs and elementary schools as well. Both types of programs will be examined in this section to provide an understanding of the importance of parent involvement in children's cognitive development.

Bronfenbrenner (1974) evaluated data from twenty-seven preschool parent involvement projects, some that included home visits and some that did not. Only those that had follow-up data for two years following the termination of the program were included in the evaluation. Bronfenbrenner's conclusions emphasized the importance of family involvement during early childhood (Bronfenbrenner, 1974; Boger et al., 1978).

1. Children made substantial initial IQ gains in early intervention programs in a group setting. These gains showed a progressive decline that seemed to be related to home factors.
2. Programs focusing solely on home-based tutoring had similar results to center-based, group programs.
3. IQ gains were maintained for three to four years in programs that focused simultaneously on parent and child. These gains also had a carryover effect for

siblings of the target child. Gains were most substantial when the parent (usually the mother) felt she was primarily responsible for the child's learning.

Bronfenbrenner credits the continuity of the family social structure with the maintenance of IQ gains. Families were able to reinforce and continue positive teaching behaviors in the years following an intervention program.

In Parents as Teachers of Young Children: An Evaluative Review of Some Contemporary Concepts and Programs, Goodson and Hess (1975) studied the impact of twenty-nine parent involvement programs. Nine of the programs included follow-up testing from three months to five years after the program. Significant IQ gains were maintained for children in seven of the nine programs over these various lengths of time. The few programs that measured achievement gains had evidence that children maintained these gains one to two years later. Goodson and Hess concluded that these twenty-nine parent involvement programs ". . . consistently produced significant immediate gains in children's IQ scores, seemed to show long-term effects on children's IQ and school performance, and seemed to positively alter the teaching behavior of parents" (Boger et al., 1978).

Gordon's Parent Education Head Start Planned Variation Program was implemented in four counties in different areas of the United States. (Olmsted et al., 1980). Paraprofessionals were employed to spend half days making home visits and half days in the classroom. On a series of five cognitive measures the children in this particular program performed

about as well as children in other Head Start Programs and exceeded the control group on the Caldwell Preschool Inventory.

The Parent Education Follow Through Program (PEFTP) is currently serving children in grades kindergarten through three in ten communities in nine states. The population of the program includes urban, rural, and multiethnic families. Parent educators have a dual role of working as home visitors and classroom aides. A major focus of the program is to include parents in six major areas of parent involvement: teacher of own child, classroom volunteer, paraprofessional, decision maker, learner, and audience. Home learning activities were developed by teachers, parents, and paraprofessionals. The Abt evaluation indicated long-term achievement gains for children involved in PEFTP. Subsequent evaluations confirmed positive achievement results for children involved in this project (Olmsted et al., 1980).

Teacher attitudes and experiences appear to affect methods of parent involvement. A survey conducted by Becker and Epstein (1982) revealed techniques used by teachers to involve parents in home learning activities. Data were collected from 3,700 public elementary school teachers of grades one, three, and five, in over 600 schools in Maryland. The survey questioned teachers about 14 possible techniques they could use to involve parents. The responding teachers (73 percent) reported a positive view of home learning and varying use of these techniques.

"Only a minority of teachers initiate interactions with parents that go beyond what is traditionally expected of them" (Becker and Epstein, 1982, p. 88). For example, only 7 percent of the teachers

reported conducting three or more parent workshops or group meetings a year. Conventional methods of parent communication, e.g., talking with parents, open-school night, and notes home were reported by a vast majority of teachers.

Reading to children or listening to children read aloud was the most common technique for involving parents of younger children in home learning. Seven out of eight first grade teachers reported using this activity. In addition, some teachers supplemented the reading by suggesting that parents take children to the public library or by loaning books and teaching materials to parents. Reading activities were used by teachers with families from all educational levels. Teachers of younger children also reported more frequent use of classroom observations by parents to help them learn some teaching strategies. Only one-third of the teachers surveyed believed that many or most of their parents would attend a workshop, even if it were held in the evening. The survey did not include the possibility of a weekend meeting.

The results of this survey provided an overall view of techniques that elementary teachers in one state used to involve parents in home learning. Although a response rate of 73 percent is very good, it still leaves questions about methods used by the other 27 percent of teachers. More specific techniques for involving parents were discussed in the following article.

Epstein and Becker (1982) also examined the comments of over 1,000 teachers concerning parent involvement in home learning. These comments were part of the survey described above. They found that

variation in comments was related to number of years of teaching experience and number and types of contacts with parents.

The issue of time spent on parent activities seemed to be a crucial consideration for many teachers. They questioned whether or not the time necessary to plan and implement parent projects was worth their effort. This is a very valid question considering the lack of research on the effects of home learning programs in schools. In their conclusion, Epstein and Becker, 1982, p. 111) noted:

Because of an absence of research on the effects of parent involvement, it is impossible to assure teachers that certain practices will lead to improved parent-child exchanges, or improved parent-teacher relations.

Without research evidence, it would also be difficult to answer questions teachers have about the most valuable ways for parents to spend their limited time with their children. Some teachers felt that parents should spend their time on socialization and development. Others believed that a short amount of time spent each day on specified skills was beneficial. In contrast, one teacher remarked parents might become frustrated and impatient if expected to work on skills at home.

In commenting on children's time and feelings about home learning, some teachers expressed the belief that academics should be kept to a minimum and more time spent on play and individual interests. Others added that parents should instill values, responsibility, and home-related skills. One reason given for not asking parents to tutor their children was the added stress it might cause in the family if a parent took on this role. The authors also questioned whether the benefits of

parent involvement were the same for older and younger children, parents of all educational levels, and married and single parents.

Based on statistical analysis of the survey and additional teacher comments, Epstein and Becker identified areas where research is needed. These included investigating the most educationally significant type of parent involvement, advantages and disadvantages of various programs, and skills parents would need. The attitudes of parents, teachers, administrators, and students toward parent involvement warrants further research, as does the role of the teacher in organizing parent activities (Epstein and Becker, 1982).

The following two experimental studies demonstrate that parental assistance with reading appears to have a positive influence on children's standardized reading scores.

The impact of a parent involvement reading project in an inner city school was the focus of a study by Shuck, Ulsh, and Platt (1983). Their population included 150 third and fifth grade remedial reading students randomly assigned to experimental and control groups. All students were given a Slosson Intelligence Test and were pre- and posttested using the Stanford Achievement Test, reading comprehension subtest. Both groups also attended the reading laboratory daily for 30 minutes. Students in the experimental group did individualized activities at home with their parents. Records were kept via calendars that parents used to record the types of activities and time spent on them. A behavior modification system, using points and prizes, reinforced homework and class participation. Parent-teacher conferences

were held three times during the year, though not all parents were able to attend.

The data were analyzed by analysis of covariance, using percentage of school attendance and reading achievement scores as covariates. There was a significant main effect for parental tutoring. The experimental group had a mean posttest grade equivalent score of 3.8, compared to the control group's mean grade equivalent of 2.6.

Limitations of this study included the possibility of a teacher variable, and an inability to generalize from an urban population. Also, the use of a behavior modification system could have confounded the results. The authors indicated that future research is needed to determine whether or not home programs are effective for different age levels, in curriculum areas other than reading, and whether or not parent tutorial programs have lasting effects.

A research study from Great Britain (Tizard, Schofield, and Hewison, 1982) showed that significant gains in reading achievement were obtained by children whose parents listened to them read. The research project was conducted in six schools in a working-class section of London. Two schools were randomly selected for the experimental parent involvement group, two were selected for an in-school reading intervention, and the remaining two schools served as a control group. One class was chosen from the top infant class (six- to seven-year-olds) in the two experimental schools to have the intervention. The other classes formed within a school control group. Parents were first informed of the project by letter, second by a school meeting, and

finally by a home visit by the researcher. The project continued for two full school years. During the first year, children took home their school readers. Second-year students read supplementary books and library books in addition to school readers.

All children were tested with three reading tests at the beginning, middle, and end of the intervention period. Mean scores on all three instruments showed a highly significant improvement for children who received the parent intervention, but no comparable improvement for children receiving the in-school reading instruction or the control group. This study was extremely well planned and well designed. The length of the study (two years) and the home visits by the researcher added to its strength. Limitations would include possible teacher effect because of no in-class control group, and the possibility of between-school differences.

Several recent studies have exemplified methods that early childhood teachers can use to involve parents in their language arts programs. Teachers at Wayne State University Nursery School in Michigan used journals as a home activity for parents and children (Elliott, Norwosad, and Samuels, 1981). Parents were introduced to purposes and procedures regarding the journals at a Saturday morning workshop. Mimeographed pages provided specific assignments related to school topics that parents could focus on when writing with their children, e.g., toys at home, friends at home. The topics appeared at the top of the page and space remained for dictated sentences and copying by those children who were ready. The journals were sent home on Friday and

expected to be returned on Monday. Journal topics were discussed at school and home writing was read and shared at the book center.

The teachers believed that this was one way parents could be helped to ". . . understand that family conversation, family outings, looking at books, being read to, and seeing adults read are as important as learning the alphabet" (Elliott et al., 1981, p. 691).

Burgess (1982) found that parent participation in a readiness program can have a positive effect on overall readiness and language readiness scores on standardized tests. A sample of 90 families was chosen from a total population of 200 children entering kindergarten in a small town in Maine. Sixty of the parents volunteered to participate in the parent training; 30 prior to their children's testing, and 30 after the children's testing. The control group of 30 parents did not volunteer to participate.

The researcher and an assistant conducted eight, two-hour parent workshops during February and March preceding the children's entrance in school. The workshops consisted of sharing and evaluation, presentation of new information, and the preparation of games and activities. The following eight topics were covered in the workshops: reading to children; stimulating oral language; color, size, shapes, textures, and classification; more abstract sequencing, comparison, and classification; body awareness; listening skills; number recognition, one-to-one correspondence; and writing stories-taking dictation and modeling correct letter formation.

The two posttest measures were the Utah Test of Language Development and four subtests of the Metropolitan Readiness Test, Level 1.

The experimental group scored significantly higher than either of the control groups on both measures.

The use of volunteers was well controlled in this study by having an extra group who volunteered, but did not receive the treatment until after testing. However, future researchers might consider ways of motivating parents who did not volunteer. This study was conducted with a limited rural population. Similar studies should be attempted with more divergent groups. Other early intervention programs have been shown to have long-term gains when parents have been highly involved (Bronfenbrenner, 1974; Olmsted et al., 1980). Follow-up studies similar to the one described above might support these findings. Also no mention was made of whether or not any of these children had attended preschools. This should be considered as a factor in future research.

### Summary

It is evident from the research studies reviewed in this section that various types of parent involvement have positively affected children's cognitive development. Limitations in design, population, and curriculum areas indicate a need for closely controlled experiments that have a wide generalizability. With one exception (Elliott et al., 1981), parent participation in the language arts area has focused on reading. Early childhood teachers, in particular, often encourage parents to read to their children but may overlook other equally important areas, such as writing.

Future research should explore the strengths and weaknesses of different types of parent involvement and methods of motivating parents and children in various situations (Epstein and Becker, 1982). Methods of training parents and communicating with them during the period they are working with their children should also be investigated (Epstein and Becker, 1982). While several of these studies looked at differences in grade level, socioeconomic level, and educational level of parents, none examined the possibility of a parent involvement program having a differential effect for boys and girls. The possibility of sex differences in home learning needs to be explored by future researchers.

### Sex Differences in Language Arts

#### Reading and Oral Language

Any sex differences that exist in the area of language arts could be attributed to a number of factors: heredity, brain specialization, cultural attitudes toward sex roles, prenatal development, creativity, achievement, motivation, and ability. Because of a lack of research on sex differences in writing, this review will predominantly examine research on sex differences in attitudes toward reading, language achievement, and verbal ability. Though other areas of research are possibly relevant, it would be difficult to draw any definite conclusions from them in relation to this study.

The superior reading ability and achievement of young girls has been widely accepted in the field of education. A study by Downing et al. (1979) and his associates sought to discover the impact of cultural

expectations and sex role standards on attitudes toward reading using a cross-national population. The population sample included adults and children in grades one, four, eight, and twelve in the following countries: Denmark, England, Finland, Israel, Japan, and the United States. One hundred subjects were randomly selected from each age group in each country. Interviewers were trained to administer questions from two test booklets. One booklet showed objects, which were described as presents. The subjects were told to circle either the picture of the girl or boy, depending on whom they thought should receive the presents. An activity book, marked the same way, showed neuter stick figures engaged in various actions. Adult subjects were interviewed individually in their homes, whereas school-age subjects were tested in total classroom groups.

Females of all levels, in all seven countries, gave a majority of "girl" responses, indicating that they believed reading was a feminine activity. Younger boys in all countries started out with a majority of "boy" responses. "Girl" responses increased with age, particularly in the United States, England, Canada, and Israel. The results of this study indicate that cultural expectations and sex-role standards about reading differ between countries. It appeared in many countries that viewing reading as a feminine activity increases with age.

Downing and his associates reported that the stick figures may not have been psychologically neutral in all cases. Also, in Denmark, where children are rarely tested, it may have been difficult to obtain accurate responses. The use of intact classrooms may have produced some teacher bias in the results.

Using methods similar to those of Downing et al. (1979), May and Ollilla (1981) had very different findings for younger children. The researchers tested 136 children from day-care centers and public school kindergartens, ranging in age from three-and-one-half to five-and-one-half years. The data indicated that preschoolers of both sexes assess reading objects and actions to be more appropriate for boys. In addition, one girl out of sixteen reported that her father read to her, but eight boys out of eighteen said they were read to by their fathers.

Research on differences in achievement and ability of males and females was recently reviewed by Levine and Ornstein (1983). Several studies they cited indicated that girls have higher reading achievement than boys in the early 1970s, but that the gap had narrowed by 1980. Other studies supported the finding that sex differences are diminishing in most areas of achievement and attainment (Levine and Ornstein, 1983, p. 66).

Plomin and Foch (1981) reanalyzed data from several large studies that found sex differences in verbal ability in favor of girls. They found that the average differences between sexes were far greater than differences within the groups. Gender was found to account for only about 1 percent of the differences in verbal ability and samples of at least 1,000 were needed to find this difference.

In a lengthy and comprehensive review of sex differences in many fields, Maccoby and Jaklin (1974) reported that few differences appeared between sexes on ability tests over most age ranges. However, in 18 studies of children under the age of seven, girls had slightly

higher scores in eight studies, boys in only one study. These findings may be attributed to cultural differences, since the studies that found higher scores for girls were predominantly done among "disadvantaged" groups. The type of items on the test may also have had an effect if the test was not well balanced for verbal and non-verbal abilities.

Maccoby and Jaklin (1974) also reported that research up until the time of the publication of their book gave some support to the generalization of females having higher verbal ability than males. These differences were almost always non-significant, and in many populations did not exist at all. Among preschool children, only one study in the thirteen reviewed by the authors showed girls to be superior to boys in verbal abilities. From the age of 10 or 11 on, the research showed a stronger trend for girls to have higher verbal ability. For children under seven, no sex differences were found on verbal tests of creative ability. After age seven, girls usually demonstrated superior performance to boys on these tests.

Graves (1975) found sex differences when he studied the writing of 94 second graders from a middle-class community. The length of girls' writing exceeded boys' writing. However, boys wrote more on their own than girls. Differences were found on topics chosen, style of writing, spacing, letter formation, and neatness.

The large number of writing samples examined and the four phases of data collection added to the thoroughness of this study. Additional research is needed to determine whether or not these differences extend to other age groups and populations.

Bodkin (1978) found significant differences in the writing of boys and girls at third and sixth grade levels. One hundred twenty children were randomly selected from a population of 301 children. The subjects were part of four intact classrooms. All children were given writing journals and instructed to write daily for ten days on any subject they chose. The analysis revealed that girls wrote more in primary territory—about family, home, school, and interpersonal relationships. Boys wrote more in extended territory—about sports, metropolitan, world, and catastrophic events. Girls also wrote more often and at greater length, regardless of their socioeconomic level.

The differences between boys' and girls' writing topics appear to be related to cultural, sex-role attitudes more than ability. Girls' greater interest in writing could possibly be attributed to their motivation to please a teacher or parents. Further research is needed before reasons can be determined for these differences.

Even though most intelligence tests have been standardized to minimize sex biases, some research on sex differences still indicates that females are higher in verbal ability from preschool through adulthood (Deno, 1982). In critiquing studies of sex differences in cognition, Deno pointed out that many weaknesses existed in the research. First, she noted that sex differences in verbal ability generally account for only 1 percent to 5 percent of the population variance. Second, most of the research in this area has been done on white, middle-class Americans, often of high ability. Third, tests need to be developed that will measure more specific abilities to aid in the

understanding of cognitive differences between males and females. Fourth, the higher variability of male scores over female may be responsible for some measurement error that has been overlooked by researchers. Fifth, there was a lack of longitudinal studies.

In addition, most of the research has been done with high school and college students, some with elementary, but very little with pre-school and kindergarten children. Because of developmental differences it would be dangerous to generalize between age groups. Even if differences in verbal ability exist, it would be difficult to say what aspects of language arts would be affected by these differences.

### Summary

Evidence of sex differences in intelligence, verbal ability, and language achievement of young children is weak. Most researchers in this field would agree that a tendency exists for girls to have higher verbal ability than boys and that this tendency increases with age. Cultural attitudes toward sex roles in reading seem to be a salient factor influencing these differences, possibly in combination with other factors (Downing et al., 1979; Levine and Ornstein, 1983).

### Summary

Young children who have been widely exposed to print, who have seen adults writing; and who have had many drawing experiences, often start writing with no formal instruction (Gardner, 1980; Kane, 1982). Oral language seems to play an important role in the drawing/writing development of successful writers (Bissex, 1980a; Childers, 1981;

Dyson and Genishi, 1982; Graves, 1980). Talking during the writing process helps children as they learn about sound-symbol relationships reread compositions, ask questions, answer/respond, and share or tell about their writing (Calkins, 1983; Graves, 1980; Lamme and Childers, 1983). Thus, writing is often a social experience for young children (Dyson and Genishi, 1982; Graves, 1981; Lamme and Childers, 1983).

Some research implies that writing should, and often does, precede reading (Chomsky, 1981; Graves, 1982; Hall, Moretz, and Staton, 1976; Hildreth, 1936). Composing words by sound-symbol relationship may be a less complex task than decoding unfamiliar words (Chomsky, 1971). Also, more young children believe they can write than believe they can read (Graves, 1983). Children who read early almost always have a simultaneous interest in writing and spelling (Durkin, 1966).

Children are able to distinguish their writing from their drawing before they are able to produce letters or words recognizable to adults (Clay, 1980; Vukelich and Golden, 1984). After the early stages of scribbling and mock letters, writing development does not necessarily follow an orderly sequence (Clay, 1980; DeFord, 1980; Newman, 1983). Children may move back and forth over a "range" of writing stages, depending on the topic of writing and their motivation.

When children are encouraged to write independently, their spelling evolves through a predictable sequence of stages. Invented spelling usually begins with the child representing words with the initial letter of each word or syllable (Bissex, 1980a; Forester, 1980; Gentry, 1981; Paul, 1976; Read, 1971). Ending consonants and

occasionally long vowels follow in the second stage. Short vowels are used, though not always accurately, in the third stage. A transition to conventional spelling is characterized by the wide use of short vowels, blends and diagraphs, and memorized sight words. The thinking process involved in invented spelling is a higher importance than the resulting product and plays an important part in reading and writing development (Paul, 1976; Read, 1981).

Research on early writers indicates that characteristics in the home environments of these children might be successfully adapted in school settings. Early writers were exposed to printed materials and read to regularly, owned a variety of writing materials, saw adults and siblings writing, and were included in family outings (Birnbaum, 1980; Durkin, 1966; Haley-James, 1982; Hall, Moretz, and Staton, 1976; Harste, Burke, and Woodward, 1981). In addition to these factors teachers should encourage student selection of writing oral language during writing, exploration, and experimentation with writing (Dyson, 1981; Forester, 1980; Gentry, 1978; Lamme and Childers, 1983; Lickteig, 1981; Shane, 1980; Vukelich and Golden, 1984; Wiseman and Watson, 1982).

There is a tendency for girls to perform better than boys on tests of general intelligence, verbal ability, and language achievement, and for this tendency to become stronger as age increases. In addition, cultural attitudes toward sex roles appear to influence attitudes toward reading (Downing et al., 1979; Levine and Ornstein, 1983).

Although most of the research on parent involvement in language arts has involved reading activities rather than writing, the methods and findings are relevant to this study. Holsinger (1979) found that primary age children improved significantly on one measure of reading achievement when their parents helped them at home using individually prescribed activities. A second finding of Holsinger's study was that parents who participated in the home program had significantly more contacts with the school than parents who did not participate. Shuck, Ulsh, and Platt (1983) found that a combination of home reading activities, parent record-keeping on calendars, home visits, and classroom reinforcement resulted in significant differences between experimental and control groups in an inner-city school.

Research by Chomsky (1971), Graves (1982), Hall, Moretz, and Staton (1976), and Lamme and Childers (1983) shows that pre-first grade children can show a keen interest in writing if writing materials are available, parents are responsive, and there is some familiarity with letter names. Several research studies (Gentry, 1978; Lickteig, 1981; Wiseman and Watson, 1980) that positive language/literary environments, at home or at school, can enhance children's growth as writers.

Writing development also appears to be fostered when children share the processes and products of writing with others (Calkins, 1983; Dyson and Genishi, 1982; Graves, 1983). The process of sharing seems to help not only the writer, but those who listened and responded as well (Calkins, 1983).

Writing fluency, the number of words a child can write at any given sitting, can logically be tied with children's experiences in writing. It has been suggested that writing words is a good indicator of knowledge about print and writing (Clay, 1980; Hildreth, 1964).

A large body of research (Chomsky, 1971; Clay, 1980; DeFord, 1981; Durkin, 1966; Graves, 1983; Gundlach, 1981; Hildreth, 1964) shows that early informal writing experiences can have a decided impact on reading readiness. Clay's Concepts about Print test (1975) is a valid and reliable measure of reading readiness. The twenty-four item test includes items designed to measure children's knowledge about books, letters, words, and punctuation marks (see Appendix A) all indicators of reading readiness.

Several researchers (Clay, 1980; DeFord, 1980; Vukelich and Golden, unpublished manuscript) have noted that, although children do not move through a definite sequence in their writing development, there is a hierarchical nature to writing development. These studies provided the framework for the development of a valid and reliable scale (Lamme/Green scale) to measure children's writing achievement at the kindergarten level.

The research cited above points out the value of parent involvement in language arts. The present study is designed to measure the effects of parent involvement, using a specified curriculum, on children's writing achievement, writing fluency, and concepts about print. The methodology of the study will be presented in Chapter III.

### CHAPTER III THE DESIGN OF THE STUDY

This study was undertaken to examine the impact of a home composing curriculum on kindergarten children's concepts about print, writing fluency, and writing achievement. The lack of research on parent involvement in the composing/writing process and writing research pointed to a need for quantitative research on young children's writing.

#### Sample

The sample was drawn from four kindergarten classes: two at a university laboratory school and two at a public elementary school. The two classes at the laboratory school were representative of the population of the state in terms of race, sex, and SES. The public school drew from two distinctly different populations. Seventy percent of the students, predominantly white, were from middle SES families. Thirty percent of the students, predominantly black, came from lower SES families.

Seventy-four children participated in the study: 38 female and 34 male. These children were drawn from a total population of 90 children. Eight children were not included because they could not be matched with another child of the same gender on the pretest. Two other children did not participate because of parent request. Six children moved during the study or were absent when posttest data were collected.

### Study Design

A four-group, randomized-matched-subjects, pretest-posttest design was used. One covariate was used to control for initial differences in children's concepts about print.

All children in the four classrooms were administered the Concepts about Print test during the first month of school. Three writing samples were gathered from each child during the first four weeks of school. These were analyzed using a revision of the Vukelich/Golden scale (Vukelich and Golden, unpublished manuscript). One pre-test sample of writing fluency was also gathered from each child during the initial four weeks of school. These variables were later dropped as covariates because of inconsistent data collection techniques and their low correlations with posttest data.

Data from the Concepts about Print test were used to rank-order the boys and girls in each of the four classes. The top-ranked two girls formed a match pair (block), and so on, until as many girls as possible had been matched. The same procedure was followed for boys in each class. From the matched pairs children were randomly assigned to either the experimental or control group.

### The Settings

The two kindergarten classes at the public school are described together because the classes shared an open-space area and combined students for an hour of language arts instruction each day. The forty-five children in the two classes were homogeneously grouped into four

ability groups. The lowest level, a readiness group, worked primarily on listening skills, following directions, print awareness, writing letters in the air, and name writing. The teachers used the Ginn 720 series, Level 1, Module 1, with this group. The middle two groups started with Ginn 720, Level 1, Module 3, where letter recognition and beginning sounds were emphasized. The high group began with Ginn 720, Level 2. This group was introduced to two D'Nealian letter forms each day. Throughout the Ginn series there was an emphasis on literature and print awareness which these teachers stressed in their small group instruction.

During total group instruction the teachers wrote experience stories on chart paper from the children's dictation. They exposed the children to a wide variety of literature supplemented with flannelboard stories, puppets, and films. In addition, parent volunteers wrote dictated stories for individual children and children were given key vocabulary words (words that were particularly meaningful for each child).

The two kindergarten teachers at the university laboratory school used different approaches to language arts instruction. In one classroom the Alpha-Time series formed a basis for introducing letter names and sounds during the first two months of school. Language experience was also part of the language arts program in this classroom. Small and large groups of children dictated stories on topics such as trips, visitors to the classroom, special plays, etc. These charts were used to introduce basic sight words, punctuation, and comprehension. Dictated sentences were also written about individual children's pictures.

Writing was sometimes copied from the chalkboard or a chart. During the learning center time, the teacher divided the class into three groups. One group played in the courtyard under the supervision of the aide, a second group worked independently on manipulative activities, and a third group had direct instruction in math or reading. These groups rotated during the learning center time.

The other kindergarten class at the laboratory school was taught by the researcher. This classroom was organized into nine basic learning centers: math, art, dramatic play, books and listening, manipulative games, drawing and writing, unit blocks, large hollow blocks, and sand play. The latter two centers are accommodated in an outside courtyard.

Writing was frequently modeled by the teacher, university students, and volunteers in the classroom. Total group experience stories, thank-you notes, and lists were frequently dictated by the children. The teacher also wrote words to songs and chants on chart paper for the class to read together. Stories were read to the children, with or without props, from one to four times daily. The writing and drawing center was one of four centers all children were required to attend for fifteen minutes each morning. The center was supplied with markers, pencils, crayons, and various sizes and shapes of paper. The children typically wrote or drew on a topic related to the week's theme or wrote notes back and forth to each other or the teacher. In addition, some children also chose to come to the writing and drawing center during the afternoon activity times.

Beginning November 1, approximately halfway through the intervention period of this study, the laboratory school began implementing

the John Henry Martin Writing to Read program for all kindergarten and first grade children. During the two weeks of the program children in the two classes were introduced to all the computers and tape-recorded lessons on stories. The children were grouped and paired by ability during this introductory period. Each progressed through the program at an individual pace and regrouping frequently occurred. Each class used the Writing to Read lab for one hour daily. The children were typically divided into four groups and rotated centers. During the time they were in the lab each day the children used the computer to learn about the phonetic sounds in one word for a ten to fifteen minute period. After this exposure, they listened to audio-tapes for reinforcement for these sounds and wrote the word they had learned on the computer, as well as other words containing these sounds. During the next fifteen minutes the children listened to story tapes. At the last center they typed letters, words, sentences, or stories. Both the classroom teacher and a Writing to Read teacher were present in the lab each day.

It is the opinion of the researcher that the Writing to Read program had very little impact on the children in the study. For two weeks, the children attended the lab for short periods to be introduced to equipment and procedures. The average child was introduced to only three words (nine phonemes) by the end of the study.

## Instrumentation

### Concepts about Print

The Concepts about Print test (Appendix A) was designed to measure young children's book awareness and understanding of print. The purpose of this instrument is to provide the teacher with an indication of each child's level of readiness for various reading experiences. It is appropriate for use with non-readers because it involves pointing and brief verbal explanations. The test is administered individually and the 24 items are dichotomously scored.

Two tables are provided in the manual for converting raw scores to stanines. The first table, based on an urban population of 320 children ages five years, zero months, to seven years, zero months, were used in this study.

The reliability of Concepts about Print, calculated on 40 urban children aged five years, zero months to seven years, zero months, in 1968, was 0.95 (Kuder-Richardson). Test-retest reliability coefficients were reported to range from 0.73 to 0.89 for 56 Texas kindergarten children in 1978. Corrected split-half coefficients ranged from 0.84 to 0.88 for the same population (Clay 1972). The correlation between Concepts about Print and Clay's Word Reading test was 0.79, based on a population of 100 children at six years, zero months in 1966.

Concepts about Print was chosen for this study because the researcher believed that writing experiences and interaction with parents during writing would enhance children's understanding of many of the concepts covered on this test. This instrument was used by the

county public schools and the laboratory school kindergartens as part of their initial screening.

### Lamme/Green Composing Scale

Three writing samples were collected from each child in each of the four classes during August and September. The four teachers who participated in the study asked small groups of children in their classes to "Write anything you want to write." From this pilot data, the authors of the scale developed a set of 22 descriptors. These descriptors were based on studies conducted by Vukelich and Golden (unpublished manuscript) and DeFord (1980). For the present study, the descriptors ranged from scribbles to stories or letters with five or more sentences. Based on these descriptors, the authors grouped writing samples that appeared to have similar characteristics. When these groups of samples were arranged hierarchically, thirteen categories emerged. Three raters used the thirteen category scale to evaluate the pilot test writing samples. They found that several categories either overlapped or contained very few samples. As a result, the categories were condensed into six hierarchical groupings which adequately described the data. The Lamme/Green Composing Scale (Appendix B) is a description of these categories.

Three raters (two graduate students and one professor) used the Lamme/Green Composing Scale to rate the three posttest samples of writing achievement collected in December. High interrater correlations were found for the three raters ( $r = 0.94, 0.90, 0.91$ ). Validity

of the scale is based on correlations with the Concepts about Print test ( $r = 0.78$ ), writing fluency ( $r = 0.75$ ), and total percentiles for the Metropolitan Readings Test ( $r = 0.57$ ).

### Parent Response Sheets

On Friday of each week during the study, parents were asked to complete a parent response sheet (Appendix D) and return it to their children's teachers. The response sheet provided space for recording the writing activities the child did each day and persons with whom the child wrote. Additional space allowed parents to comment on other writing activities of their children.

### Procedure

A workshop introduced the parent in the experimental group to the concept of writing at home with their children, the importance of writing, and the interrelationship between writing and reading. (The workshop outline appears in Appendix E.) The workshop at the laboratory was conducted by the researcher's chairperson and the workshop at the public school was conducted by the researcher.

The laboratory workshop was held on a weekday evening and the public school workshop was held on a Saturday morning. Both sessions lasted approximately one hour. Fifteen parents attended the workshop at the laboratory school and five parents attended at the public school. Those parents who were unable to attend, but still wanted to participate

in the study, met with their children's teachers on an individual basis.

The workshops focused on the importance of informal and spontaneous writing activities parents could use with their kindergarteners. Both workshop leaders emphasized that writing should be pleasurable activity for both parents and children. Parents were told that writing need not occur at a specific time each day, but to try to write for and with their children several times each week. The workshop leaders showed samples of children's writing and explained typical categories in writing development. Parents were encouraged to accept invented spellings as a natural part of young children's writing.

At the end of the workshop a booklet was given to the parents, presenting ideas for home writing (Appendix C). Three ways parents can help young children with writing were presented and discussed. Samples of various writing activities were shown and parents shared other writing ideas they had tried.

Each parent received ten response sheets to indicate which activities were used with a child each day and to identify who did the activity with the child. Space was provided for comments and the listing of additional activities. Parents were encouraged to send their children's writing to school where it was shared. Biweekly notes (Appendix F) were sent home to parents encouraging continued participation and suggesting additional home writing ideas.

The study began the second week in October and ended the first week in December.

## Data Collection

### Writing Samples

Data were collected both before the study in August and September, and after the study in December and January. Posttest writing samples were collected in all four classrooms by an experienced university student who was taking an early childhood language art class at the time. Consistent directions were given to children in all four classes. Samples were collected in groups of eight to nine children during the second and third week of December. The time children stayed at the writing tables ranged from ten minutes to one hour, with an average time of approximately thirty minutes.

All children were given black felt-tip pens and white 8-1/2 x 11" unlined paper. They were encouraged to write for as long as they wanted. The groups were taken outside or to the cafeteria when they wrote. All samples were scored using the Lamme/Green composing scale previously described.

During orientation in August and during the first few weeks of school all children were individually administered the Concepts about Print test. The teachers administered the test at the public school. At the laboratory school the Title I teacher and aide administered the test. In December and January the Concepts about Print test was administered by the teachers at the public school and by the Title I aide and a research assistant at the laboratory school.

## Fluency

Levels of writing fluency were established by asking the children, in large groups, to "Write all the words you know how to write." If children hesitated, they were asked, "Can you write your name? Can you write any other words?" One sample was collected from each child during the first three weeks of school and again during the second week of December. Three raters counted both the number of words spelled correctly and the number of words which could be identified (including misspellings). These ratings were labeled fluency A and fluency B, respectively. Fluency B was dropped during analysis because of its high correlation with fluency A ( $r = 0.93672$ ).

The same test of fluency is currently used as part of the kindergarten screening for the public schools in the county where the study was conducted. In this fluency test, only the number of words spelled correctly is counted.

## Data Analysis

The first step in the analysis was to determine correlations between pretest and posttest data. It was found that the Concepts about Print test given in September had the highest correlations with a posttest data. Therefore, only the Concepts about Print test was used as a covariate.

The independent variables in this study were gender, class, and treatment (the home composing curriculum). The dependent variables included Concepts about Print, three measures of writing level (rated using the Lamme/Green scale), and writing fluency.

The significance of observed mean differences between treatment, classes, and gender groups and the effect of group interactions was tested with a general linear model procedure, described in more detail in Chapter IV. An overall alpha level of 0.10 was used for testing effects on the three compositional writing measures, so that for the compositional writing sample at each of the three occasions, an alpha level of 0.033 was used. An alpha level of 0.05 was specified for testing effects on Concepts about Print and writing fluency.

In Chapter IV the results of these analyses are presented and answers to each of the research questions is discussed.

## CHAPTER IV RESULTS

### Introduction

The purpose of this study was to determine the impact of a home composing curriculum on kindergarten children's concept about print, writing fluency, and writing achievement. Children from four classrooms were rank-ordered and matched, based on pretest results from Clay's (1980) Concepts about Print test. Approximately half of the children in each of the four classrooms participated in the home composing curriculum (treatment). The treatment involved parents writing at home with their children, following guidelines described in a parent workshop (Appendix E) and writing composing booklet and the sharing of home writing in the classroom. The control group participated in outside play with a classroom aide during the sharing of home writing products, then shared science materials while the treatment group played outside. Following the intervention period, all children in the four classes were administered Clay's Concepts about Print test (1975). Three writing achievement samples and one writing fluency sample were also collected from each child.

To control for initial differences in the student population data were analyzed by analysis of covariance, using Concepts about Print as the covariate. This procedure was conducted for each of the five dependent variables: Concepts about Print, writing fluency, and the three writing achievement posttests.

The first General Linear Model procedure tested for interactions between the covariate and treatment, using the following model:

$$\begin{aligned}
 Y_i^! &= a_0 + a_1 \text{CAP} + a_2 \text{GEN} + a_3 \text{CL} + a_4 \text{TRT} \\
 &+ a_5 (\text{GEN})(\text{TRT}) + a_6 (\text{TRT})(\text{CL}) + a_7 (\text{GEN})(\text{CL}) \\
 &+ a_8 (\text{GEN})(\text{TRT})(\text{CL}) + a_9 (\text{CAP})(\text{TRT}) + \text{ERROR}
 \end{aligned}$$

where

$Y_i^!$  =  $i^{\text{th}}$  dependent variable and  $i$  ranges from 1 to 5  
 for the five separate variables: posttest 1, posttest  
 2, posttest 3, Concepts about Print (posttest), and  
 fluency

CAP = Concepts about Print (pretest)

GEN = gender

CL = class

TRT = treatment

$a_0$  = the intercept and  $a_1$ - $a_9$  are the regression coefficients

When no covariate by treatment interaction was found, the following reduced model was used:

$$\begin{aligned}
 Y_i^! &= a_0 + a_1 (\text{CAP}) + a_2 (\text{GEN}) + a_3 (\text{CL}) + a_4 (\text{TRT}) \\
 &+ a_5 (\text{GEN})(\text{TRT}) + a_6 (\text{TRT})(\text{CL}) + a_7 (\text{GEN})(\text{CL}) \\
 &+ a_8 (\text{GEN})(\text{TRT})(\text{CL}) + \text{ERROR}
 \end{aligned}$$

Table 1 summarizes the pretest means and standard deviations for the three dependent variables: gender, treatment, and class. As can be seen from the table, girls began at a slightly higher level than boys. The experimental group was slightly higher than the control and classes 1 and 2 were significantly ( $\alpha < 0.01$ ) higher than 3 + 4. Class 1 also had much wider variance than the rest of the classes.

Table 2 summarizes the correlation coefficients of all pretest and posttest measures. The Concepts about Print pretest was significantly correlated with all five posttest measures. Therefore, it was considered to be a good choice for the covariate. Each of the writing achievement posttests was highly correlated to the other two, indicating that they measured the same construct.

#### Treatment Effects on Concepts about Print

The first question to be answered from the statistical analysis was: Were the observed differences in mean levels of the Concepts about Print test, statistically significant (at the alpha level  $\leq 0.05$ ) for children in the experimental and control groups? Results of the analysis of covariance (ANCOVA) reported in Table 3 indicate that there was a significant difference between the two treatment groups on the Concepts about Print test. There were also significant differences among the four classes.

Least squares means were used in this analysis to include the effect of the covariate. Table 4 summarizes the least squares means on the Concepts about Print test. The treatment section shows that the mean of the treatment group was higher than the mean of the non-treatment

Table 1. Concepts about Print (pretest) means and standard deviations

	Mean	Standard Deviation
Gender:		
Male	11.925	4.896
Female	12.579	5.736
Treatment:		
Experimental	12.605	5.320
Control	11.900	5.320
Class:		
1	14.864	5.258
2	15.364	3.140
3	9.313	3.754
4	7.833	4.260

Table 2. Summary of correlation coefficients of the pretest with the five dependent variables

	CAP <sup>a</sup> Pretest	WA <sup>b</sup> Posttest 1	WA Posttest 2	WA Posttest 3	Writing Fluency	CAP Posttest
Concepts about Print Pretest	1.0000	0.6405	0.5907	0.5808	0.5895	0.7648
Writing Achievement Posttest 1	0.6405	1.0000	0.8296	0.7309	0.7695	0.6718
Writing Achievement Posttest 2	0.5907	0.8295	1.0000	0.7778	0.7334	0.6505
Writing Achievement Posttest 3	0.5808	0.7309	0.7779	1.0000	0.7453	0.6332
Writing Fluency	0.5895	0.7695	0.7334	0.7453	1.0000	0.5654
Concepts about Print Posttest	0.7648	1.0000	0.6718	0.6505	0.6332	0.5654

Note:  $p < 0.001$ .

<sup>a</sup>CAP = Concepts about Print.

<sup>b</sup>WA = Writing Achievement.

Table 3. Summary of ANCOVA for Concepts about Print

Source	DF	Type IV SS	F	P
<u>Concepts about Print</u>	1	414.08	53.61	0.0001
Gender	1	17.69	2.29	0.1357
Class	3	69.02	2.98	0.0384*
Treatment	1	35.03	4.54	0.0375*
Gender x Treatment	1	4.90	0.63	0.4291
Treatment x Class	3	45.60	1.97	0.1275
Gender x Class	3	11.54	0.50	0.6891
Gender x Treatment x Class	3	16.31	0.70	0.5569

\*p &lt; 0.05.

Table 4. Summary of least squares means for Concepts about Print

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<u>Concepts about Print</u> Least Squares Means	
Gender	
Male	13.7975
Female	14.8032
Class	
1	14.5011
2	13.7754
3	15.8958
4	13.0291
Treatment	
Treatment	15.0176
Non-treatment	13.5830

---

group. Children who wrote at home and shared their writing at school had higher mean scores on this measure of reading readiness. Follow-up analysis using the Scheffé formula showed that class 2 was significantly lower than class 1 and class 4 was significantly lower than classes 1 and 3. The mean score for females was slightly higher than the mean score for males.

#### Treatment Effects on Writing Fluency

The second question to be answered from the statistical analysis was: Were the observed differences in mean levels of writing fluency statistically significant for children (at an alpha level  $\leq 0.05$ ) for children in the experimental and control groups?

The data in Table 5 indicate that there was a significant difference between the two treatment groups on the writing fluency measure.

Table 6 summarizes the least squares means for writing fluency. The treatment section shows that the mean of the treatment group was higher than the mean of the non-treatment group. Classes 2 and 3 were lower than classes 1 and 4. The mean score for females was slightly higher than the mean score for males.

#### Treatment Effects on Compositional Writing Achievement

The third question to be answered from the statistical analysis was: Were the observed differences in mean levels of writing achievement statistically significant (at an alpha level  $\leq 0.05$ ) for children

Table 5. Summary of ANCOVA for Writing Fluency

Source	DF	Type IV SS	F	P
<u>Concepts about Print</u>	1	329.4428	16.97	0.0001
Gender	1	23.3577	1.20	0.2775
Class	3	96.4730	1.66	0.1857
Treatment	1	107.0356	5.51	0.0225*
Gender x Treatment	1	45.8289	2.36	0.1302
Treatment x Class	3	12.6176	0.22	0.8835
Gender x Class	3	139.4192	2.39	0.0771
Gender x Treatment x Class	3	42.9609	0.74	0.5373

\*p < 0.05.

Table 6. Summary of least squares means for Writing Fluency

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Writing Fluency Least Squares Means	
Gender	
Male	5.8072
Female	6.9831
Class	
1	7.8863
2	5.1477
3	5.4623
4	7.0843
Treatment	
Treatment	7.6728
Non-treatment	5.1172

---

in the experimental and control groups? The three measures of writing achievement considered were three posttest writing samples evaluated using the Lamme/Green Composing Scale. Three separate univariate analyses of covariance were constructed to address this question treating the posttest writing score from occasions 1, 2, and 3 as the dependent variables. Results related to these analyses were reported in Tables 7-12.

#### Effects of Class, Gender, and Interactions

The preceding analyses of covariance also allowed the examination of the effects of class, gender, and the interactions of these factors with treatment. The following results can be summarized from these analyses:

1. Observed mean differences for the four classes were statistically significant in only the second and third posttest measures of compositional writing achievement (see Tables 9 and 11). In both cases, a follow-up analysis (with Scheffé a procedure) revealed that the class 2 mean was significantly lower than means for classes 1 and 4. On the second posttest, the class 2 mean was also significantly lower than the mean for class 3.
2. With respect to Concepts about Print, the observed mean differences among the four classes were statistically significant. Follow-up analyses indicated

Table 7. Summary ANCOVA for Writing Achievement—first posttest

Source	DF	Type IV SS	F	P
<u>Concepts about Print</u>	1	183.82	24.29	0.0001
Gender	1	25.01	3.30	0.0753
Class	3	21.64	0.95	0.4225
Treatment	1	41.36	5.47	0.0236*
Gender x Treatment	1	3.26	0.43	0.5144
Treatment x Class	3	17.49	0.77	0.5162
Gender x Class	3	67.17	2.96	0.0415*
Gender x Treatment x Class	3	15.37	0.68	0.5703

\*p < 0.05.

Table 8. Summary of least squares means for Writing Achievement—  
first posttest

		Posttest 1 Least Squares Means
Gender		
	Male	3.0455
	Female	3.4782
Class		
	1	3.3956
	2	2.9459
	3	3.2460
	4	3.4622
Treatment		
	Treatment	3.5478
	Non-treatment	2.9760
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Gender	Class	
M	1	2.6648
M	2	2.8229
M	3	3.5017
M	4	3.1926
F	1	4.1264
F	2	3.0688
F	3	2.9855
F	4	3.7319

Table 9. Summary of ANCOVA for Writing Achievement—second posttest

Source	DF	Type IV SS	F	P
<u>Concepts about Print</u>	1	266.12	29.29	0.0001
Gender	1	0.01	0.00	0.9702
Class	3	113.52	4.16	0.0102*
Treatment	1	2.06	0.23	0.6359
Gender x Treatment	1	41.73	4.59	0.0367*
Treatment x Class	3	19.45	0.71	0.5516
Gender x Class	3	45.22	1.66	0.1855
Gender x Treatment x Class	3	1.75	0.06	0.9731

\*p < 0.05.

Table 10. Summary of least squares means for Writing Achievement—  
second posttest

		Posttest 2 Least Squares Means
Gender		
	Male	3.2789
	Female	3.2884
Class		
	1	3.4931
	2	2.4958
	3	3.4194
	4	3.7264
Treatment		
	Treatment	3.2444
	Non-treatment	3.2229
-----		
Gender	Treatment	
M	Treatment	3.0716
M	Non-treatment	3.4864
F	Treatment	3.2416
F	Non-treatment	2.9594

Table 11. Summary of ANCOVA for Writing Achievement—third posttest

Source	DF	Type IV SS	F	P
<u>Concepts about Print</u>	1	212.24	23.76	0.0001
Gender	1	10.17	1.14	0.2907
Class	3	91.96	3.43	0.0230*
Treatment	1	20.42	2.29	0.1363
Gender x Treatment	1	2.27	0.25	0.6164
Treatment x Class	3	29.97	1.12	0.3501
Gender x Class	3	23.40	0.87	0.4628
Gender x Treatment x Class	3	29.74	1.11	0.3537

\*p < 0.05.

Table 12. Summary of least squares means for Writing Achievement—  
third posttest

		Posttest 3 Least Squares Means
Gender		
Male		2.9293
Female		3.1935
Class		
1		3.3244
2		2.4638
3		2.9553
4		3.5022
Treatment		
Treatment		3.2513
Non-treatment		2.8715

that class 2 was significantly lower than classes 1 and 3.

3. None of the observed differences between means of males and females were statistically significant on any of the five measures.
4. There was a significant gender x class interaction on the first posttest of writing achievement (see Table 7). The nature of this interaction is depicted in Figure 2. The girls in classes 1 and 4 scored significantly higher than the boys in these two classes.
5. There were no significant class x treatment or class x treatment x gender interactions on any of the five measures.

#### Summary

The results of the data analysis were presented in this chapter. Significant ( $\alpha = 0.05$ ) treatment effects were found using the following measures: Concepts about Print, writing fluency, and writing achievement—first posttest. There were significant ( $\alpha = 0.05$ ) class differences on writing achievement—second and third posttests, and Concepts about Print. No significant ( $\alpha = 0.05$ ) gender differences were found on any of the five measures. The following chapter presents findings, gives conclusions, and makes recommendations for parents, teachers, and researchers.

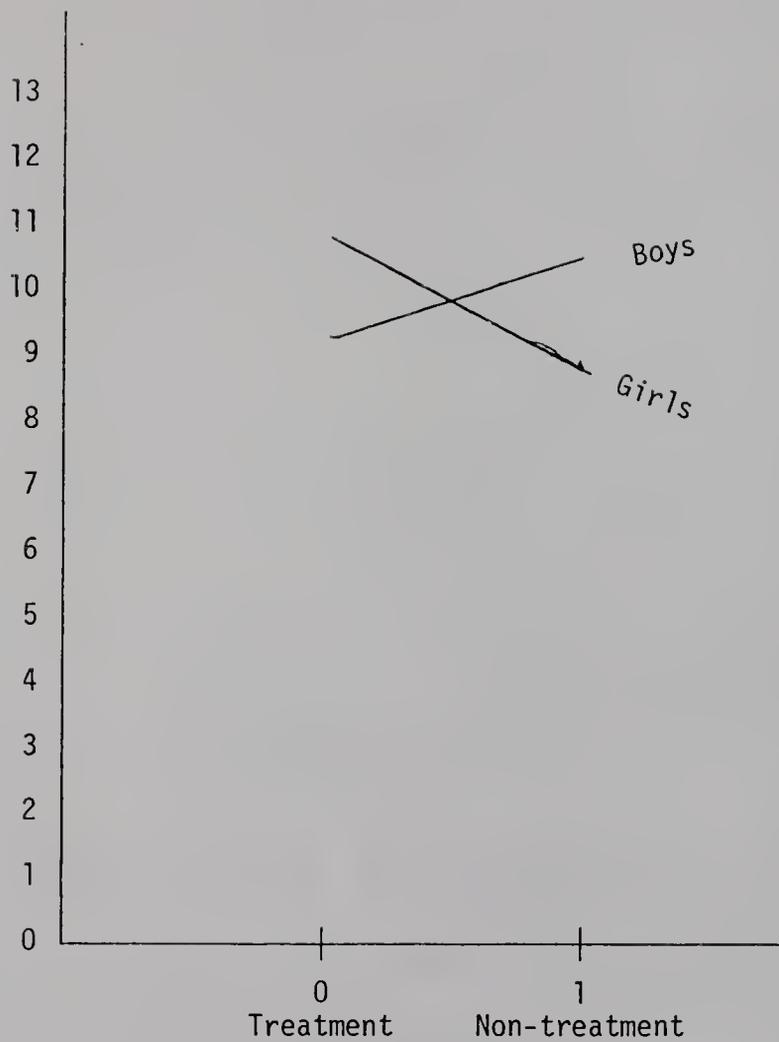


Figure 1. Writing Achievement—second posttest, gender x treatment interaction

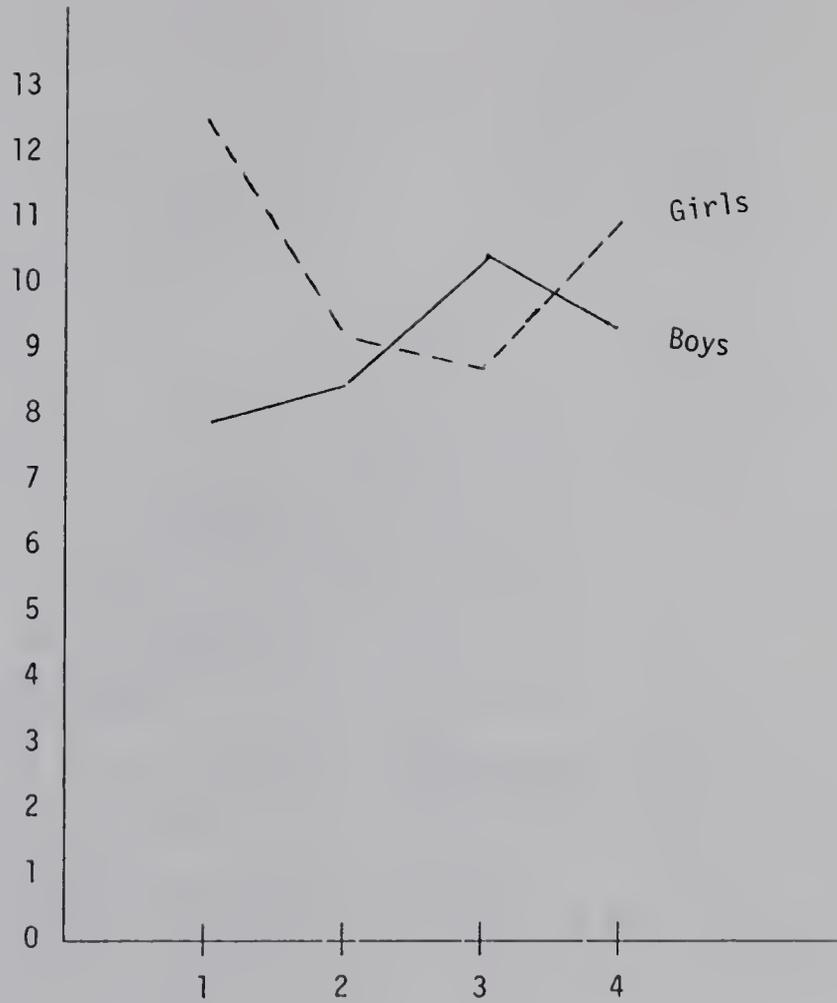


Figure 2. Writing Achievement—first posttest, gender x class interaction

CHAPTER V  
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

This chapter will present a summary of the research problem and findings, conclusions based on these findings, and recommendations for educators and researchers.

Summary of the Problem

The purpose of this study was to investigate the effectiveness of a home composing curriculum on kindergarten children's writing achievement, writing fluency, and concepts about print. Specifically, the following questions were addressed by the research:

1. Would children who received the home composing curriculum display a higher mean score for reading readiness than children in the control group when reading readiness was measured by the Concepts about Print test?
2. Would children who received the home composing curriculum display a higher mean level of writing fluency than children in the control group when they were asked to write as many words as they knew how to write?
3. Would children who received the home composing curriculum display a higher mean level of writing

achievement than children in the control group when writing achievement was measured by three separate posttest writing samples, evaluated by the Lamme/Green composing scale.

4. Would there be differences between the mean scores of kindergarten girls and kindergarten boys who were exposed to the home curriculum on any of the five measures?
5. Would there be any interactions between gender and treatment on any of the five measures?
6. Would there be any interactions between class and treatment on any of the five measures?
7. Would there be any interactions between gender and class on any of the five measures?
8. Would there be differences among the mean scores of the four classes on any of the five measures?
9. Would there be any three-way interactions among class, treatment, and gender on any of the five measures?

### Findings and Conclusions

This study analyzed the effectiveness of a home composing curriculum on kindergarten children's writing achievement, concepts about print, and writing fluency. This section presents a discussion of the findings and conclusions derived from the research results.

### Concepts about Print

Question 1, postulating significant ( $\alpha \leq 0.05$ ) differences between groups on Clay's Concepts about Print test was affirmed by the data analysis. When parents wrote at home with their children, using the home composing curriculum designed for this study, their children's scores on the Concepts about Print test were higher than those of the children whose parents did not write with them.

Although this study did not analyze differences on individual items of the test, it can be concluded that children's awareness of letters, words, sentences (the general categories of the test) were influenced by their home writing experiences.

### Writing Fluency

Question 2, postulating significant ( $\alpha \leq 0.05$ ) differences between groups on writing fluency was affirmed by the data analysis. When asked to write as many words as they could write, children in the treatment group wrote significantly more words than children in the non-treatment group.

When parents used the home writing curriculum with their children, they modeled writing whole words and sentences and encouraged their children to write independently. These parents appeared to be responsive to their children's writing and acceptant of invented spellings. It is likely that these factors had an impact upon the children's writing fluency.

### Writing Achievement

Three writing samples from each child were analyzed to determine the effectiveness of the home composing curriculum on writing achievement. These three samples have been referred to as posttest 1, posttest 2, and posttest 3.

Compositional writing is difficult to measure, particularly with very young children. The writing skills of many kindergarten children are just beginning to develop and there is often wide variation in the types of writing they do from day to day. This variation seems to be affected by peers, adults in the classroom, self-motivation, or other outside influences. These observations led the researcher to conclude that one or two samples of compositional writing achievement might not adequately represent each child's ability. Therefore, three samples of compositional writing achievement were collected from each child.

Results of the data analysis revealed significantly ( $\alpha < 0.05$ ) different mean scores between the treatment and non-treatment groups on posttest 1. There were no significant differences between the mean scores of the treatment and non-treatment groups on posttest 2 and posttest 3.

Several factors may have affected these results. The three writing samples were collected from each class during the week prior to winter vacation. The children in the treatment group who were doing the most writing at that time may not have pursued the task with as much diligence during the second and third writing sessions as they did during the first. This would have had the effect of bringing down

some of the extremely high scores. In fact, a visual examination of the raw scores revealed that the scores of twenty children in the treatment group were lower on either the second or third posttest, or both.

The experience of taking the first posttest may have had a positive effect on children in the control group, at least on the second posttest as indicated by their scores—on posttests 2 and 3 (see Appendix H). The combination of some treatment children writing at a lower level and some children in the control group writing at a higher level may have contributed to the nonsignificant differences between the groups or posttests 2 and 3.

### Class Differences

Significant ( $\alpha \leq 0.05$ ) differences were found among the four classes on three of the five dependent variables; writing achievement—posttest 2, writing achievement—posttest 3, and Concepts about Print. Pairwise comparisons between classes were calculated using Scheffé's formula.

On writing achievement—posttests 2 and 3, there were significant differences between the following pairs of classes: 1 and 2, 3 and 2, and 4 and 2. In addition, there was a significant difference between classes 3 and 4 on posttest 3.

The writing achievement posttests were a measure of the children's independent composition. The children were asked to "Write anything you want to write." The university student who administered

the test gave minimal help with spelling and did not take dictation. The language arts curriculum in class 2 provided almost no opportunity for independent composition. Because these children were not accustomed to writing without assistance, their mean scores were lower than those of the other classes on all three writing achievement posttests, and significantly lower on posttests 2 and 3.

In addition, class 2 had the lowest number of parent response sheets (only three out of eleven parents returned them) and the least amount of sharing of any of the four classes (see Table 13). These factors were likely to have contributed to the differences between class 2 and the other three classes.

The significant differences between classes 3 and 4 on writing achievement posttest 3 cannot be explained. Both classes were combined for language arts and shared an open classroom.

### Gender Differences

Question 4, postulating significant ( $\alpha \leq 0.05$ ) differences between boys and girls on any of the dependent variables was answered negatively. The results of the data analysis indicated that the treatment was equally effective for both girls and boys.

### Two-way Interactions

The results of the data analysis revealed a significant ( $\alpha \leq 0.05$ ) interaction between gender and treatment on writing achievement—second posttest. Girls in the treatment group scored higher than boys, whereas boys in the non-treatment group scored higher than girls.

Table 13. Total number of sharing episodes per class

Classes	Number of Sharing Episodes	Children in Sharing Groups
1	64	11
2	33	11
3	70	8
4	72	8

Table 14. People with whom children wrote (all classes)

	Percentage
Mother	55
Father	10
Sister	6
Brother	1
Grandparent	2
Alone	23
Other Person	2

Table 15. People with whom children wrote (by class)

	Percentage			
	Class 1	Class 2	Class 3	Class 4
Mother	36	47	68	57
Father	12	3	7	16
Sister	8	1	5	6
Brother	1	1	1	1
Grandparent	1	3	1	5
Alone	41	41	17	21
Other Person	1	4	1	4

Of the total number of writing episodes reported on the parent response sheets, girls wrote 65 percent and boys wrote 35 percent. This indicates that girls who participated in the home composing curriculum wrote more often than boys who participated.

There was also a significant ( $\alpha \leq 0.05$ ) interaction between class and gender on writing achievement—first posttest. Girls scored higher than boys in classes 1 and 4. In both of these classes there were several girls who wrote frequently and at great length both in class and at home.

In class 1, parents of five boys and five girls returned the parent response sheets. Almost an equal number of writing episodes were reported. Parents reported that the girls wrote alone (77 times out of 163 episodes) more often than boys (56 times out of 165 episodes). This could have contributed to the girls' ability to rank higher than boys on a test of independent writing.

This teacher's observational data related to the sharing sessions and the data from the parent response sheets indicated that the five girls in the treatment in this group class wrote and shared letters and stories. The boys tended to write labels, signs, and captions more often than longer types of writing. These experiences could have contributed to the differences between girls and boys on writing achievement posttest.

#### Assistance during Writing

Children in this study wrote with their mothers more often than they wrote alone or with anyone else (see Table 14). The following list

reports the percentage of time the children wrote alone or with another person as reported on the parent response sheets (Appendix D).

There were large differences among the four classes concerning whom the children wrote with, or whether they wrote alone (see Table 15).

### Type of Writing Children Did at Home

The children in the study showed definite preferences concerning the type of writing activities they chose. The following list reports the percentage of time each writing activity was reported on the parent response sheets (Appendix D).

### Parent Response Sheets

Twenty-four of the thirty-two parents of children in the treatment group (75 percent) returned the parent response sheets. Those parents who returned the response sheets did so almost every week of the study. The breakdown per class is illustrated in Table 17.

It should be noted that teacher records indicate that some children, whose parents did not complete the response sheets, brought in writing to share.

### Summary

The following conclusions were derived from the results of this investigation. They should be considered in terms of the procedures and population of this study.

1. A home composing curriculum combined with sharing writing in school can be used to enhance some

Table 16. Types of writing children did at home

Type	Percentage	Type	Percentage
Notes and Letters	28	Cards	10
Lists	22	Captions	9
Books and Stories	12	Calendars	4
Signs and Labels	11	Journals	4

Table 17. Number of response sheets returned

	Class 1	Class 2	Class 3	Class 4
Number of children in treatment group	11	11	8	8
Number of parents who returned response sheet	8	3	6	5

kindergarten children's readiness for reading, as measured by Clay's Concepts about Print test. This supports previous research findings pertaining to parent involvement in reading readiness (Chomsky, 1971; Clay, 1980; DeFord, 1981; Durkin, 1966; Graves, 1983; Gundlach, 1981; Hildreth, 1964).

2. A home composing curriculum combined with sharing writing in school can be used to increase children's writing fluency.
3. A home composing curriculum combined with sharing writing in school may have some impact on children's writing achievement.
4. Parents are willing to work with their children at home when teachers provide suggestions and reinforce their efforts. This supports the findings of Holsinger (1979).
5. Teachers can provide the momentum for parents to assist their children with writing at home by providing parent workshops, activities for parents, and follow-up reinforcement. These findings support the research of Holsinger (1979), Olmsted et al. (1980), and Shuck, Ulsh, and Platt (1983).

#### Recommendations

Educators commonly support parent involvement in the schools. The findings from this study extend the value of parent involvement to

the area of writing/composing. This section will cover recommendations for researchers, administrators, teachers, and parents based on the results of the present study.

### Recommendations for Researchers

The population of this study was limited to predominantly middle-class kindergarten children. Snow (1983) indicates that differences in reading achievement of middle and lower SES children may be attributed to availability of literacy materials and the types of oral language transactions in the homes. Considering the importance of oral language to young children's writing processes (Bissex, 1980b; Childers, 1981; Dyson and Genishi, 1982; Graves, 1980), it seems that future studies on parent involvement during composing should include more lower SES families. It would also be important to examine the impact of oral language during parent-child writing sessions.

The present study did not address the effects of parental teaching style on children's writing. Hoffman and McCully (1984) found that parent interaction with four-year-olds during composing were often rigid and directing. Ethnographic studies need to be conducted to determine the impact of individual differences in the ways parents and children respond to writing tasks. Additional research is also needed to determine whether or not parents of older children interact in the same way when their children are composing and the extent to which training influences parent-child interactions during composing. The present study suggests that training helps to motivate positive communication between parents and children during composing.

DeFord (1981) found that the language arts environments in three separate first grade classes had a decided impact on the way children learned to read and write. The impact of teaching style, teacher attitude (Lickteig, 1981), classroom management, and language arts curriculum may also have an effect on the writing of children participating in a home composing curriculum. It seems possible that classroom factors could interact with a home composing curriculum to produce various outcomes. For example, if children are encouraged to invent spellings in the classroom it seems likely that they will be more likely to invent spellings in their home writing if their parents are trained to accept these spellings. The possibility of such interactions should be pursued by future researchers.

The topic of invented spellings seemed to be important to the composing development of many children who participated in this study (see Appendix G). The process of invented spelling allows young children to write their own messages much earlier than they would be able to if they were expected to spell all words correctly (Bissex, 1980b; Gentry, 1981; Paul, 1976). Constructing spelling also helps children learn sound-symbol relationship necessary for decoding in reading (Read, 1971). Paul (1976) found that when the children in her kindergarten class invented spellings, they became more independent writers. Because invented spelling and independent writing are important processes in literacy development, it is recommended that future research investigate strategies that promote those processes.

In addition, the results of this study suggest several specific recommendations. The children in this study should be followed to see

if their interest in writing continues and whether they maintain their advantage as writers. It would also be important to see if the siblings of children in this study become more proficient writers than their peers. Studies of this nature would provide information on the impact that parent training and involvement had on these families.

The Lamme/Green scale provided a rough assessment of compositional writing achievement for kindergarten children. The scale has limited validity and reliability based on the population used in this study. Continued research on young children's writing will necessitate a revision of the Lamme/Green Composing Scale to make it more sensitive to children's writing. Additional methods for assessing children's writing should also be explored.

#### Recommendations for Teachers

In the present study, children shared their home writing at school three times each week. Writing research shows that the sharing of writing in process is important for writers at all stages of development (Calkins, 1983; Childers, 1981; Graves, 1983; Lickteig, 1981). The sharing of writing provides a forum for children to exchange writing ideas, ask questions about each other's writing, and give and receive "written gifts." Therefore, it is recommended that teachers set aside time each week for the specific sharing of writing.

Holsinger (1979) found that an individualized curriculum was important for meeting the needs of the children and families in her study. The home composing curriculum used in this study allowed parents

and children flexibility in choosing activities (letters, lists, etc.), types of writing (dictation, independent writing), and the amount of time they spent writing together. The flexibility of the curriculum seemed to be important for children who varied in their interests and writing abilities.

Vukelich and Golden's (unpublished manuscript) research exemplified the writing progress that can be made by young children in the school year. Teachers need ways of assessing children's writing to see the progress they have made and areas that need strengthening. The present study incorporated two assessment instruments—the Lamme/Green Composing Scale and writing fluency. Teachers might consider periodically assessing children's writing using one of these instruments.

In this study parents were encouraged to write at the same time as their children. Teachers, as well as parents, should model writing techniques by writing with children (Forester, 1980; Newman, 1983; Tway, 1980). Calkins (1983) explained that children can learn much about the writing process by observing their teachers' writing.

In addition to suggesting a wide variety of writing opportunities for home writing, teachers should provide children with these experiences in the classroom. The children in this study wrote notes and letters, lists, books, signs and labels, and cards. A writing center, including many writing materials, might provide appropriate oral and written language experiences. Teachers could facilitate writing by talking with children as they write (Dyson, 1981) and encouraging invented spellings.

### Recommendations for Parents

Several of the suggestions for teachers are also appropriate for parents. Parents, as well as teachers, could encourage their young children to write by writing for them, iwth them, and to them, and by accepting their invented spellings. Parents might also suggest that their children explore some of the most popular types of writing of children in this study (i.e., notes and letters, lists, books, signs, and labels, cards). In addition, a variety of writing materials could be provided at home, as well as at school.

### Recommendations for Administrators

The results of this study and other research indicate that teachers' attitudes toward writing (Lickteig, 1981) and parent involvement (Becker and Epstein, 1982) have a critical influence on the success of a parent involvement program. Administrators could provide inservice education for teachers which would support the establishment of home/school programs in writing. They might also arrange inservice education for teacher and parents on children's writing development, particularly with regard to the influence of independent writing and inveted spelling upon children's development toward literacy.

### Summary

This study differed in the following ways from any of the research on which it was based: (1) the home composing curriculum was developed specifically for this study; (2) teachers sent regular letters home to remind parents of the activities and reinforce activities they

had done with their children; (3) a special time for sharing home writing was incorporated into the school day; (4) the composing curriculum was very flexible and could be individualized to meet the needs of the children and parents; (5) children and parents could choose their activities and do as many or as few as they wanted to.

### Summary

In this study parents utilized a variety of methods to facilitate their children's compositional writing. Parents learned ways to work with their children through workshops, a booklet, and letters from teachers. In addition to writing at home, the children in the treatment group shared their writing at school three times each week.

Children were drawn from four kindergarten classes to participate in the study. Treatment and control groups were matched based on their scores on the Concepts about Print test, administered prior to the study.

The impact of the home composing curriculum was assessed by three instruments: the Concepts about Print test (a measure of readiness), writing fluency (the number of words each child could write), and the Lamme/Green Scale of Children's Development in Composition. Data were analyzed by analysis of covariance, using Concepts about Print as the covariate. The treatment group scored significantly higher than the control group on Concepts about Print, writing fluency, and the first posttest of writing achievement. There were no significant differences on the second two posttests of writing achievement.

Parent response sheets provided additional information about the nature of the children's writing and people with whom the children wrote.

The results of this study indicate that when parents write at home with their children and this writing is shared at school, children improve in reading readiness as measured by the Concepts about Print test, and writing fluency (the number of words they can write). The results also suggest that home writing may have an impact on writing achievement.

APPENDIX A  
CONCEPTS ABOUT PRINT

Concepts about Print

Scoring Standards

Name: \_\_\_\_\_ Date: \_\_\_\_\_ School: \_\_\_\_\_

ITEM	PASS	SCORE
1.	Front of book.	
2.	Print (not picture).	
3.	Points top left at "I took. . . ."	
4.	Moves finger left to right on any line.	
5.	Moves finger from the right-hand end of a higher line to the left-hand end of the next lower line, or moves down the page.	
6.	Word by word matching.	
7.	Both concepts must be correct, but may be demonstrated on the whole text or on a line, word, or letter.	
8.	Verbal explanation, or pointing to top of a page, or turning the book around.	
9.	Score for beginning with "The" and moving right to left across the lower line and then the upper line, OR, turning the book around and moving left to right in the conventional movement pattern.	
10.	Any explanation which implies that line order is altered.	
11.	Says or shows that a left page precedes a right page.	
12.	Notices at least one change of word order.	
13.	Notices at least one change in letter order.	
14.	Notices at least one change in letter order.	
15.	Says "Question mark?" or "A question," or "Asks something."	
16.	Says "A stop," or "It tells you when you've said enough."	
17.	Says "A little stop," or "a rest," or "a comma."	
18.	Says "That's someone talking."	

ITEM	PASS	SCORE
19.	Locates two capital and lower case pairs.	
20.	Points correctly to both yes and no.	
21.	Locates one letter and two letters on request.	
22.	Locates one word and two words on request.	
23.	Locates both a first and a last letter.	
24.	Locates one capital letter.	

APPENDIX B  
LAMME/GREEN COMPOSING SCALE AND SAMPLES

Lamme/Green Scale of  
Children's Development in Composition

1. A few letters or numbers  
A small string of letters  
Scribbles  
Mock letters  
Nothing readable except name
2. Letters  
Repeated group of letters  
Mock letters read as words  
One memorized word or copied word  
Incomplete alphabet or list of numerals  
Scribbles and mock letters with the above  
Unreadable long strings of letters
3. Complete alphabet and nothing else or one word  
Numbers 1-10  
Two or more words  
Word boundaries  
Mock words in a long list (some relationship to word)  
Very hard to read message (fades out)  
Telephone number
4. Five or more words and complete alphabet or numerals over 10  
List of words with no mock words  
Simple message (I love you)
5. Longer message or original message (My brother knocked me out of bed)  
No word lists  
List of short sentences
6. Long story with plot, 5 or more sentences  
Longer letter, sticks to subject. Not just list of unrelated sentences.

Ignore name  
reversals  
play with print

Level 1

Do  
r  
f  
o  
d

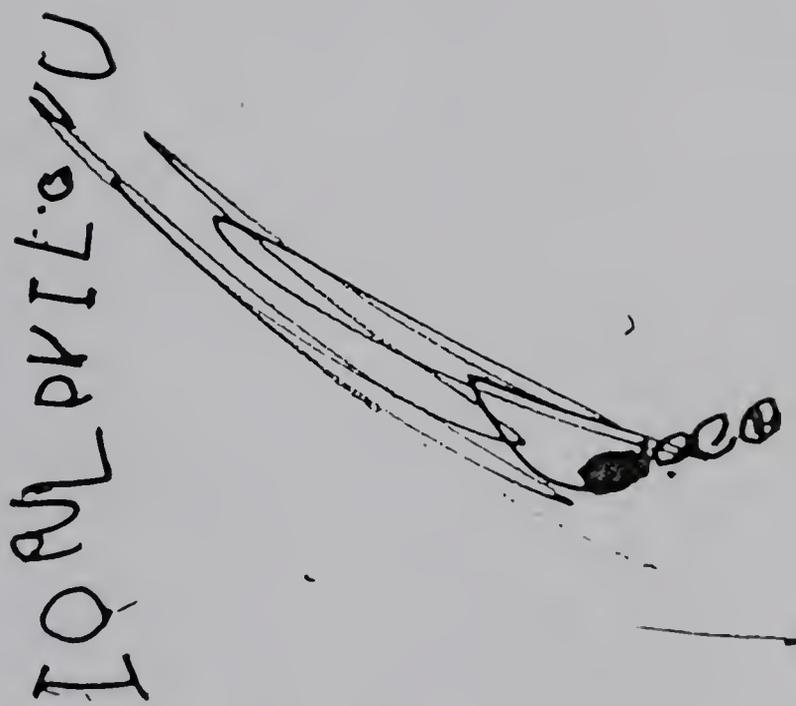
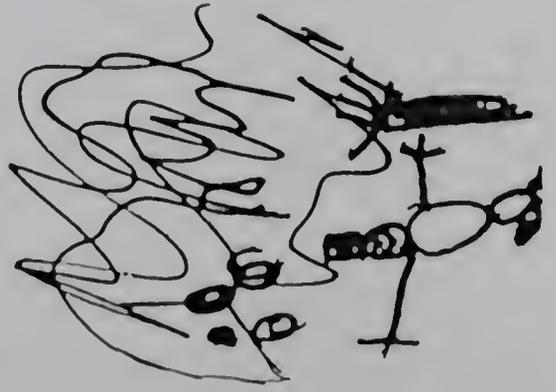
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QZEEIIFAEAN

DEAF KCEILOVVJOP  
IY2HVANGS;OPUF  
HUADTE  
LOVPEFA IQALPRILOU



KATIE  
WITT

I  
LOVE SANDY  
MOM BILL SANDY

Level 5

KATE LEWIS  
WAM WAS WOKING  
DAON THE WOOD  
AND STH SOLA  
ISKERM HSOP  
STIE WAND IN  
THE HSOP  
AND  
BIDA  
THE END

Level 6

JENNIFER  
TO CONNIE FROM J.J.S.

DEAR CONNIE  
I LOVE YOU  
I HOP THAT YOU  
LOVE ME  
I AM

SRE  
TET

IKRI  
I N  
THE  
MORNES

I RELE  
LOVE YOU  
CONNIE  
I HOP  
TAK  
YOU

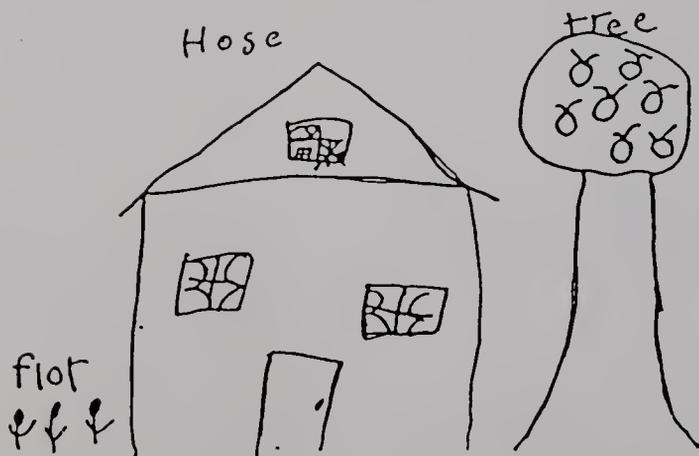
RELS  
LOVE ME  
I HOP  
TAK  
HAF  
AFA  
LOVE J.J. HARPER  
S MGS

APPENDIX C  
WRITING BOOKLET

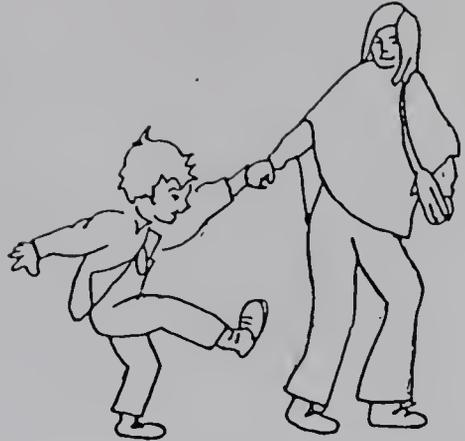
# The Writing Way

written by Connie Green

illustrated by Karen Kilgore  
and Gail Stromberg



Learning is a continuous process that begins long before children enter school. At home, children learn to walk, run, climb, feed themselves, and talk. Many children also learn to read and write at home.



Parents are not only their children's first teachers, they are also the most important teachers their children will ever have. The parent's role as a teacher does not stop when the child enters school. There is a great deal that parents can do to extend and reinforce classroom learning. In fact, many children are able to learn certain concepts more successfully at home because parents are more familiar with their children's own strengths and weaknesses, interests and emotions.

The home environment allows the child to work on a one-to-one basis with an adult who thinks that s/he is the most terrific kid in the world! For most children this is an ideal learning situation.

Many parents want to help their children at home but are confused about what materials and techniques to use. They do not want to teach their children the "wrong way" or use methods that would be inconsistent with methods used at school. This is a very understandable situation.

This booklet is designed to provide parents with ideas and techniques for helping their children in one important area of learning — writing. Explanations will also be given to help parents understand why these particular activities are both beneficial and enjoyable for children.





For years librarians and early childhood educators have been encouraging parents to read aloud to their young children. This is a rewarding experience for both parent and child, and one of the most important steps a parent can take in preparing his/het child for reading.

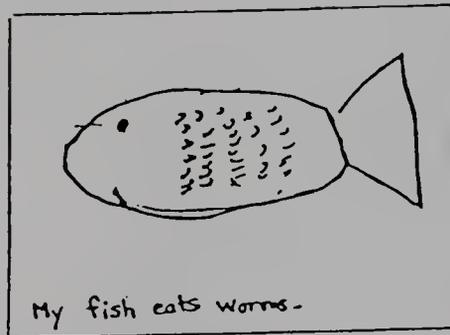
But .... did you know that writing is also an important step in learning to read?

There are three kinds of writing you can do with your child that will help him or her become a better reader and writer. These three types of writing will be described on the following

## #1 Be a secretary!

Take dictation from your child.

When you write for your child it helps him/her begin to understand the connection between speech, reading, and writing. For example, you could write a few words or a story about a picture s/he has drawn.



As you write the words, your child will begin to see that print is speech written down. Read the story back to your child. S/he will begin to learn that spoken words can be written down and read again and again. This is a fundamental concept for beginning readers.

\* REMEMBER \* Most kindergarten children are not ready to write stories by themselves. At first you will need to write almost everything for your child. As your child develops skill and interest in writing s/he will be able to write more and more without

#2 Write to your child and with your child.

Dear Jackie,  
I love you.  
Have fun at school.

Love,  
Mom



Your child could not have learned to talk if s/he had grown up in silence. Similarly, your child needs to be exposed to print and see adults writing if s/he is going to become a writer.

So . . . .

- \* Be a model of good writing. Let your child see you writing letters, holiday cards, and shopping lists. Encourage your child to write at the same time.
- \* Store books, magazines, and newspapers in places that are accessible to your child. Some books might be kept in the living or dining area so your child does not feel s/he has

\* Write to your child.  
 Little notes in a lunch box, at the breakfast table, or on a message board are lots of fun and encourage interest in reading and writing.

Dear Jocy,  
 Have a  
 happy day!  
 Love,  
 Dad

### #3 Encourage independent writing.

It is valuable for children to practice writing on their own. Parents and teachers have observed that writing develops naturally from drawing. As young children draw they begin to mimic the letters they see adults making. These marks are sometimes called "mock letters." Children may even tell adults the words or stories they believe they have written in mock letters.



— Remember — Don't correct your child's spelling. Invented spellings are an

As children learn letter names and a few letter sounds, they will be able to construct their own spellings for words. Researchers in education have found that this is an important phase for children to go through and will actually help them to become better spellers. Through experimenting with letters and sounds, young children learn the rules of written language in much the same way that babies learn to speak by experimenting and exploring with sounds.

Just as you learned to understand your child's early speech, you will soon be able to read your child's invented spellings. It doesn't take much time for a parent to read

I l v u . m o m m e

as

"I love you, mommy."

It will be fascinating to watch your child's growth in spelling during kindergarten, first, and second grade as s/he learns more about letter-sound relationships, reading, and writing.

Here are some suggestions for fostering independent writing:

\* Provide your child with a special place for writing and a variety of drawing and writing materials — crayons, pencils, wide and narrow markers



(usually favorites), various sizes and shapes of paper, and envelopes. Small chalkboards and plastic-coated memo boards are also fun for writing messages.

\* Be responsive to your child when s/he is writing. You can answer questions and listen to your child while you are preparing a meal or paying bills. You do not necessarily have to give your child your undivided attention every time s/he writes. But do let your child know that you think his/her writing is important.

\* Always read what your child has written. (Unless you have been told that it's a secret!)

\* Encourage and praise invented spellings. If your child asks you how to spell a word you might say, "How do you think you spell it? I'm sure I'll be able to read whatever you write." And you probably can!

CAUTION

Some children insist on spelling everything the "right way." Be supportive and spell words for your child if this is the case.

\* Please don't force your child to write. Learning rarely occurs when the teacher and learner are not motivated. Wait to suggest a writing activity until a time when you think your child will be responsive. Some children will need no encouragement at all to write, others will want an adult beside them. Try to be patient and responsive to your child's wishes.

Dear Mom I

Love you

Love Gail 😊

## Using the Home Writing Ideas

During the next eight weeks I would like for you to try some of the following ideas at home with your child. Most of these activities have been successful at school or were suggested by other parents.

The suggested activities are in no particular sequence. I hope that parents and children will choose the ones they think will be the most fun each week.

We will be sharing the home writing three days each week. It would be nice if each child could share something each of those days, but please do not feel pressured to write with your child if you do not have time on a particular day or if one of you is just not in the mood for writing.



## Using the Response Sheets

To help me gather information about your child's writing, I would like you to complete a response sheet and return it each Monday for the next eight weeks.

I know these responses will take time, but I think they will help us both learn more about your child's writing and ways we can work with him/her.

If you have any questions about the activities or the response sheets please contact me.

Thank you for your help.



## Home Writing Ideas

1. Lists - Children love writing all kinds of lists, i.e. favorite toys, friends to invite to a party, places to visit, telephone numbers, grocery lists. Let your child write as much as s/he wants to. Remember, it is o.k. for children to write words as they wish.

FRITOS  
ISCREAM  
MILK  
BRED

2. Notes and Letters - Try one or more of these ideas: thank you notes, letters to friends or teachers at school, letters to relatives or pen-pals, invitations.

Dear Granbma,  
PLEZ COM TO  
MY PARTY

3. Signs and Labels - Children love making signs for their rooms and possessions. Other ideas along this line might include place cards for Thanksgiving dinner, names for pets, and labels for inventions

JANES ROOM

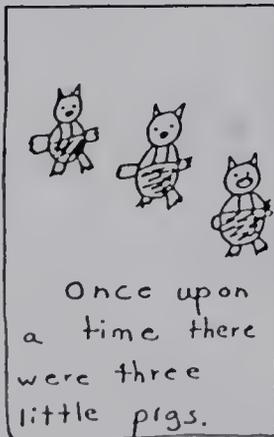
Bridae

## 4. Cards -



With so many holidays approaching this activity can be used several times. Children may also enjoy making get-well cards for classmates, friends, or relatives who are ill.

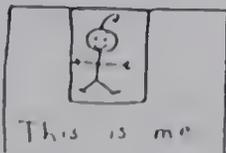
## 5. Books -



This idea can take on several forms:

- songbooks - collections of words to your child's favorite songs.
- poetry books - favorite poems copied from other sources and/or original poems you and your child write together.
- favorite story - Ask your child to retell a favorite story. You write the words; s/he illustrates.
- holiday books - monster book for Halloween, turkey book for Thanks giving, etc.

## 6. Captions -



Time to organize those old pictures? Let your child make an album of some of his/her favorites and dictate or write captions.

7. Calendar - Buy or make a large calendar with plenty of space for each day. Help your child write in special upcoming events.

15 Shantell's birthday party	16 Grandpa comes to visit
---------------------------------------	------------------------------------

8. Journals - Make or buy a small notebook. Several times a week ask your child about important events that happened at school, day care, or home. Write your child's words. Encourage your child to write in the journal or draw pictures.

<p>Oct. 25 - Today we went to the museum. I saw a 5- billion year old dinosaur.</p>
---

Many children will enjoy one or two activities more than others. It is fine for them to repeat activities as many times as they wish. Modify these activities to meet your child's interests and please let me know of any different ideas you try.

Thank you!

APPENDIX D  
RESPONSE SHEET

Home Writing Activity Response Sheet

Child's Name \_\_\_\_\_ Date \_\_\_\_\_

Place the number of the activity tried under each day. Then place the initial of the person the child wrote with next to each number:

- M = Mother
- F = Father
- S = Sister
- B = Brother
- G = Grandparent
- O = Other
- A = Alone

So, if your child did activity 7 with a sister, you would write 7-A. 9-A would mean the child did activity 9 alone.

Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.

What other activities did your child do which are not in the booklet?

Activity	Day
_____	_____
_____	_____
_____	_____

APPENDIX E  
OUTLINE OF PARENT WRITING WORKSHOP

## Outline of Parent Writing Workshop

### Purposes:

1. To familiarize parents with the development of writing in early childhood
2. To teach parents the three types of writing they can do with their children
3. To discuss ways that children learn to read by writing
4. To introduce home learning activities and distribute parent booklets
5. To instruct parents on how to complete weekly response sheets

### Define and differentiate between terms:

Writing/composing—Communicating ideas and feelings through the process of drawing/writing/dictating

Handwriting—The motor process of putting graphic symbols on paper

In this program, when we talk about writing we mean the process of communication—expressing thoughts and feelings through written symbols.

In many ways the home is the ideal situation for young children to learn to write. Children see real purposes for writing in the home.

Writing letters, telephone messages, cards, and notes to the baby-sitter are types of writing that go on in every home. Most children have learned the idea that writing conveys a message before they enter school.

Very young children do not distinguish between drawing and writing, but by age three most children who have seen adults or older children writing will begin to make mock letters and distinguish between writing and when they are drawing.

Earliest forms of writing (typically) look like this:

(Example 1)

This writing might look like scribbling to an adult, yet if you were to ask the child what she wrote she might tell us that it says: "I went to the museum on Sunday and I saw some bones and a bunch of frogs and the cave was scary."

This shows that the child understands the purpose of written language—to communicate ideas and feelings. This writing also shows that the child understands that writing moves horizontally across the page, is made up of lines, and that there is rhythm and flow to written language.

At first this type of writing will symbolize everything a child wants to say in writing. This story about the museum may hardly be distinguishable from tomorrow's story about E.T.. When your child was a year old a word like "ba-ba" or "dis" might mean anything. In early writing,  can symbolize any written message.

Beginning writers in our culture make horizontal figures across the page, usually from left to right, though right to left reversals

are very common. Chinese children write vertically, with short, slanted strokes, in imitation of adults they have seen writing:



The next step in the development of writing occurs as children become aware of the characteristics of letters and begin to write messages using strings of these mock or imitation letters: *W O E T O* might mean "I want a Pac-Man game for Christmas."

As children recognize the characteristics of letters, their writing begins to look more and more like real letters and words they have seen:

*J A N E* for Jane

Children are encouraged to write again and again when adults respond positively to their writing.

Children begin to develop an understanding of sound/letter relationships in several ways: by copying words, watching adults write, being read to, and practicing their writing independently.

Research in writing has shown that when children have learned just six letter/sound combinations they can begin to write their own words. The process by which children invent their own spellings involves much more thought than the process of memorizing spellings. When children discover how to spell words they usually begin with just the initial consonant. The letter "b" may stand for ball or bird. A letter may symbolize a whole word:

U for you                      r for are  
N for and                      IN N OUT

At the next stage children put together initial and final consonants to form words:

bd — bird      lv — love      hs — house

These sounds are most often pronounced in speech:

(Example 3)

After practicing with primarily consonant spellings children begin to add vowels and other conventions of spelling and punctuation. At first these may be overused, such as adding an "e" to the end of every word or putting periods after every word. As children gain practice writing words and phrases they begin to put words together to express their thoughts in sentences and stories. Children who learn to spell by inventing their own spellings actually become better spellers.

Being able to express oneself in writing is a valuable achievement in itself. But, as young children write they are also learning to read. Children love to read stories they have dictated or written themselves. Even if they cannot remember every word, they will remember the content (meaning) of their writing; and that is the essence of writing—getting meaning from print.

This all sounds fine, but, how can you, as parents, help with the development of this writing/reading process?

There are basically three kinds of writing you can do with your child to help him or her become a better writer and reader.

1. The first is to be a secretary and take dictation from your child.

When you write for your child it helps him/her begin to understand the connection between speech, reading,

and writing. For example, you could write a few words or a story about a picture he/she has drawn. As you write the words, your child will begin to see that print is speech written down. Read the story back to your child. She/he will begin to learn and read again and again. This is a fundamental concept for beginning readers.

Remember, most kindergarten children are not ready to write stories by themselves. At first you will need to write almost everything for your child. As your child develops skill and interest in writing she/he will be able to write more and more without you.

2. Write to your child and with your child.

Your child needs to see others writing if she/he is going to learn to write. One mother in my class last year wrote little notes on napkins and put them in her son's lunchbox. Like Ashley's mom, you could write an invitation to your child inviting him or her to a movie or picnic. Or, write a silly poem and place it in your child's cereal bowl. You'll have fun reading it together. Encourage grandparents and other relatives to write to your child regularly.

3. Write at the same time your child is writing. You could both write to grandma together or make out a joint grocery list.

Provide your child with a special place for writing and a variety of drawing and writing materials—crayons, pencils, wide and narrow markers (usually favorites), various sizes and shapes of paper and envelopes. Small chalkboards and plastic-coated memo boards are also fun for writing messages.

Remember, learning to invent spellings is a valuable way for children to learn about their language. Educational researchers have found that children who construct their own spellings for words actually become better spellers than those who learn to spell by memorizing.

Some children insist on spelling everything the "right way." Be supportive and spell words for your child if this is the case.

Distribute parent booklets.

Go over pages 12-14 and show examples of each writing idea.

Explain page 15, "Home Writing Activity Response Sheet."

Fill out one response sheet from memory of any writing your child did at home last week.

The study will last through the first week of December.

Send in your child's writing on Tuesday, Wednesday, and Friday.

We will share writing in a small group for about 15 minutes at the end of the day.

Response sheets should be sent to school each Monday morning.

[Recapitulate purposes, ask for questions, reactions.]

APPENDIX F  
TEACHER LETTERS

October 4, 1982

Dear Parents,

You and your child have been selected to participate in a study of parent involvement in writing. You are invited to attend a parent workshop next Saturday, October 9, from 10:00-11:30 a.m. in our classroom. At the workshop you will be given a booklet of home writing activities to use with your child during the eight weeks of the study. Techniques and methods for helping your child with writing will be discussed.

We have enjoyed working with you and your children during the first six weeks of school. We look forward to extending the home/school participation through this project.

Please read the following letter and let us know if you have any questions.

If you would like to participate in the study but cannot attend the workshop just let us know.

Thanks for your cooperation!

October 14, 1982

Dear Parents,

This is just a reminder that we will be sharing writing activities on Tuesday, Wednesday, and Friday. A few children have been "observers" during sharing time and would like to bring in some writing they have done at home.

The journals, stories, books, and letters that many children have brought in are delightful. Some of you have come up with some very creative ideas for writing to and with your children.

Thank you for your continuing cooperation.

October 25, 1982

Dear Parents of Home Writers,

Halloween brings with it many sensory images that can be described aloud by children and written down by parents. Encourage your child to describe how things look, sound, taste, feel, and smell.

"Let's write about a witch."

"How does her face look?"

"How does it taste?"

"What would happen if you ate it?"

Have your child draw some scary pictures to accompany his/her story and bring both to school for sharing.

Your child might also enjoy making Halloween cards to share with family members and friends.

Please remember to send in one of the response sheets at the beginning of each week. Our sharing days continue to be Tuesday, Wednesday, and Friday.

Thank you,

November 15, 1982

Dear Parents and Home Writers,

Help your children channel some of their Thanksgiving excitement into writing activities. Here are some ideas you might try:

1. Make Thanksgiving cards
2. Draw and label pictures of foods eaten on Thanksgiving
3. Retell the Thanksgiving story they heard at school or one they saw on T.V.
4. Make placecards for Thanksgiving dinner
5. Make a grocery list of foods to buy for Thanksgiving

The children really enjoy sharing their own writing and seeing what others have done. Thanks for all your help.

November 29, 1982

Dear Parents of Home Writers,

This is the final week of the home writing study. The time has gone by quickly. Over the past nine weeks I have enjoyed seeing young writers enthusiastically sharing their letters, stories, lists, and signs. Their interest in writing and their composing abilities have flourished.

I have greatly appreciated the time and support you have contributed to this research project. I sincerely hope that both you and your child have benefited from your participation. I will be sharing the results of the study with you sometime next semester.

In the meantime, let's get in the holiday spirit for the final week of home writing. Holiday cards and letters to Santa are always popular. You might also consider purchasing a small book of unlined drawing paper and letting your child make a gift book for a special friend or relative.

I look forward to seeing your holiday writing ideas.

Happy Holidays,

APPENDIX G  
PARENT INTERVIEWS

## Parent Interviews

#1

- T: What ideas in the booklet did you and your child enjoy the most?
- P: I would say that she enjoyed writing stories with pictures or captions and lists. Those two mainly.
- T: Were any of the ideas in the booklet too difficult or hard to understand?
- P: No.
- T: Could you describe your interaction with Lorraine during the writing time? What did you all do together?
- P: Actually, she was more on top of it than I was. She would a lot of times just do it by herself or with her sister or brother.
- T: So she kind of initiated it most of the time?
- P: Most of the time, but not always. Little kids can't remember everything, just like us. It's kind of good, because when I would forget, she would remember, and when she would forget, I would remember. I just enjoyed spending that time with her, and knowing that I had to spend that time with her. Then realized that she really knew a lot more, and could write a lot more than I was aware of, and had a lot more interesting ideas.
- T: You know, she made up some fantastic stories.
- P: She really enjoyed that. This morning she had a sad look on her face. Her brother asked her what was wrong, and she said today is writing day, and I didn't do any writing! Even though it's over, I would like to keep it up. She really got into the routine and the habit. It would probably be a detriment if we just stopped.
- T: What did you learn about Lorraine when you were writing together?
- P: I learned that kids somehow need to develop and be more individualized than following their peers. It gets me frustrated sometimes, like with her Christmas list. Instead of just automatically thinking

of what they want, you're thinking of everything else that's happening at that time. I learned that with her, she has good handwriting, or that she could be a lot better. She developed better writing as she went along. She had some good ideas, and as long as a child's mind is simulated, there's more potential. They just don't remain stagnant.

#2

T: What ideas in the booklet did your child enjoy the most?

P: She liked writing notes; I think notes.

T: Were there any ideas that were difficult or hard for you to understand in the booklet?

P: No.

T: If I revised the booklet, do you have any suggestions for me about additions, or things that you would change that would help make it easier for parents?

P: No. I thought it was clear, and I thought there were plenty of suggestions. I remember at the meeting over at Finley several parents had a few more ideas to add to it, but I thought it was just variations on the themes you had already spelled out.

#3

T: What ideas in the writing booklet did your child enjoy the most?

P: The cards, making name tags, placethings. He enjoyed stories the most. I wasn't sure of a category to put that under, but he enjoyed writing his own stories the most.

T: Were any of the ideas too hard or difficult for him to understand?

P: For him or for me? No.

T: Could you describe your interactions with Seth during the writing times?

P: Sometimes real positive. Sometimes I worked a little harder on getting him to do it. But he was ready to do it, he definitely was inspired. And could write two or three at a time. So, it was good.

T: So sometimes he needed a little push?

P: Sometimes, like to write a letter to his grandmother.

T: He really enjoyed bringing it in.

P: Yes, that in the end became real important. He decided that if it was xeroxed it was really good! So he was happy if it was xeroxed.

T: What did you learn about him while you were writing together?

P: That he could do a lot more than I took the time to do with him.

T: I thought some of his lists were really interesting. Like when he talked about school. Did he think of that himself?

P: Yes; if I would say let's do something, he'd say he didn't know what to do. I said let's think about things you like about school or things you like about playing outside or whatever you like to do.

T: Was he getting more independent or self-starting towards the end?

P: Yes, he would just take out the paper and say I have to write this story today. Or let's make a list. That was all on his own. By the end he was totally self-motivated.

T: Did you see any effects on your family as a result of the home writing? Were any of the other family members involved in it?

P: It was another activity that people took time to do together.

- T: Did he write with his sister much?
- P: Yes, and he wrote with his father. It was a different activity for them to do together.
- T: Did you and your husband discuss the home writing together?
- P: I explained it to him, and I helped him to understand about the spelling a little bit, and that he could write it. So I had to teach him.
- T: Seth is such a good reader, though, that he doesn't really need the spelling as much as some of the other kids.
- P: He doesn't but because of the frustration level sometimes. If he asks me how to spell something, I'll tell him to listen. If he tries three times and says what comes next, I just do it. So, he could be more inventive.
- T: He's freed up a little bit, if I'm the only one in the room. Did you notice any effects on his brothers or sisters?
- P: His sister enjoyed helping sometimes. She had a good time with him. I think everyone just took different time, other than usual activities.
- T: Did he think of it as homework?
- P: He likes work, so he would like to do it to have something to share. I don't know if he thought of it as homework.
- T: If I would revise the booklet, would you have any suggestion for me?
- P: One would just be that added thing for stories to give it a category. I'm not sure if there were other things.

#4

T: What ideas in the booklet did your child enjoy the most?

P: I think one of the suggestions would be that she especially liked dictating stories in the beginning, and then got into the lists and settled finally on the letter and notes. She's written a million notes!

T: Were any of the ideas too hard or difficult to understand?

P: No. I don't think so.

T: Describe your interactions with your child during the writing times.

P: In the beginning, as I said, I would dictate things or she would dictate and I would write them down as fast as I could. Then I encouraged her to have shorter stories that she could write herself. I would write them down and then she would copy them. I was encouraging her to try and spell herself. So, after a period where I would spell it and write it down she would copy it, she got into sounding it out and once she did that she just kept on writing.

T: What did you learn about your child when you were writing together?

P: I learned that she's just as independent as I thought; maybe more so. Especially likes to do it by herself when she understands something. She loves stories and I learned that she's quite able to make them up herself.

T: Did you notice any effects on your family as a result of the home writing?

P: It brought us together in enjoying what she was writing. We especially chuckled at the home spellings, and enjoyed her learning to spell. And the fact that she's now doing her own letters and notes, accompanied with drawings.

T: Did you and your husband discuss the home writing together?

P: Yes. As I said, we really enjoyed deciphering the heiroglyphics! I learned a lot from her lists, as to the priorities in her life, her desires for food!

T: Did any other members of the family participate?

P: There are only the three of us.

T: Do you have any suggestions if the booklet's revised?

- P: I guess because she's so visual, and liking to draw, toward the end she'd like to get into that—drawing and labeling things, captions. Drawing is still her primary mode of expression. Now she's able to accompany that with her own spelling so I see in her much more interest in learning to read herself because of that.
- T: Are there additional activities you'd suggest?
- P: Aside of the emphasis of the combined visual-writing, the activities you suggested were really good. The topical things, especially.
- T: What would you tell other parents about the study?
- P: Well, I think it's great. I feel very appreciative of your taking the time to do this with them. I feel they're going to get a lot out of it. Her writing at home has been a primary interest. She'll go in her room or in the living room, and write for a long, long time, or draw and label things. In the very beginning, I would say why don't we make a list or why don't we write something. I didn't have to encourage at all after the first week or two. She'd just sit down and write. Her writing thing at the computer—she'd be proud of it, but that's it—I don't hear anything else from it.

#5

T: What ideas in the booklet did your child enjoy the most?

P: I think she likes writing the notes and the letters, knowing that she's writing to somebody. We're doing a Christmas book for her Grandmother, and she's enjoying that.

T: Were there any ideas that are too hard or difficult for her to understand?

P: No, I don't think so. The one thing that she liked to do also, she liked to tell stories about things, like when she found the butterfly, and she wanted to tell the story about it. I wasn't exactly sure sometimes where to put it because even though you had writing things, it was copying things—it wasn't her own. I wasn't real sure where you wanted that.

T: That's neat that she would write stories about found objects.

P: She did that a lot, especially at the beginning.

T: Would you describe your interactions with Tracy during the writing times?

P: It started out that I would sit down with her and we would do it one to one or her brother would sit with her and help her. She's not one to make up the words too much. She needs to know how they're spelled. As we got into it more, she would do it on her own. She'd holler at me, how do you spell this, Mom? I wouldn't have to sit down and do it.

T: What did you learn about her while you were doing the writing together?

P: She's a smart little girl! Of course, I knew that, but she enjoys the writing.

T: Did you notice any effects on the rest of the family as a result of the home writing?

P: Not really at first. He kind of enjoyed doing it with her. That wore off pretty fast; he didn't want to have to sit there with her. My husband didn't really do it with her. But she would come to her Daddy and ask how to spell things. She likes to share things.

T: Did you and your husband discuss it at all?

- P: I told him about it, but he's been so busy that we don't have much time to do it. She has written some notes to her Daddy. I love you very much, things like that.
- T: Do you have any suggestions for me if I revise the booklet or continue the study?
- P: I don't know. Maybe if you added one of making up stories of their own. You might want to include that in there. It was pretty complete.
- T: What would you tell other parents about the study?
- P: I think it's a great thing for them to do. A lot of learning took place. I see this going over to the computers. She's learned words and she can write them. She goes off and writes notes to her little friends.
- T: So, you see this continuing?
- P: Yes, I see her writing a lot more, although she always likes to write. She always liked to write in word books, but she's doing more writing on her own of real words, not pretend writing.
- T: Do you have any other comments?
- P: Thank you very much! She really enjoyed it, she liked the idea of having homework to do. She was bored before, and this gave her a chance to go on her own and do things.

APPENDIX H  
LEAST SQUARES MEANS  
FOR CONTROL AND TREATMENT GROUPS  
IN WRITING ACHIEVEMENT

Least Squares Means  
for Control and Treatment Groups  
in Writing Achievement

	Control	Treatment
Posttest 1	2.98	3.55
Posttest 2	3.22	3.34
Posttest 3	2.87	3.25

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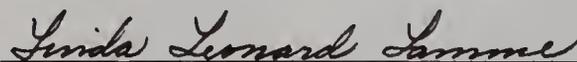
## BIOGRAPHICAL SKETCH

Constance R. Green was born on August 20, 1950, in Hackensack, New Jersey. She moved to Fort Pierce, Florida, in 1955 and obtained her elementary, secondary, and junior college education there. She graduated from Florida Atlantic University in 1972 with a bachelor of arts in education degree and in 1978 with a master of arts in education.

Connie taught kindergarten and elementary school in Fort Pierce for six years. While working on her doctorate she taught kindergarten at P. K. Yonge Laboratory School for two years and was a primary specialist there for one year.

Connie is the mother of three daughters: Christy, Marie, and Emily. Her family enjoys swimming and hiking together.

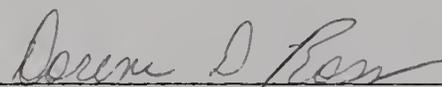
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



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Linda Leonard Lamme, Chair  
Associate Professor of General  
Teacher Education

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Dorene D. Ross  
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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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This dissertation was submitted to the Graduate Faculty of the Division of Curriculum and Instruction in the College of Education and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August 1984

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Dean for Graduate Studies and Research